

# D-SUB/IP67 D-SUB CONNECTORS

# CONEC®

TECHNOLOGY IN CONNECTORS™



IP67  
Hoods  
POWER  
Combination D-SUB  
MECH. ENGINEERING  
Filter D-SUB/IP67 D-SUB  
COMMUNICATIONS  
Conec SlimCon  
STANDARD  
customized





## TECHNOLOGY IN CONNECTORS™

For more than 40 years, CONEC Elektronische Bauelemente GmbH has been developing, producing and marketing high-quality connectors, patch cable and single ended cable as well as enclosure technology.

CONEC products are used in automation, telecommunications and energy technology, machine manufacturing, agriculture and medical technology, transportation and the aviation industry.

The headquarters in Lippstadt has a large research and development department, its own tool-making department, a CNC-turning department and a synthetics injection moulding plant.

As part of the Amphenol Group, CONEC participates in the growth and development opportunities of a globally active group and at the same time acts flexibly and quickly as a medium-sized company in order to optimally adapt to changing customer needs.

CONEC Germany, Lippstadt




CONEC Canada, Brampton



CONEC USA, Garner



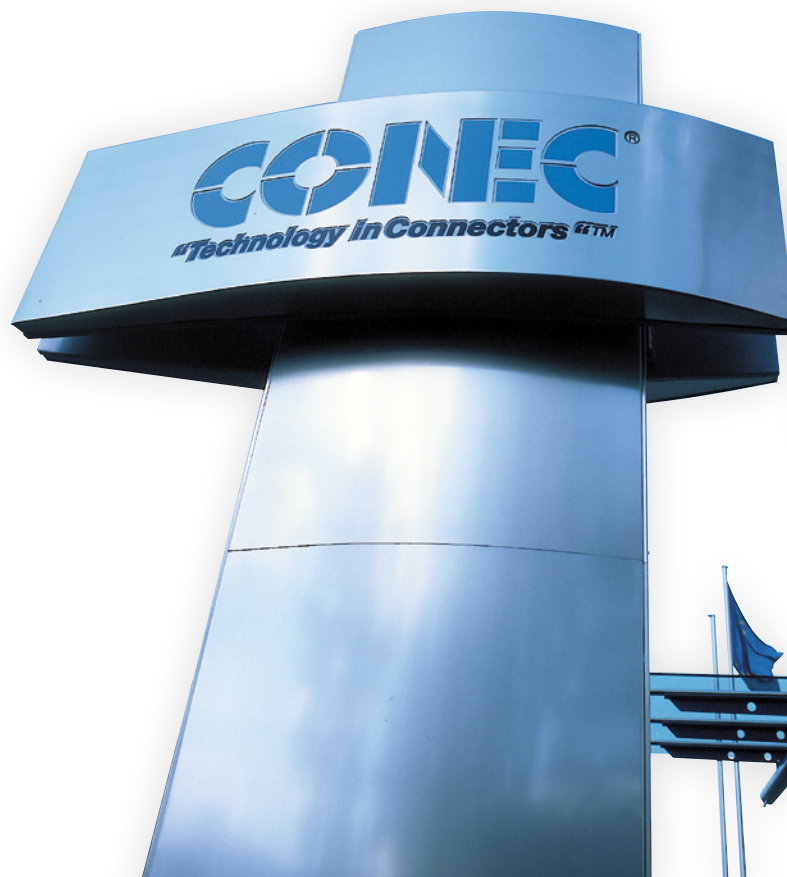




In addition to a variety of connectors for all current standards, our particular strength is the integrated moulding of components and assemblies and the development of customized solutions.

CONEC is a global player with its own subsidiaries and/or production sites in Canada, the USA, China, the Czech Republic, Poland and France.

The company's quality management ensures high quality by applying the international standards DIN EN ISO 9001. Depending on the product family, CONEC industrial connectors are tested and approved in accordance with UL, CSA or VDE.



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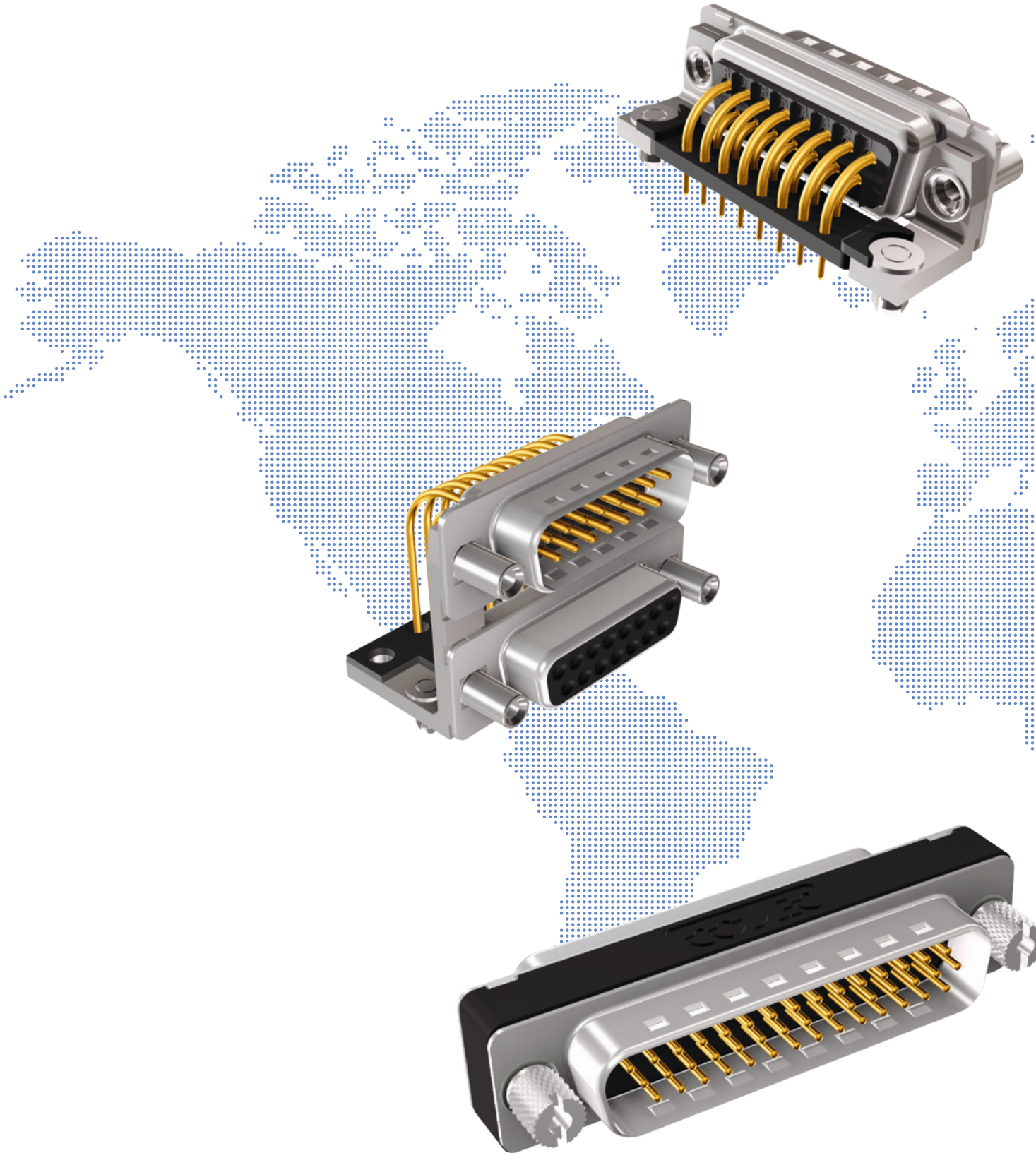
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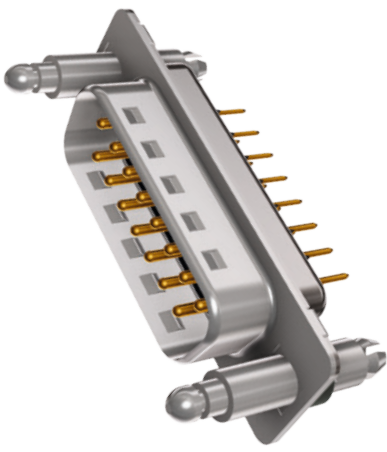
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SECTION 1

# D-SUB CONNECTORS







## D-SUB CONNECTORS

### Product specification

Basic material	D-SUB 9-, 15-, 25-, 37-, 50-pos.	D-SUB High Density 15-, 26-, 44-, 62-, 78-pos.
Contact	Copper alloy	
Contact plating	Gold over nickel	
Insulator	PBT GF UL 94 V-0	
Shell	Steel tin plated / nickel plated (on request brass tin plated or stainless steel)	
Technical Data		
Test voltage	1000 V, 50 Hz, for 1 Minute	
Working voltage	125 V AC/DC depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1	
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)
Contact resistance	max. 10 mΩ prior to stressing ΔR max. 10 mΩ after stressing per IEC 60807-2	
Insulation resistance	≥ 5 GΩ	
Clearance and creepage distance	Contact - Contact ≥ 1.0 mm / 0.04" Contact - earth ≥ 1.2 mm / 0.047"	≥ 0.6 mm / 0.024"
Operating temperature	-55 °C to +125 °C	
Mating and unmating forces	9-pos. ≤ 30 N 15-pos. ≤ 50 N 25-pos. ≤ 83 N 37-pos. ≤ 123 N 50-pos. ≤ 167 N	15-pos. ≤ 50 N 26-pos. ≤ 84 N 44-pos. ≤ 120 N 62-pos. ≤ 170 N 78-pos. ≤ 200 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles	

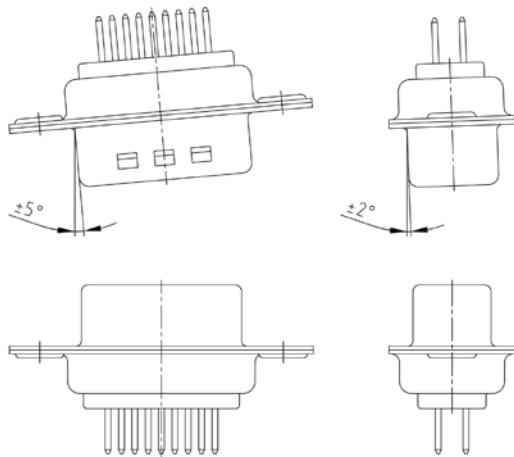
Technical specifications are subject to change without notice.



# D-SUB CONNECTORS

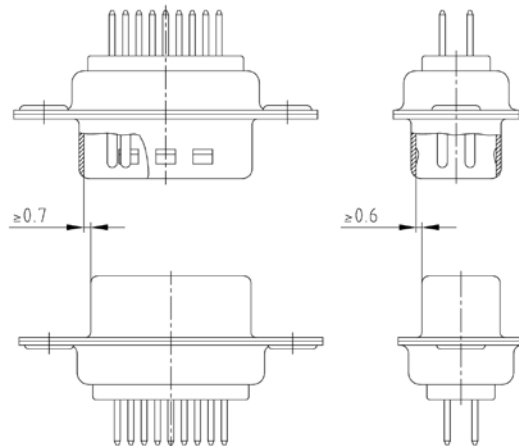
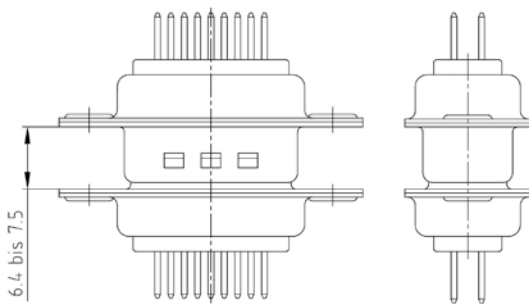
## Mating conditions

### Max. tilt angle for connector mating



### Range for safe contact

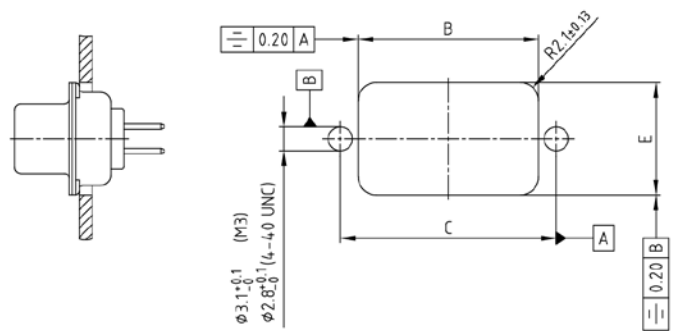
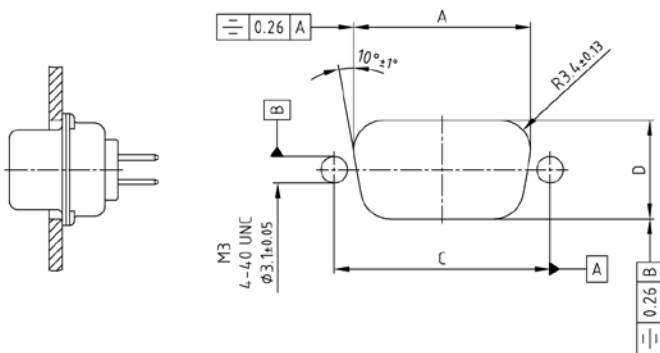
### Lock-in range



## Panel cut-out

### Back panel mounting

### Front panel mounting



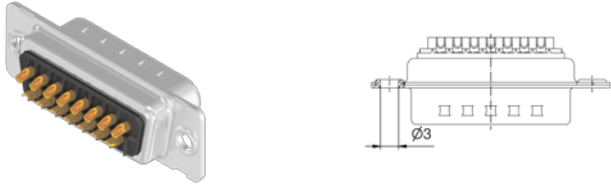
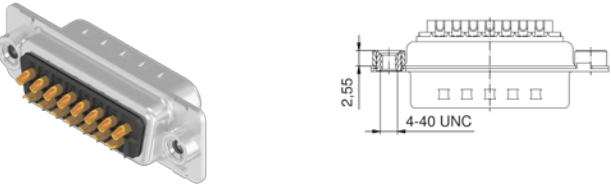
Shell size	No. of poles	A ±0.1	B ±0.1	C ±0.1	D ±0.1	E ±0.1
1	9 15	20.50	20.90	25.00	11.40	13.00
2	15 26	28.80	29.20	33.30	11.40	13.00
3	25 44	42.50	42.90	47.04	11.40	13.00
4	37 62	59.10	59.40	63.50	11.40	13.00
5	50 78	56.30	57.00	61.10	14.10	15.80

Technical specifications are subject to change without notice.

## D-SUB CONNECTORS Standard

Solder cup  
Precision machined contacts, AWG 20

Through-hole Ø 3 mm

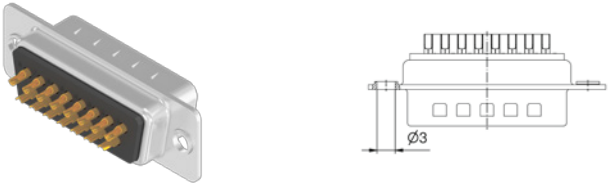
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	9	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10019X	163A11069X	
	15					164A10029X	163A11079X	
	25					164A10039X	163A11089X	
	37					164A10049X	163A11099X	
	50					164A10059X	163A11109X	
<b>4-40 UNC threaded insert</b>								
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10219X	163A11269X	
	15					164A10229X	163A11279X	
	25					164A10239X	163A11289X	
	37					164A10249X	163A11299X	
	50					164A10259X	163A11309X	

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## D-SUB CONNECTORS Standard

Solder cup  
Stamped contacts, AWG 20

Through-hole Ø 3 mm

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	3	125		3	302A10019X	301A10019X	
	15					302A10029X	301A10029X	
	25					302A10059X	301A10059X	
	37					302A10069X	301A10069X	
	50					302A10079X	301A10079X	

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

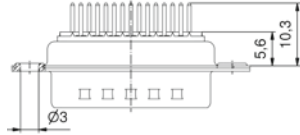
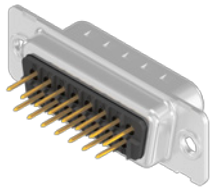


## D-SUB CONNECTORS Standard

Solder pin, straight  
Precision machined contacts

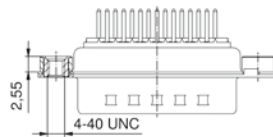
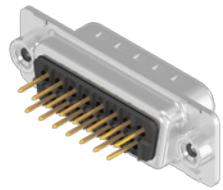
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole  $\varnothing$  3 mm



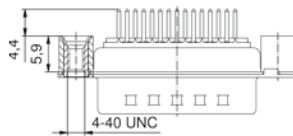
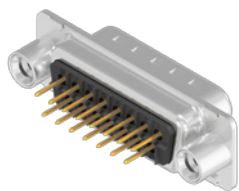
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)	125	E202784	3		164A10069X
15						163A11129X
25						163A11139X
37						163A11149X
50						163A11159X

4-40 UNC threaded insert



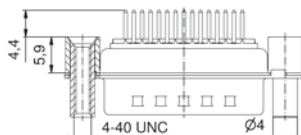
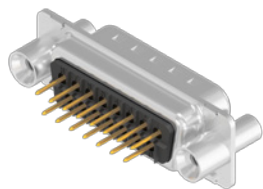
09	75 (UL) / 5 (CSA VDE)	125	E202784	3		164A10319X
15						163A11369X
25						163A11379X
37						163A11389X
50						163A11399X

4-40 UNC threaded rear spacer



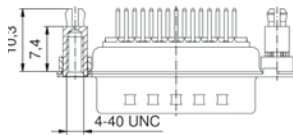
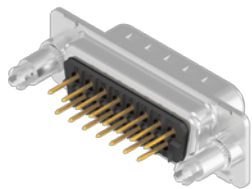
09	75 (UL) / 5 (CSA VDE)	125	E202784	3		164A12029X
15						163A13629X
25						164A12039X
37						163A13639X
50						163A13649X

4-40 UNC front, threaded rear spacer



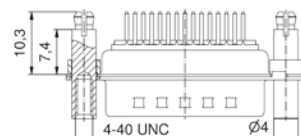
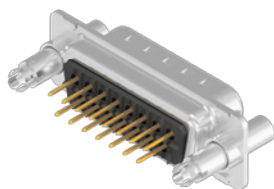
09	75 (UL) / 5 (CSA VDE)	125	E202784	3		164A12049X
15						163A13659X
25						164A12059X
37						163A13669X
50						164A12069X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm



09	75 (UL) / 5 (CSA VDE)	125	E202784	3		164A12129X
15						163A13729X
25						164A12139X
37						163A13739X
50						163A13749X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

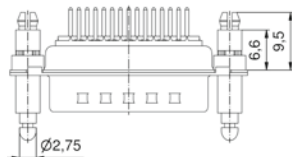


09	75 (UL) / 5 (CSA VDE)	125	E202784	3		164A12149X
15						163A13759X
25						164A12159X
37						163A13769X
50						164A12169X

## D-SUB CONNECTORS Standard

### CONEC SnapLock, Solder pin, straight Precision machined contacts

SnapLock bolt, Clip for PCB 1.6 mm [suitable for CONEC SnapLock hoods]



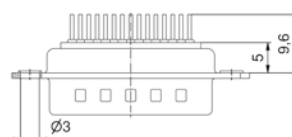
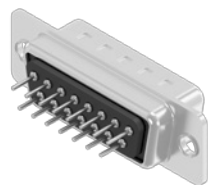
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	7.5 (UL) / 5 (CSA VDE)	125	E202784	3	16-002143	16-002093
15					16-002153	16-002103
25					16-002163	16-002113
37					16-002173	16-002123
50					16-002183	16-002133

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles

## D-SUB CONNECTORS Standard

### Solder pin, straight Stamped contacts

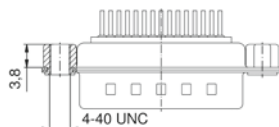
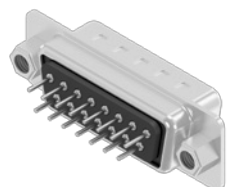
Through-hole Ø 3 mm



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
09	3	125		3	DLS1XS4AD01X	DLS1XP4AD01X
15					DLS2XS4AD01X	DLS2XP4AD01X
25					DLS3XS4AD01X	DLS3XP4AD01X
37					DLS4XS4AD01X	DLS4XP4AD01X
50					DLS5XS4AD01X	DLS5XP4AD01X

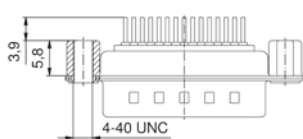
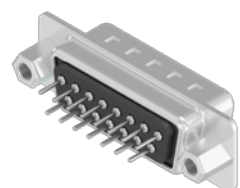
Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

4-40 UNC threaded insert



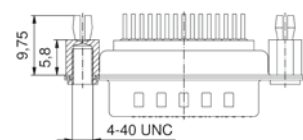
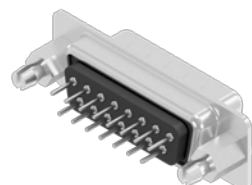
09	3	125		3	DLS1XS4AG06X	DLS1XP4AG06X
15					DLS2XS4AG06X	DLS2XP4AG06X
25					DLS3XS4AG06X	DLS3XP4AG06X
37					DLS4XS4AG06X	DLS4XP4AG06X
50					DLS5XS4AG06X	DLS5XP4AG06X

4-40 UNC threaded rear spacer



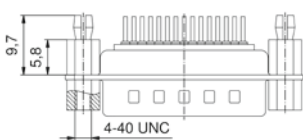
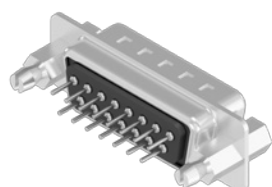
09	3	125		3	DLS1XS4AA37X	DLS1XP4AA37X
15					DLS2XS4AA37X	DLS2XP4AA37X
25					DLS3XS4AA37X	DLS3XP4AA37X
37					DLS4XS4AA37X	DLS4XP4AA37X
50					DLS5XS4AA37X	DLS5XP4AA37X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm



09	3	125		3	DLS1XS4AA35X	DLS1XP4AA35X
15					DLS2XS4AA35X	DLS2XP4AA35X
25					DLS3XS4AA35X	DLS3XP4AA35X
37					DLS4XS4AA35X	DLS4XP4AA35X
50					DLS5XS4AA35X	DLS5XP4AA35X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

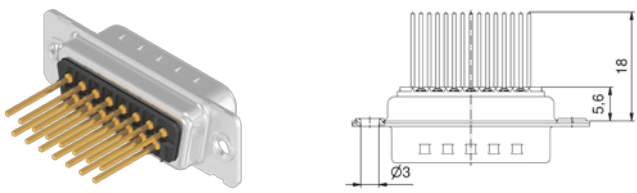
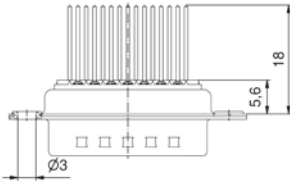


09	3	125		3	DLS1XS4AA39X	DLS1XP4AA39X
15					DLS2XS4AA39X	DLS2XP4AA39X
25					DLS3XS4AA39X	DLS3XP4AA39X
37					DLS4XS4AA39X	DLS4XP4AA39X
50					DLS5XS4AA39X	DLS5XP4AA39X

## D-SUB CONNECTORS Standard

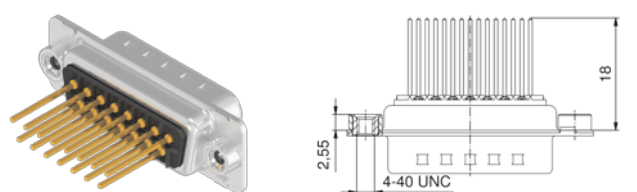
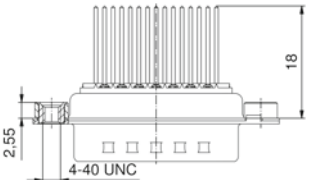
Wire wrap  
Precision machined contacts

Through-hole Ø 3 mm

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10119X	163A11169X
	15					164A10129X	163A11179X
	25					164A10139X	163A11189X
	37					164A10149X	163A11199X
	50					164A10159X	163A11209X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

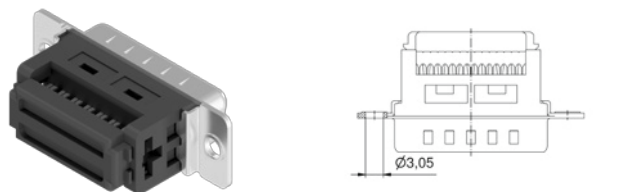
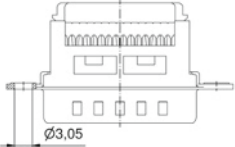
4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10419X	163A11469X
	15					164A10429X	163A11479X
	25					164A10439X	163A11489X
	37					164A10449X	163A11499X
	50					164A10459X	163A11509X

## D-SUB CONNECTORS Standard

IDC for flat cable  
Stamped contacts, AWG 26-28

Through-hole Ø 3 mm

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	1	125		3	302A10089X	301A10089X
	15					302A10099X	301A10099X
	25					302A10109X	301A10109X
	37					302A10119X	301A10119X

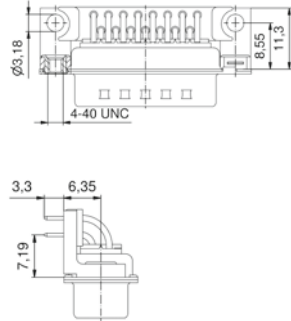
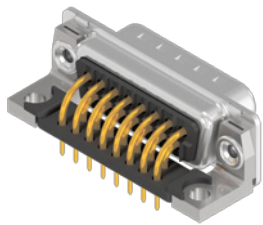
Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles  
Connector includes strain relief

## D-SUB CONNECTORS Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert



No. of poles

Current rating [A]

Working voltage [V]

UL-File

Quality class

Part No. Socket contact Part No. Plug contact

09

15

25

37

50

75 (UL) / 5 (CSA VDE)

125

E202784

3

164A11519X

163A13069X

164A11529X

163A13079X

164A11539X

163A13089X

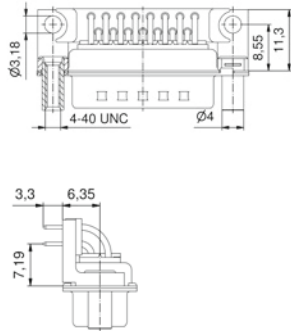
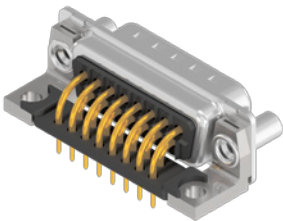
164A11549X

163A13099X

164A18969X

163A18549X

### 4-40 UNC front spacer



09

15

25

37

50

75 (UL) / 5 (CSA VDE)

125

E202784

3

164A16929X

163A16519X

164A16939X

163A16529X

164A16949X

163A16539X

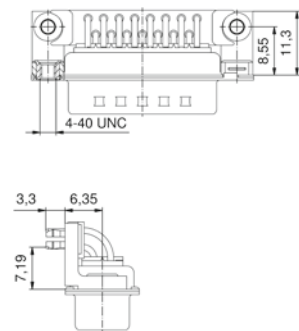
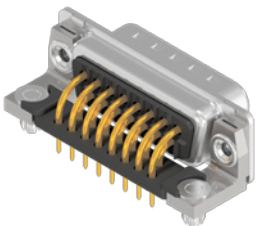
164A16959X

163A16549X

164A19019X

163A18589X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



09

15

25

37

50

75 (UL) / 5 (CSA VDE)

125

E202784

3

164A17939X

163A17529X

164A17949X

163A17539X

164A17959X

163A17549X

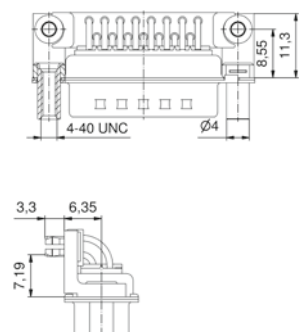
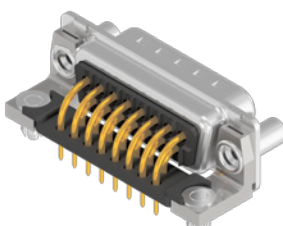
164A17969X

163A17559X

164A18989X

163A18569X

### Clip for PCB 1.6 mm, 4-40 UNC front spacer



09

15

25

37

50

75 (UL) / 5 (CSA VDE)

125

E202784

3

164A19039X

163A18609X

164A19049X

163A18619X

164A19059X

163A18629X

164A19069X

163A18639X

164A19079X

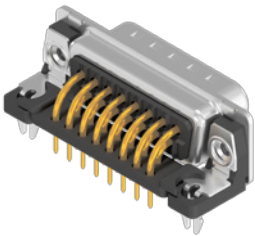
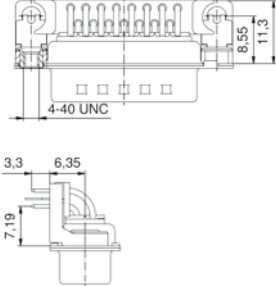
163A18649X



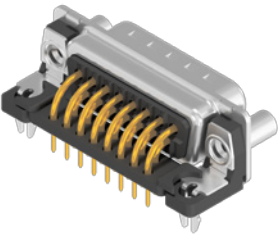
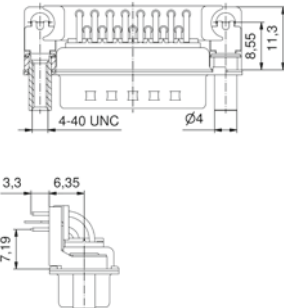
**D-SUB CONNECTORS**  
Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A18809X	163A18389X	
	15					164A18819X	163A18399X	
	25					164A18829X	163A18409X	
	37					164A18839X	163A18419X	

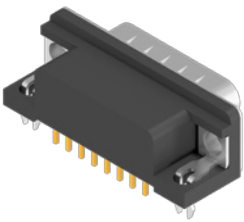
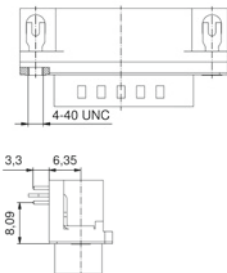
Clip for PCB 1.6 mm, 4-40 UNC front spacer

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A18889X	163A18469X	
	15					164A18899X	163A18479X	
	25					164A18909X	163A18489X	
	37					164A18919X	163A18499X	

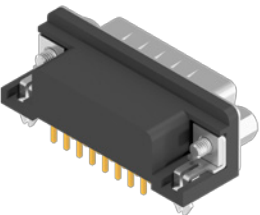
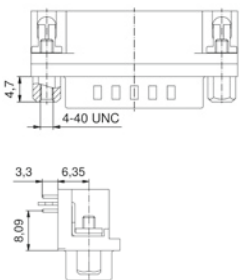
**D-SUB CONNECTORS**  
Standard

Solder pin, angled, .318"/8.09 mm  
Stamped contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	3	125		3	302A11339X	301A11029X	
	15					302A11349X	301A11039X	
	25					302A11359X	301A11049X	
	37					302A11369X	301A11059X	

Clip for PCB 1.6 mm, 4-40 UNC front spacer

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	3	125		3	302A11249X	301A10939X	
	15					302A11259X	301A10949X	
	25					302A11269X	301A10959X	
	37					302A11279X	301A10969X	

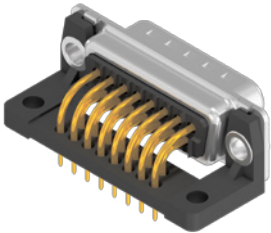
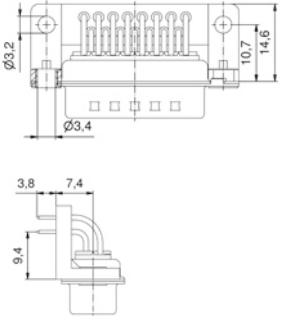
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

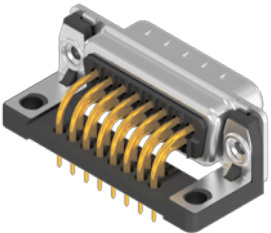
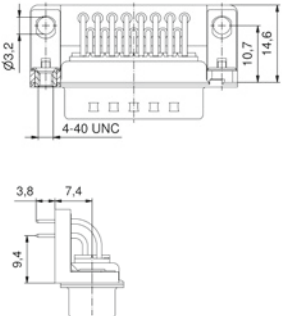
## D-SUB CONNECTORS Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

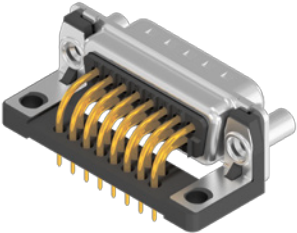
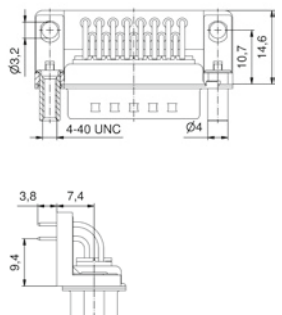
Through-hole  $\varnothing$  3,4 mm

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A10669X	163A11719X	
	15					164A10679X	163A11729X	
	25					164A10689X	163A11739X	
	37					164A10699X	163A11749X	
	50					164A10709X	163A11759X	

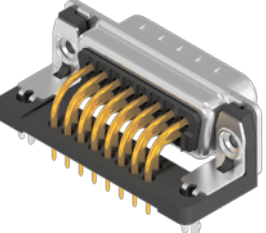
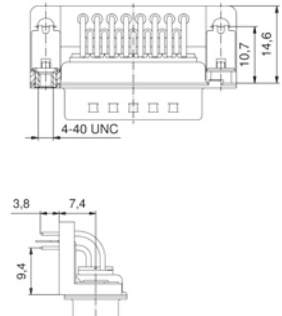
Grounding strap, 4-40 UNC threaded insert

 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A12329X	163A14119X
	15					164A12339X	163A14129X
	25					164A12349X	163A14139X
	37					164A12359X	163A14149X

Grounding strap, 4-40 UNC front spacer

 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A12229X	163A13829X
	15					164A12239X	163A13839X
	25					164A12249X	163A13849X
	37					164A12259X	163A13859X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	164A12969X	163A14489X
	15					164A12979X	163A14499X
	25					164A12989X	163A14509X
	37					164A12999X	163A14519X
	50					164A19139X	163A18709X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**D-SUB CONNECTORS**  
Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC front spacer

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A13089X	163A14609X
	15					164A13099X	163A14619X
	25					164A13109X	163A14629X
	37					164A13119X	163A14639X
	50					164A19159X	163A18729X

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

Part No. Socket contact Part No. Plug contact

Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A10969X	163A12019X
	15					164A10979X	163A12029X
	25					164A10989X	163A12039X
	37					164A10999X	163A12049X
	50					164A18739X	163A18319X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	164A16769X	163A16359X
	15					164A16779X	163A16369X
	25					164A16789X	163A16379X
	37					164A16799X	163A16389X
	50					164A18759X	163A18339X

**D-SUB CONNECTORS**  
Standard

Solder pin, angled, .370" / 10.3 mm  
Stamped contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC front spacer

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

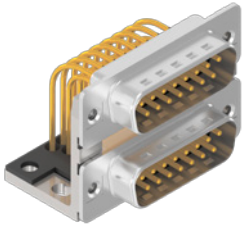
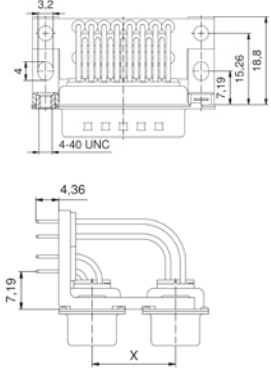
Image	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	3	125		3	302A10779X	301A10679X
	15					302A10789X	301A10689X
	25					302A10799X	301A10699X
	37					302A10809X	301A10709X

## D-SUB CONNECTORS Dual Port

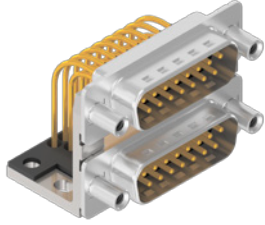
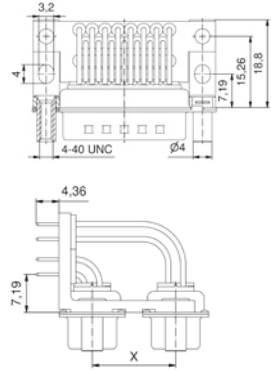
Plug upper - Plug bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

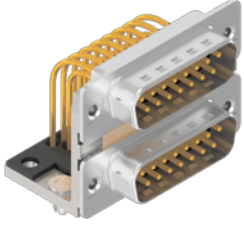
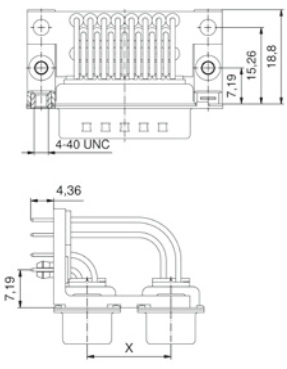
### 4-40 UNC threaded insert

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A15199X
	15/15						163A15209X
	25/25						163A15219X
	37/37						163A15229X
	09/09					163A15519X	
	15/15					163A15529X	
	25/25					163A15539X	
	37/37					163A15549X	

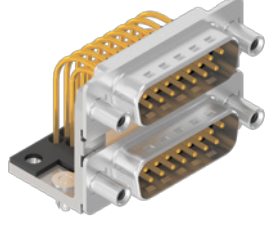
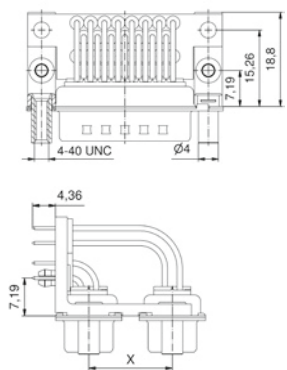
### 4-40 UNC front spacer

 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A15359X
	15/15						163A15369X
	25/25						163A15379X
	37/37						163A15389X
	09/09					163A15679X	
	15/15					163A15689X	
	25/25					163A15699X	
	37/37					163A15709X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A19969X
	15/15						163A19979X
	25/25						163A19989X
	37/37						163A19999X
	09/09					163A19489X	
	15/15					163A19499X	
	25/25					163A19509X	
	37/37					163A19519X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A19329X
	15/15						163A19339X
	25/25						163A19349X
	37/37						163A19359X
	09/09					163A19649X	
	25/25					163A19659X	
	25/25					163A19669X	
	37/37					163A19679X	

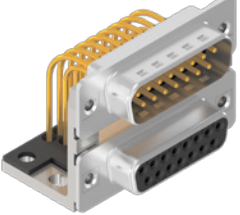
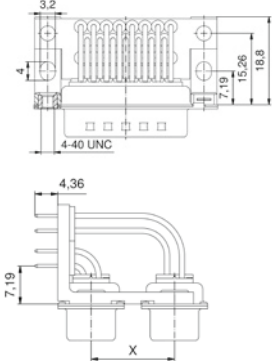


## D-SUB CONNECTORS Dual Port

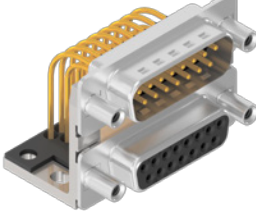
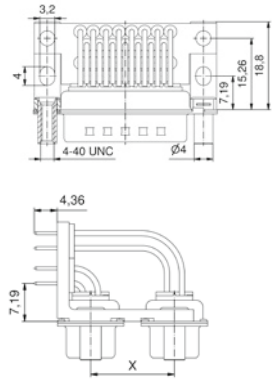
Plug upper - Socket bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

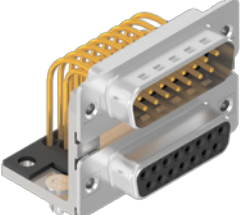
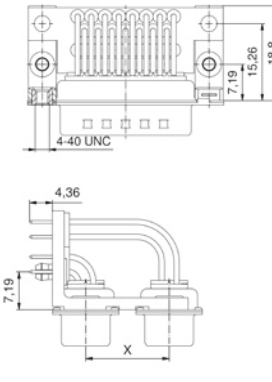
### 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A15239X
		15/15						163A15249X
		25/25						163A15259X
		37/37						163A15269X
		09/09					163A15559X	
		15/15					163A15569X	
		25/25					163A15579X	
		37/37					163A15589X	

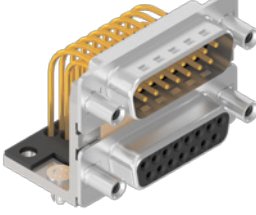
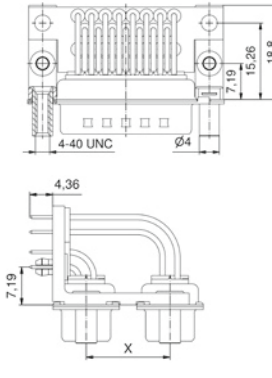
### 4-40 UNC front spacer

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A15399X
		15/15						163A15409X
		25/25						163A15419X
		37/37						163A15429X
		09/09					163A15719X	
		15/15					163A15729X	
		25/25					163A15739X	
		37/37					163A15749X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A20009X
		15/15						163A20019X
		25/25						163A20029X
		37/37						163A20039X
		09/09					163A19529X	
		15/15					163A19539X	
		25/25					163A19549X	
		37/37					163A19559X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

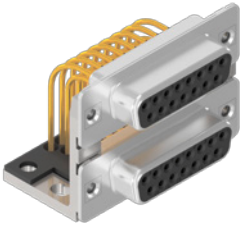
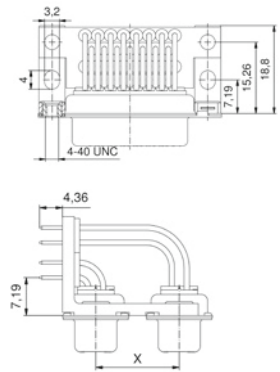
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	163A19369X
		15/15						163A19379X
		25/25						163A19389X
		37/37						163A19399X
		09/09					163A19689X	
		15/15					163A19699X	
		25/25					163A19709X	
		37/37					163A19719X	

## D-SUB CONNECTORS Dual Port

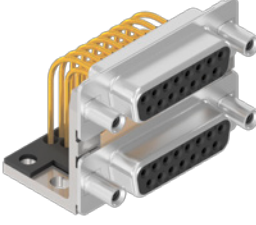
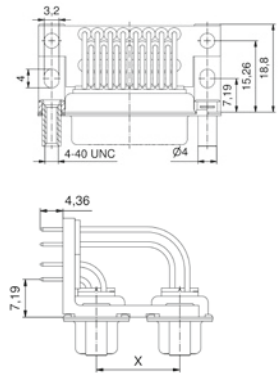
Socket upper - Socket bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

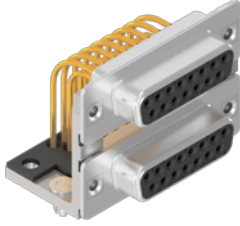
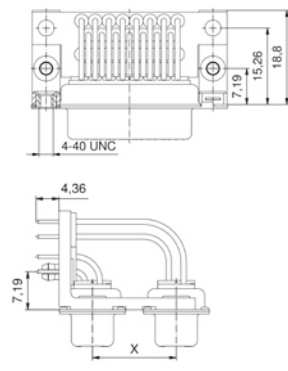
### 4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15609X
		15/15						164A15619X
		25/25						164A15629X
		37/37						164A15639X
		09/09					164A15929X	
		15/15					164A15939X	
		25/25					164A15949X	
		37/37					164A15959X	

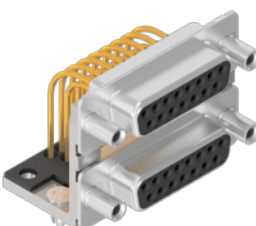
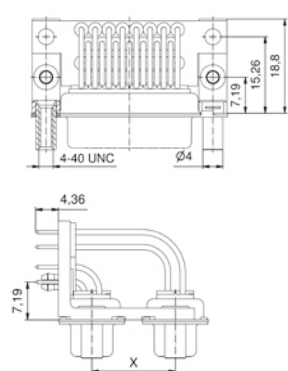
### 4-40 UNC front spacer

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15769X
		15/15						164A15779X
		25/25						164A15789X
		37/37						164A15799X
		09/09					164A16089X	
		15/15					164A16099X	
		25/25					164A16109X	
		37/37					164A16119X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A20409X
		15/15						164A20419X
		25/25						164A20429X
		37/37						164A20439X
		09/09					164A19919X	
		15/15					164A19929X	
		25/25					164A19939X	
		37/37					164A19949X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

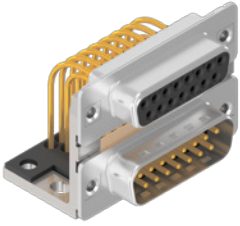
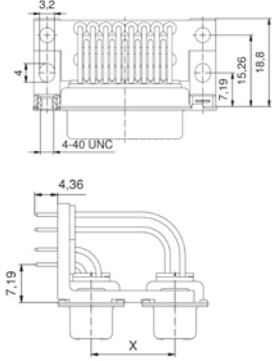
		09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A19759X
		15/15						164A19769X
		25/25						164A19779X
		37/37						164A19789X
		09/09					164A20079X	
		15/15					164A20089X	
		25/25					164A20099X	
		37/37					164A20109X	

## D-SUB CONNECTORS Dual Port

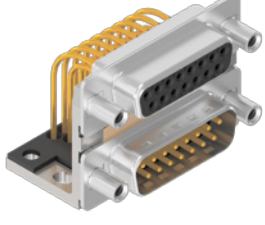
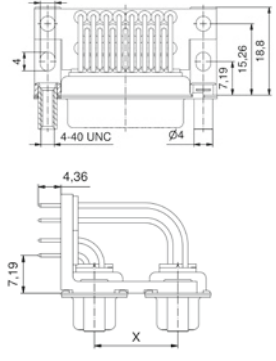
Socket upper - Plug bottom  
Solder pin, angled, precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

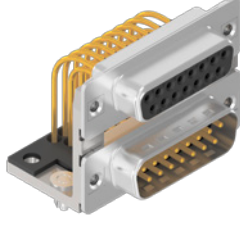
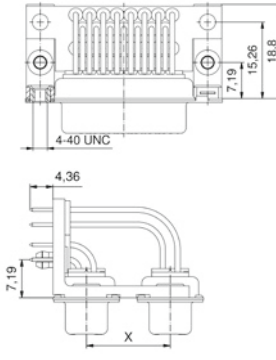
### 4-40 UNC threaded insert

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15649X
	15/15						164A15659X
	25/25						164A15669X
	37/37						164A15679X
	09/09					164A15969X	
	15/15					164A15979X	
	25/25					164A15989X	
	37/37					164A15999X	

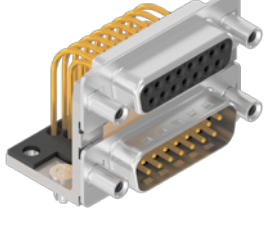
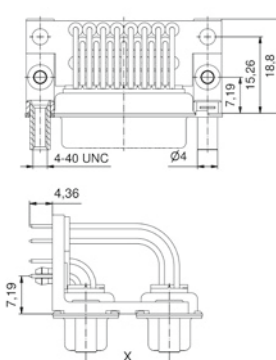
### 4-40 UNC front spacer

 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A15809X
	15/15						164A15819X
	25/25						164A15829X
	37/37						164A15839X
	09/09					164A16129X	
	15/15					164A16139X	
	25/25					164A16149X	
	37/37					164A16159X	

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A20449X
	15/15						164A20459X
	25/25						164A20469X
	37/37						164A20479X
	09/09					164A19959X	
	15/15					164A19969X	
	25/25					164A19979X	
	37/37					164A19989X	

### Clip for PCB 1.6 mm, 4-40 UNC front spacer

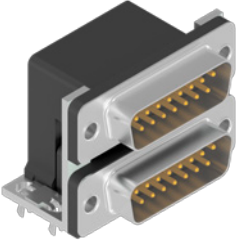
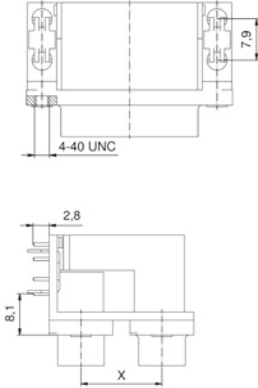
 	09/09	75 (UI) / 5 (CSA VDE)	125	E202784	3	.625 15.88	164A19799X
	15/15						164A19809X
	25/25						164A19819X
	37/37						164A20119X
	09/09					164A20129X	
	15/15					164A20139X	
	25/25					164A20149X	
	37/37					164A20149X	

## D-SUB CONNECTORS Dual Port

Plug upper - Plug bottom  
Solder pin, angled, stamped contacts

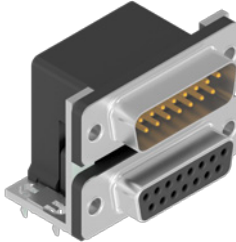
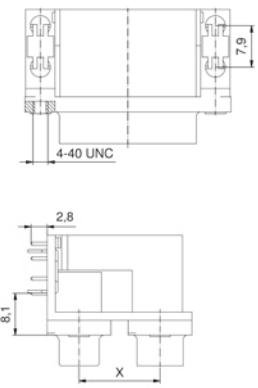
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.
		09/09	3	125		3	.625	DLS1PP5AN21X
		15/15					15.88	DLS2PP5AN21X
		25/25						DLS3PP5AN21X
		37/37						DLS4PP5AN21X
		09/09					.750	DLS1PP5AN23X
		15/15					19.05	DLS2PP5AN23X
		25/25						DLS3PP5AN23X
		37/37						DLS4PP5AN23X

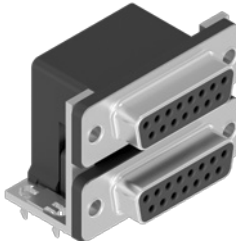
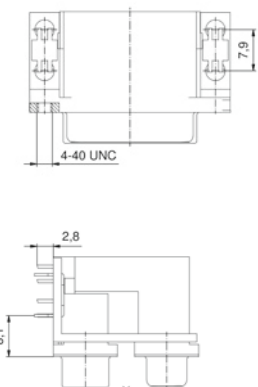
Plug upper - Socket bottom  
Solder pin, angled, stamped contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

		09/09	3	125		3	.625	DLS1PS5AN21X
		15/15					15.88	DLS2PS5AN21X
		25/25						DLS3PS5AN21X
		37/37						DLS4PS5AN21X
		09/09					.750	DLS1PS5AN23X
		15/15					19.05	DLS2PS5AN23X
		25/25						DLS3PS5AN23X
		37/37						DLS4PS5AN23X

Socket upper - Socket bottom  
Solder pin, angled, stamped contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

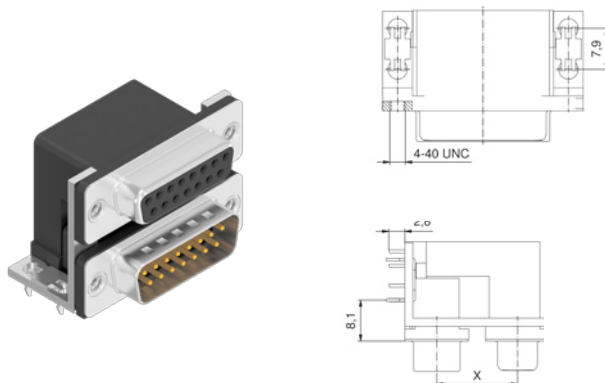
		09/09	3	125		3	.625	DLS1SS5AN21X
		15/15					15.88	DLS2SS5AN21X
		25/25						DLS3SS5AN21X
		37/37						DLS4SS5AN21X
		09/09					.750	DLS1SS5AN23X
		15/15					19.05	DLS2SS5AN23X
		25/25						DLS3SS5AN23X
		37/37						DLS4SS5AN23X



## D-SUB CONNECTORS Dual Port

Socket upper - Plug bottom  
Solder pin, angled, stamped contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

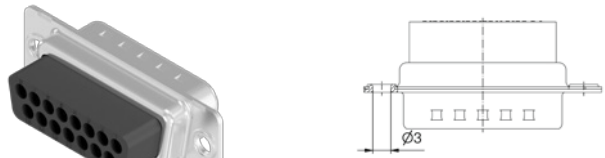
	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Connector spacing X = [inches, mm]	Part No.			
							Socket contact	Plug contact		
	09/09	3	125		3	.625 15.88		DLS1SP5AN21X		
	15/15							DLS2SP5AN21X		
	25/25							DLS3SP5AN21X		
	37/37							DLS4SP5AN21X		
	09/09							.750 19.05		DLS1SP5AN23X
	15/15						DLS2SP5AN23X			
	25/25						DLS3SP5AN23X			
	37/37						DLS4SP5AN23X			

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

## D-SUB CONNECTORS Standard

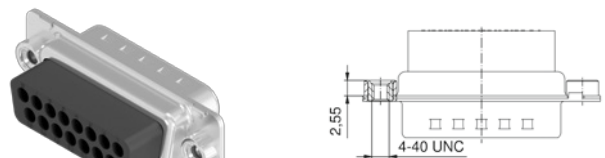
Crimp body (without contacts)  
For AWG 24-20 and AWG 28-24 crimp contacts

Through-hole  $\varnothing$  3 mm

	No. of poles	Working voltage [V]	UL-File	Part No.	
				Socket contact	Plug contact
	09	125	E202784	164X11769X	163X10019X
	15			164X11779X	163X10029X
	25			164X11789X	163X10039X
	37			164X11799X	163X10049X
	50			164X11809X	163X10059X

Shell: Steel tin plated  
On request:  
• Brass tin plated or stainless steel  
• M3 thread

4-40 UNC threaded insert

	No. of poles	Working voltage [V]	UL-File	Part No.	
				Socket contact	Plug contact
	09	125	E202784	DSS1XSXXG04X	DSS1XPXXG04X
	15			DSS2XSXXG04X	DSS2XPXXG04X
	25			DSS3XSXXG04X	DSS3XPXXG04X
	37			DSS4XSXXG04X	DSS4XPXXG04X
	50			DSS5XSXXG04X	DSS5XPXXG04X

## D-SUB CONNECTORS Standard


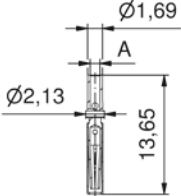
### Crimp-contacts, precision machined

Quality class 3 (A) = 50 mating cycles  
 Quality class 1 (C) = 500 mating cycles  
 On request:  
 • Female/Male contact quality class 1  
 (Closed entry version only in quality class 3)

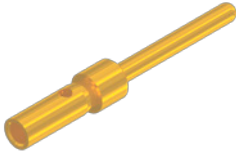
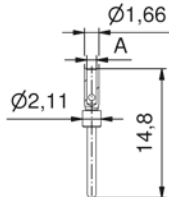
#### Female contact

Quantity [pcs]	AWG	Current rating [A]	Crimp inner $\varnothing$ A = [mm]	Quality class	Loose contacts	Part No.
500	24-20	7.5	1,12	3	✓	162A18709X
100						16-001653
500	28-24	5	0,64	3	✓	162A18719X
100						16-001663

#### Female contact closed entry

 	24-20	7.5	1,12	1	✓	132C15019X
	100					
	28-24	5	0,6			

#### Male contact

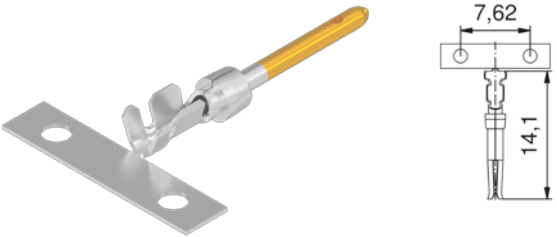
 	24-20	7.5	1,12	3	✓	161A18299X
	100					
500	28-24	5	0,64	3	✓	161A18309X
100						16-001683

## D-SUB CONNECTORS Standard

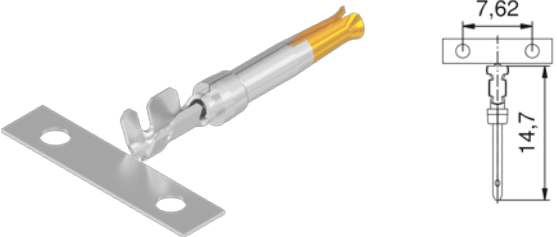
### Crimp-contacts, stamped

Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

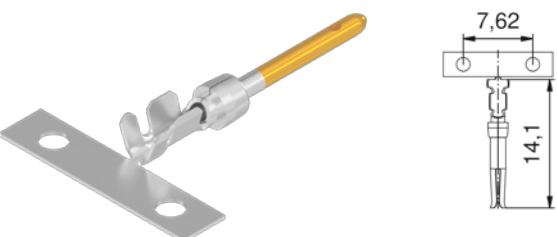
#### Female contact, AWG 24-20

	Quantity [pcs]	Current rating [A]	Loose contacts	Small reel wheeled left	Big reel wheeled left	Big reel wheeled right	Quality class	Part No.
	500		✓					162A11849X
		7.5		✓			3	162A11839X
	10000				✓			162A11819X
						✓		162A11829X

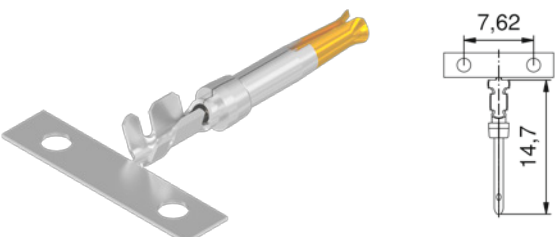
#### Male contact, AWG 24-20

	500		✓					161A13399X
		7.5		✓			3	161A13389X
	10000				✓			161A13369X
						✓		161A13379X

#### Female contact, AWG 28-24

	500		✓					162A11889X
		5		✓			3	162A11879X
	10000				✓			162A11859X
						✓		162A11869X

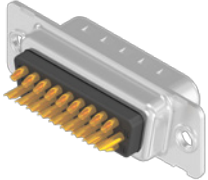
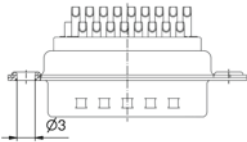
#### Male contact, AWG 28-24

	500		✓					161A13439X
		5		✓			3	161A13429X
	10000				✓			161A13409X
						✓		161A13419X

## D-SUB CONNECTORS High Density

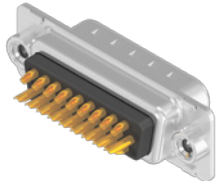
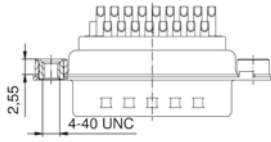
Solder cup  
Precision machined contacts, AWG 22

Through-hole  $\varnothing$  3 mm

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL VDE) / 2.5 (CSA)	60	E202784	3	164A17009X	163A16599X
	26					164A17019X	163A16609X
	44					164A17029X	163A16619X
	62					164A17039X	163A16629X
	78					164A17049X	163A16639X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

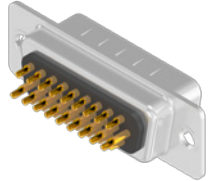
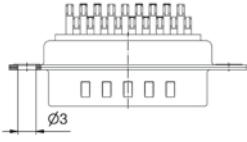
4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL VDE) / 2.5 (CSA)	60	E202784	3	164A17059X	163A16649X
	26					164A17069X	163A16659X
	44					164A17079X	163A16669X
	62					164A17089X	163A16679X
	78					164A17099X	163A16689X

## D-SUB CONNECTORS High Density

Solder cup  
Stamped contacts, AWG 22

Through-hole  $\varnothing$  3 mm

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3	60		3	302A10129X	301A10129X
	26					302A10139X	301A10139X
	44					302A10149X	301A10149X
	62					302A10159X	301A10159X
	78					302A11329X	301A11019X

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles




## D-SUB CONNECTORS High Density

Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

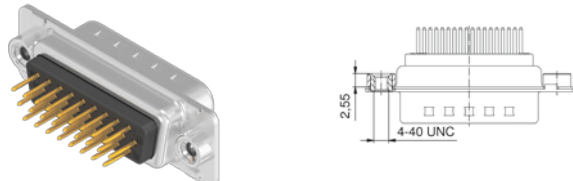
### Through-hole Ø 3 mm

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17159X	163A16749X
26					164A17169X	163A16759X
44					164A17179X	163A16769X
62					164A17189X	163A16779X
78					164A17199X	163A16789X



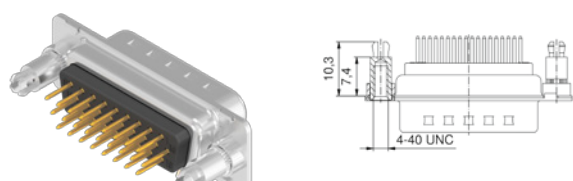
### 4-40 UNC threaded insert

15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17209X	163A16799X
26					164A17219X	163A16809X
44					164A17229X	163A16819X
62					164A17239X	163A16829X
78					164A17249X	163A16839X



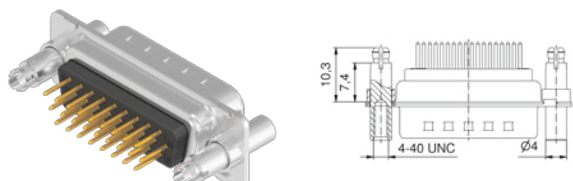
### 4-40 UNC threaded rear spacer clip for PCB 1.6 mm

15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17359X	163A16949X
26					164A17369X	163A16959X
44					164A17379X	163A16969X
62					164A17389X	163A16979X
78					164A17399X	163A16989X



### 4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A17459X	163A17049X
26					164A17469X	163A17059X
44					164A17479X	163A17069X
62					164A17489X	163A17079X
78					164A17499X	163A17089X

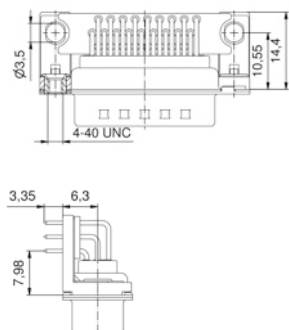
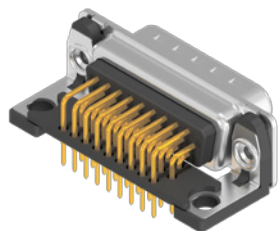


## D-SUB CONNECTORS High Density

Solder pin, angled, .350"/7.98 mm  
Precision machined contacts, plastic bracket

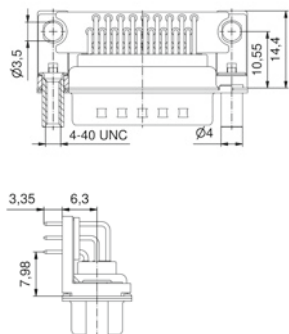
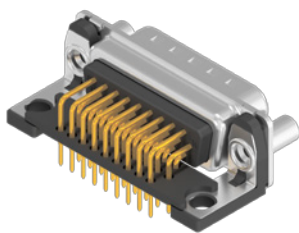
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### Grounding strap, 4-40 UNC threaded insert



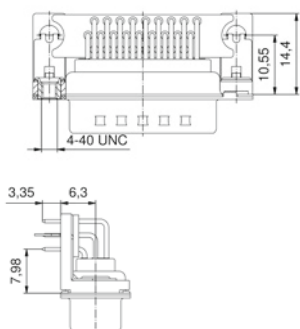
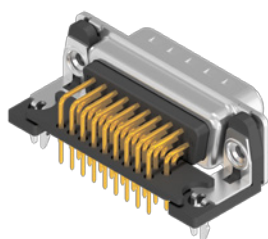
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18019X	163A17609X
26					164A18029X	163A17619X
44					164A18039X	163A17629X
62					164A18049X	163A17639X

### Grounding strap, 4-40 UNC front spacer



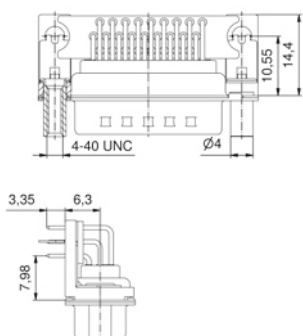
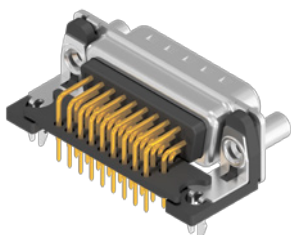
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18099X	163A17689X
26					164A18109X	163A17699X
44					164A18119X	163A17709X
62					164A18129X	163A17719X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A20929X	163A20489X
26					164A20939X	163A20499X
44					164A20949X	163A20509X
62					164A20959X	163A20519X

### Clip for PCB 1.6 mm, 4-40 UNC front spacer



15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A21009X	163A20569X
26					164A21019X	163A20579X
44					164A21029X	163A20589X
62					164A21039X	163A20599X

**D-SUB CONNECTORS**  
High Density

Solder pin, angled, .350" / 7.98 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18179X	163A17769X
26					164A18189X	163A17779X
44					164A18199X	163A17789X
62					164A18209X	163A17799X
78					164A18629X	163A18219X

Clip for PCB 1.6 mm, 4-40 UNC front spacer

15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A18259X	163A17849X
26					164A18269X	163A17859X
44					164A18279X	163A17869X
62					164A18289X	163A17879X
78					164A18649X	163A18239X

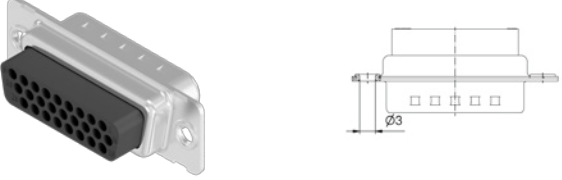
**D-SUB CONNECTORS**  
High Density




Solder pin, angled, .350" / 8.78 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, 4-40 UNC front spacer

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
15	3	60		3	302A10869X	301A10869X
26					302A10879X	301A10879X
44					302A10889X	301A10889X
62					302A10899X	301A10899X
78					302A11629X	301A11369X

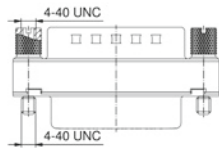
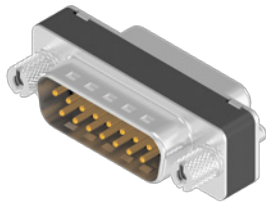
D-SUB CONNECTORS High Density		No. of poles	Working voltage [V]	UL-File	Shell: Steel tin plated On request: • Brass tin plated or stainless steel	
Crimp body (without contacts) For AWG 28-22 crimp contacts					Part No. Socket contact	Part No. Plug contact
Through-hole Ø 3 mm						
	15	60	E202784	164X11949X	163X10169X	
	26			164X11959X	163X10179X	
	44			164X11969X	163X10189X	
	62			164X11979X	163X10199X	
	78			164X11989X	163X10209X	

D-SUB CONNECTORS High Density		Quantity [pcs]	Current rating [A]	Loose contacts	Quality class	Quality class 3 (A) = 50 mating cycles On request: • Quality class 1 (C) = 500 mating cycles	
Crimp-contacts, precision machined						Part No.	
Female contact, AWG 28-22							
	500	3	✓	3	162A18419X		
Female contact closed entry, AWG 28-22							
	500	3	✓	3	16-000693		
Male contact, AWG 28-22							
	500	3	✓	3	161A18009X		

## D-SUB CONNECTORS Standard

Interface adapter, connector saver  
Plug connector - socket connector

4-40 UNC threaded lock



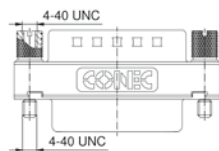
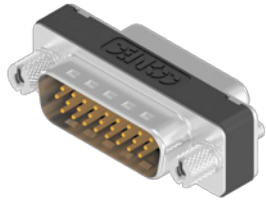
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
09	7.5 (UL) 5 (CSA) VDE	125	E202784	3	163A50009X
15					163A50019X
25					163A50029X
37					163A50039X
50					163A50049X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## D-SUB CONNECTORS High Density

Interface adapter, connector saver  
Plug connector - socket connector

4-40 UNC threaded lock



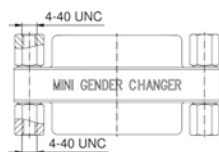
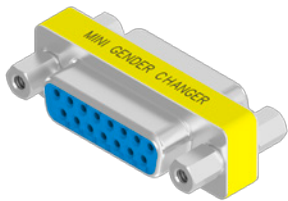
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	164A03399X
26					164A03919X
44					164A03929X
62					164A03939X
78					DAH5XAAAR04X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## D-SUB CONNECTORS Standard

Interface adapter, gender changer  
Socket connector - socket connector

4-40 UNC threaded lock

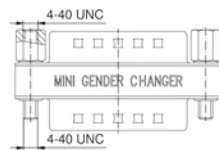


No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
09	3	125		3	320X12519X
15					320X12539X
25					320X10559X
37					320X12559X

Shell: Steel nickel plated  
Quality class 3 (A) = 50 mating cycles

Interface adapter, gender changer  
Plug connector - plug connector

4-40 UNC threaded lock



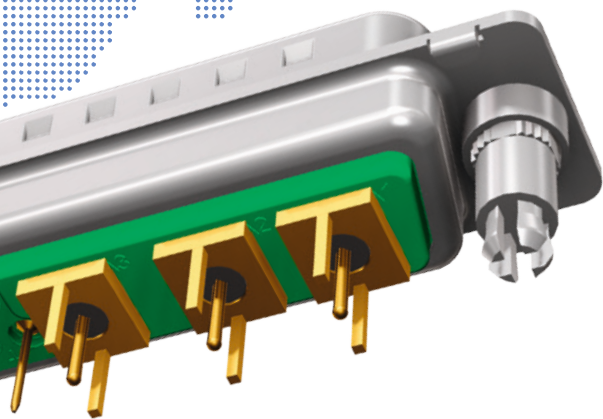
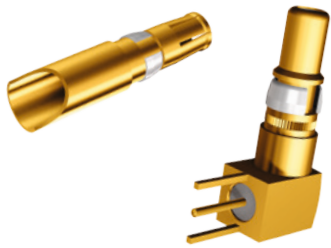
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No.
09	3	125		3	320X12509X
15					320X12529X
25					320X10549X
37					320X12549X



SECTION 2

# COMBINATION D-SUB CONNECTORS





## COMBINATION D-SUB CONNECTORS

### Part Number Creator Standard

**3 003W3 S X X 6 1 A 1 0 X**

#### Shell type

- 3 = Steel tin plated
  - 1 = Brass tin plated\*
  - A = Stainless steel\*
- \*on request

#### Shell size and design

- 1 = 5W1, 2W2C
  - 2 = 3W3, 7W2, 11W1, 3W3C
  - 3 = 5W5, 9W4, 13W3, 17W2, 21W1
  - 4 = 8W8, 13W6, 17W5, 21W4A, 25W3, 27W2
  - 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions add "0"= 003W3

#### Contact type

- P = Plug connector
- S = Socket connector

#### Surface/Quality class for SIGNAL contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application = > 500 mating cycles (on request)\*
- X = Crimp and 3W3, 5W5, 8W8, 2W2C, 3W3C (no contacts are supplied with the connector) \*on request

#### Termination only for SIGNAL contacts

- K = Crimp without contacts
- M = Solder cup
- N = Wire wrap, .500"/12.7 mm
- P = Press fit
- R = Solder pin, straight, .220"/5.6 mm
- T = Solder pin, angled, .280" (3.18)"/7.19 mm
- U = Solder pin, angled, .370"/9.40 mm
- X = 3W3, 5W5, 8W8, 2W2C, 3W3C

#### Termination for HIGH POWER- or COAXIAL contacts

##### Quality class 3/Quality class 1

- 61/41 = Solder cup 10 A
- 62/42 = Solder cup 20 A
- 63/43 = Solder cup 30 A
- 64/44 = Solder cup 40 A
- 68/48 = Solder pin, straight 20 A, D = .077"/1.95 mm
- 69/49 = Solder pin, straight 20 A, D = .102"/2.60 mm
- 70/50 = Solder pin, straight 20 A, D = .110"/2.85 mm
- 71/51 = Solder pin, straight 30 A, D = .130"/3.18 mm
- 72/52 = Solder pin, straight 40 A, D = .150"/3.75 mm
- 59/55 = Solder pin, angled 15 A
- 73/56 = Solder pin, angled 20 A
- 74/57 = Solder pin, angled 30 A
- 75/58 = Solder pin, angled 40 A
- 77/60 = Solder pin, angled 40 A
- 81/66 = Solder pin, angled 20 A

##### Quality class 3/Quality class 1

- 82/67 = Solder pin, angled 30 A
- 85/65 = Solder pin, angled 30 A
- G7/76 = 3 Solder pins Straight 50 Ω
- G8/86 = 3 Solder pins Straight 75 Ω
- G9/78 = 3 Solder pins angled 50 Ω
- H1/79 = 3 Solder pins angled 50 Ω
- H2/88 = 3 Solder pins angled 75 Ω
- H3/89 = 3 Solder pins angled 75 Ω
- H4/80 = 5 Solder pins angled 50 Ω
- H5/90 = 5 Solder pins angled 75 Ω
- 91 = Screw termination 20 A
  - /P1 = press fit 30 A
  - /P2 = press fit 30 A
  - /P4 = press fit 30 A
- 99 = no high power, coax or crimp contacts loaded

#### Mounting style

- A1 = Riveted
- A3 = 4-40 UNC threaded insert
- A5 = 4-40 UNC threaded rear spacer
- A8 = Threaded rear spacer for 4-40 UNC press fit
- C2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- G2 = Metal bracket, 4-40 UNC threaded insert for .370"/9.40 mm
- G4 = Metal bracket, 4-40 UNC threaded insert and clip for .370"/9.40 mm
- H2 = Metal bracket, 4-40 UNC threaded lock for .370"/9.40 mm
- H4 = Metal bracket, 4-40 UNC threaded lock and clip for .370"/9.40 mm
- N2 = Metal bracket, 4-40 UNC threaded insert for .280"/7.19 mm
- N4 = Metal bracket, 4-40 UNC threaded insert and clip for .280"/7.19 mm
- P2 = Metal bracket, 4-40 UNC threaded lock for .280"/7.19 mm
- P4 = Metal bracket, 4-40 UNC threaded lock and clip for .280"/7.19 mm
- W2 = Threaded rear spacer with 4-40 UNC press in pin

OX = Standard



## COMBINATION D-SUB CONNECTORS

### Part Number Creator High Density

**3 H19W1 S C M 4 1 A 1 O X**

#### Shell type

- 3 = Steel tin plated
- 1 = Brass tin plated\*
- A = Shell stainless steel\* \*on request

#### Shell size and design

- 2 = 19W1
- 3 = 15W4
- 4 = 45W2 H = High Density

#### Contact type

- P = Plug connector
- S = Socket connector

#### Quality class for SIGNAL contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles\*
- C = Quality class 1 = 500 mating cycles
- J = Special application = > 500 mating cycles\* \*on request

#### Termination only for SIGNAL contacts

- M = Solder cup
- P = Press-fit\*
- R = Solder pin, straight
- T = Solder pin, angled .350"/7.98 mm
- W = Solder pin, angled .450"/11.43 mm\* \*on request

#### Termination for HIGH POWER- or COAXIAL contacts

##### Quality class 3/Quality class 1

- 61/41 = Solder cup 10 A
- 62/42 = Solder cup 20 A
- 63/43 = Solder cup 30 A
- 64/44 = Solder cup 40 A
- 68/48 = Solder pin, straight 20 A, D = .077"/1.95 mm
- 69/49 = Solder pin, straight 20 A, D = .102"/2.60 mm
- 70/50 = Solder pin, straight 20 A, D = .110"/2.85 mm
- 71/51 = Solder pin, straight 30 A, D = .130"/3.18 mm
- 72/52 = Solder pin, straight 40 A, D = .150"/3.75 mm
- 59/55 = Solder pin, angled 15 A
- 73/56 = Solder pin, angled 20 A
- 74/57 = Solder pin, angled 30 A
- 75/58 = Solder pin, angled 40 A

##### Quality class 3/Quality class 1

- G7/76 = 3 Solder pins Straight 50 Ω
- G9/78 = 3 Solder pins angled 50 Ω
- H4/80 = 5 Solder pins angled 50 Ω
- G8/86 = 3 Solder pins Straight 75 Ω
- H2/88 = 3 Solder pins angled 75 Ω
- H5/90 = 5 Solder pins angled 75 Ω
- 91 = Screw termination 20 A

##### Quality class 1

- P1 = press fit 30 A
- P2 = press fit 30 A
- P4 = press fit 30 A
- 99 = no high power, coax or crimp contacts loaded

#### Mounting style

- A1 = Riveted
- A3 = 4-40 UNC threaded insert
- A5 = 4-40 UNC threaded rear spacer
- A8 = Threaded rear spacer for 4-40 UNC press fit
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F2 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F4 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F6 = 4-40 UNC clip and threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- G6 = Metal bracket, 4-40 UNC threaded insert for .350"/7.98 mm
- G8 = Metal bracket, 4-40 UNC threaded insert and Clip for .350"/7.98 mm
- H6 = Metal bracket, 4-40 UNC threaded lock for .350"/7.98 mm
- H8 = Metal bracket, 4-40 UNC threaded lock and Clip for .350"/7.98 mm
- W2 = Threaded rear spacer with 4-40 UNC press in pin

- OX = Standard

## COMBINATION D-SUB CONNECTORS

### Product specification Standard

Basic material	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Contact	Copper alloy			
Contact plating	Gold over nickel			
Insulator (Connector) green standard/ black crimp	PBT GF UL 94 V-0			
Insulator (Contacts)		PTFE/PBTP/PI		PTFE
Shell	Steel tin plated (on request brass tin plated or stainless steel)			
Retaining clip	Copper alloy			
Technical Data				
Test voltage	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	3.5 kV, 50 Hz, 1 min.
Working voltage	250 V AC/DC	250 V AC/DC	250 V AC/DC	max. 2.8 kV
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	2 A	10 - 40 A (UL)	1.5 A
Resistance between mated contacts	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥ 5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2 x 10 <sup>7</sup> MΩ
Characteristic impedance		50/75 Ω		
Frequency range		0-2 GHz		
VSWR-value according MIL-C-39012		≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1,5 @ 2.0 GHz		
Operating temperature	- 55 °C to + 125 °C			
Insertion force per contact	3.4 N	7 N	7 N	5 N
Extraction force per contact	0.2 N	7 N	approx. 5 N	approx. 2.5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.



## COMBINATION D-SUB CONNECTORS

### Product specification High Density

Basic material	Connector with signal contacts	Coaxial contacts	High power contacts	High voltage contacts
Contact	Copper alloy			
Contact plating	Gold over nickel			
Insulator (Connector) green standard/ black crimp	PBT GF UL 94 V-0			
Insulator (Contacts)		PTFE/PBTP/PI		PTFE
Shell	Steel tin plated (on request brass tin plated or stainless steel)			
Retaining clip		Copper alloy		
<b>Technical Data</b>				
Test voltage	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	3.5 kV, 50 Hz, 1 min.
Working voltage	60 V AC/DC	250 V AC/DC	250 V AC/DC	max. 2.8 kV
Current rating	3 A (UL, VDE) / 2.5 A (CSA)	2 A	10 - 40 A (UL)	1.5 A
Resistance between mated contacts	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ	max. 2.7 mΩ
Insulation resistance	≥ 5 GΩ	≥ 10 GΩ	≥ 5 GΩ	≥ 2 x 10 <sup>7</sup> MΩ
Characteristic impedance		50/75 Ω		
Frequency range		0-2 GHz		
VSWR-value according MIL-C-39012		≤ 1,2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz		
Operating temperature	- 55 °C to + 125 °C			
Insertion force per contact	3.4 N	7 N	7 N	5 N
Extraction force per contact	0.2 N	7 N	approx. 5 N	approx. 2.5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			

Technical specifications are subject to change without notice.

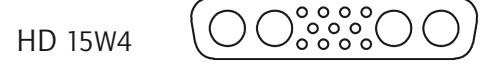
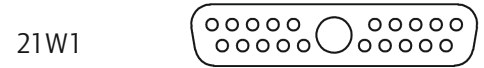
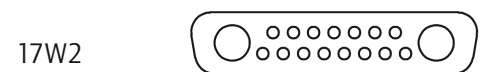
## COMBINATION D-SUB CONNECTORS

### Contact arrangements Mating side of socket connector

Shell size 1

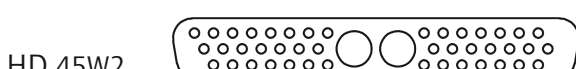
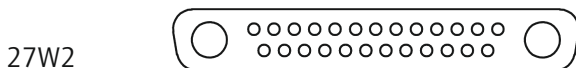
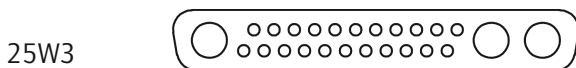
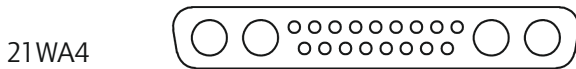
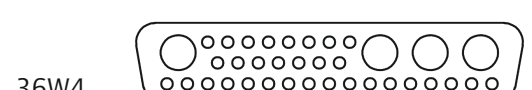
Shell size 2

Shell size 3



Shell size 4

Shell size 5

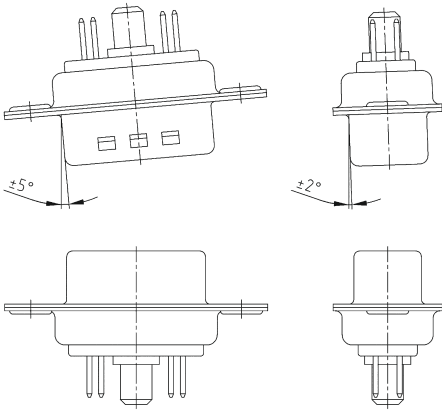


Connectors 3W3, 5W5 and 8W8 with female insulators: Socket contacts are fingerprobe safe according to UL 1950 and CSA 22.2.950.

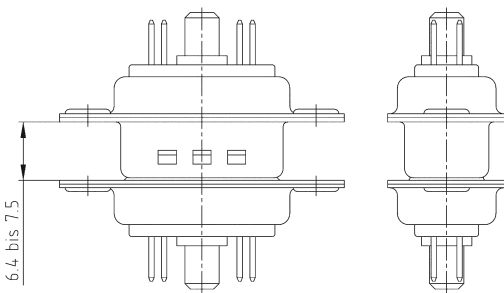
# COMBINATION D-SUB CONNECTORS

## Mating conditions

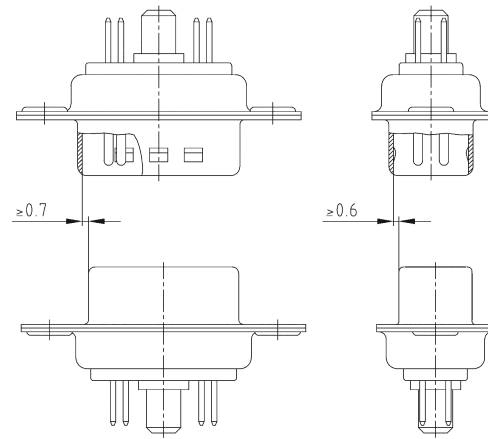
### Max. tilt angle for connector mating



### Range for safe contact

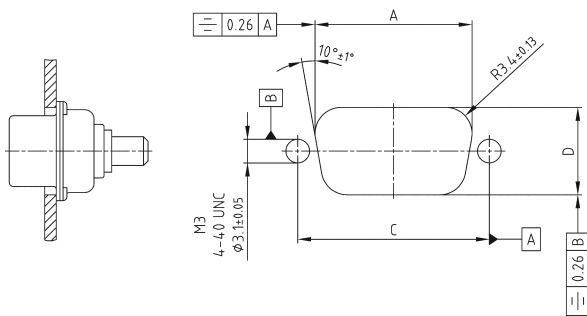


### Lock-in range

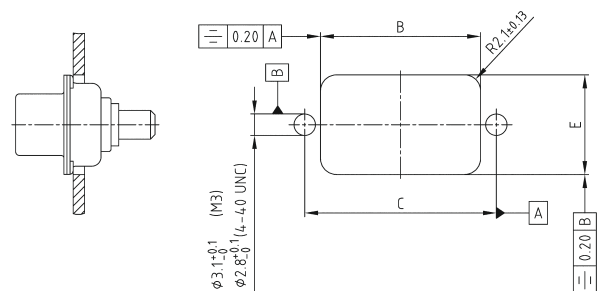


## Panel cut-out

### Back panel mounting



### Front panel mounting



Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

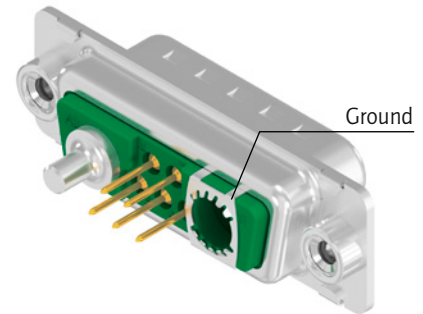
Technical specifications are subject to change without notice.

## COMBINATION D-SUB CONNECTORS

### Accessories

#### Grounding for coaxial contacts

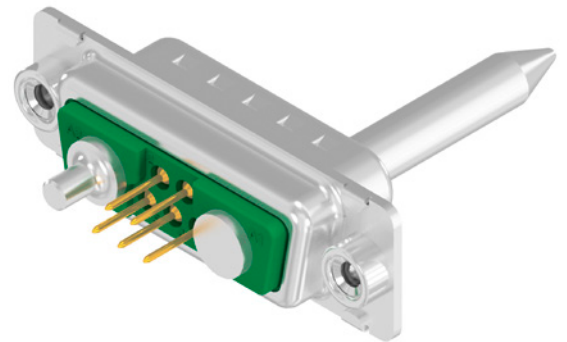
To optimize a perfect ground connection from the coaxial contact (outer conductor) to the metal shell. (Factory installed).



#### Guide post

For safe blind mating of male and female connectors under cramped conditions. The corresponding contact positions in the mating connector have to remain empty to allow these guide posts to be admitted when mating the connectors.

**Part Number**  
**Guide post**      160X11279X



#### Hole plug

The hole plugs can be mounted from the mating side of male and female connectors to close unused contact positions.

**Material:** PBT GF UL 94 V-0  
**Colour:** black

**Part Number**  
**Hole plug**      160X10939X




## COMBINATION D-SUB CONNECTORS With signal contacts

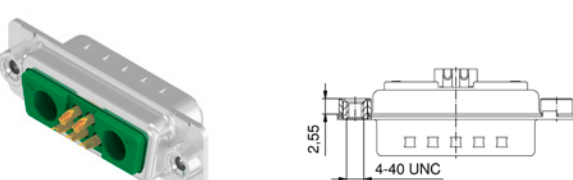
Solder cup  
Precision machined contacts, AWG 20

Through-hole  $\varnothing$  3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

	No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAM99A10X	3005W1PAM99A10X
	7W2					3007W2SAM99A10X	3007W2PAM99A10X
	9W4					3009W4SAM99A10X	3009W4PAM99A10X
	11W1					3011W1SAM99A10X	3011W1PAM99A10X
	13W3					3013W3SAM99A10X	3013W3PAM99A10X
	13W6					3013W6SAM99A10X	3013W6PAM99A10X
	17W2					3017W2SAM99A10X	3017W2PAM99A10X
	17W5					3017W5SAM99A10X	3017W5PAM99A10X
	21W1					3021W1SAM99A10X	3021W1PAM99A10X
	24W7					3024W7SAM99A10X	3024W7PAM99A10X
	25W3					3025W3SAM99A10X	3025W3PAM99A10X
	27W2					3027W2SAM99A10X	3027W2PAM99A10X
	36W4					3036W4SAM99A10X	3036W4PAM99A10X
	43W2					3043W2SAM99A10X	3043W2PAM99A10X
	47W1					3047W1SAM99A10X	3047W1PAM99A10X
	21WA4					321WA4SAM99A10X	321WA4PAM99A10X

4-40 UNC threaded insert

	No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAM99A30X	3005W1PAM99A30X
	7W2					3007W2SAM99A30X	3007W2PAM99A30X
	9W4					3009W4SAM99A30X	3009W4PAM99A30X
	11W1					3011W1SAM99A30X	3011W1PAM99A30X
	13W3					3013W3SAM99A30X	3013W3PAM99A30X
	13W6					3013W6SAM99A30X	3013W6PAM99A30X
	17W2					3017W2SAM99A30X	3017W2PAM99A30X
	17W5					3017W5SAM99A30X	3017W5PAM99A30X
	21W1					3021W1SAM99A30X	3021W1PAM99A30X
	24W7					3024W7SAM99A30X	3024W7PAM99A30X
	25W3					3025W3SAM99A30X	3025W3PAM99A30X
	27W2					3027W2SAM99A30X	3027W2PAM99A30X
	36W4					3036W4SAM99A30X	3036W4PAM99A30X
	43W2					3043W2SAM99A30X	3043W2PAM99A30X
	47W1					3047W1SAM99A30X	3047W1PAM99A30X
	21WA4					321WA4SAM99A30X	321WA4PAM99A30X



## COMBINATION D-SUB CONNECTORS

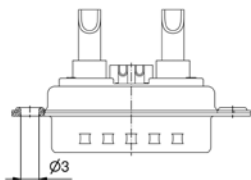
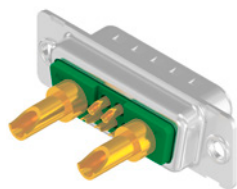
With signal contacts & high power contacts 20 A

Solder cup  
Precision machined contacts, AWG 20

Through-hole Ø 3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAM62A10X	3005W1PAM62A10X
7W2					3007W2SAM62A10X	3007W2PAM62A10X
9W4					3009W4SAM62A10X	3009W4PAM62A10X
11W1					3011W1SAM62A10X	3011W1PAM62A10X
13W3					3013W3SAM62A10X	3013W3PAM62A10X
13W6					3013W6SAM62A10X	3013W6PAM62A10X
17W2					3017W2SAM62A10X	3017W2PAM62A10X
17W5					3017W5SAM62A10X	3017W5PAM62A10X
21W1					3021W1SAM62A10X	3021W1PAM62A10X
24W7					3024W7SAM62A10X	3024W7PAM62A10X
25W3					3025W3SAM62A10X	3025W3PAM62A10X
27W2					3027W2SAM62A10X	3027W2PAM62A10X
36W4					3036W4SAM62A10X	3036W4PAM62A10X
43W2					3043W2SAM62A10X	3043W2PAM62A10X
47W1					3047W1SAM62A10X	3047W1PAM62A10X
21WA4					321WA4SAM62A10X	321WA4PAM62A10X

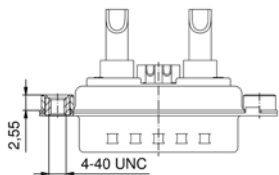
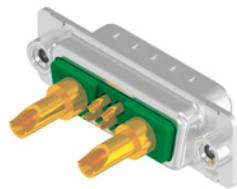


For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

4-40 UNC threaded insert

No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAM62A30X	3005W1PAM62A30X
7W2					3007W2SAM62A30X	3007W2PAM62A30X
9W4					3009W4SAM62A30X	3009W4PAM62A30X
11W1					3011W1SAM62A30X	3011W1PAM62A30X
13W3					3013W3SAM62A30X	3013W3PAM62A30X
13W6					3013W6SAM62A30X	3013W6PAM62A30X
17W2					3017W2SAM62A30X	3017W2PAM62A30X
17W5					3017W5SAM62A30X	3017W5PAM62A30X
21W1					3021W1SAM62A30X	3021W1PAM62A30X
24W7					3024W7SAM62A30X	3024W7PAM62A30X
25W3					3025W3SAM62A30X	3025W3PAM62A30X
27W2					3027W2SAM62A30X	3027W2PAM62A30X
36W4					3036W4SAM62A30X	3036W4PAM62A30X
43W2					3043W2SAM62A30X	3043W2PAM62A30X
47W1					3047W1SAM62A30X	3047W1PAM62A30X
21WA4					321WA4SAM62A30X	321WA4PAM62A30X



For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

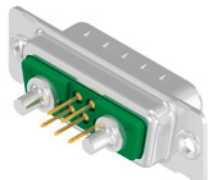
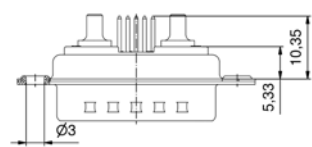
## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

Through-hole  $\varnothing$  3 mm

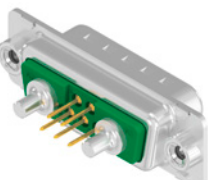
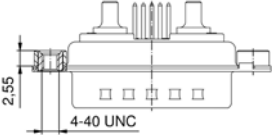
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole $\varnothing$ 3 mm			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR69A10X	3005W1PAR69A10X		
	7W2					3007W2SAR69A10X	3007W2PAR69A10X		
	9W4					3009W4SAR69A10X	3009W4PAR69A10X		
	11W1					3011W1SAR69A10X	3011W1PAR69A10X		
	13W3					3013W3SAR69A10X	3013W3PAR69A10X		
	13W6					3013W6SAR69A10X	3013W6PAR69A10X		
	17W2					3017W2SAR69A10X	3017W2PAR69A10X		
	17W5					3017W5SAR69A10X	3017W5PAR69A10X		
	21W1					3021W1SAR69A10X	3021W1PAR69A10X		
	24W7					3024W7SAR69A10X	3024W7PAR69A10X		
	25W3					3025W3SAR69A10X	3025W3PAR69A10X		
	27W2					3027W2SAR69A10X	3027W2PAR69A10X		
	36W4					3036W4SAR69A10X	3036W4PAR69A10X		
	43W2					3043W2SAR69A10X	3043W2PAR69A10X		
	47W1					3047W1SAR69A10X	3047W1PAR69A10X		
	21WA4					321WA4SAR69A10X	321WA4PAR69A10X		

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

4-40 UNC threaded insert

4-40 UNC threaded insert			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR69A30X	3005W1PAR69A30X		
	7W2					3007W2SAR69A30X	3007W2PAR69A30X		
	9W4					3009W4SAR69A30X	3009W4PAR69A30X		
	11W1					3011W1SAR69A30X	3011W1PAR69A30X		
	13W3					3013W3SAR69A30X	3013W3PAR69A30X		
	13W6					3013W6SAR69A30X	3013W6PAR69A30X		
	17W2					3017W2SAR69A30X	3017W2PAR69A30X		
	17W5					3017W5SAR69A30X	3017W5PAR69A30X		
	21W1					3021W1SAR69A30X	3021W1PAR69A30X		
	24W7					3024W7SAR69A30X	3024W7PAR69A30X		
	25W3					3025W3SAR69A30X	3025W3PAR69A30X		
	27W2					3027W2SAR69A30X	3027W2PAR69A30X		
	36W4					3036W4SAR69A30X	3036W4PAR69A30X		
	43W2					3043W2SAR69A30X	3043W2PAR69A30X		
	47W1					3047W1SAR69A30X	3047W1PAR69A30X		
	21WA4					321WA4SAR69A30X	321WA4PAR69A30X		

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

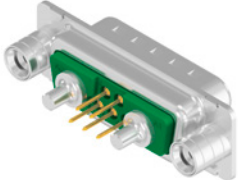
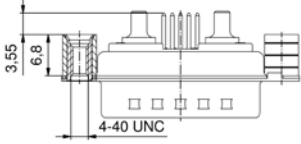
## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 			5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69A50X	3005W1PAR69A50X
			7W2					3007W2SAR69A50X	3007W2PAR69A50X
			9W4					3009W4SAR69A50X	3009W4PAR69A50X
			11W1					3011W1SAR69A50X	3011W1PAR69A50X
			13W3					3013W3SAR69A50X	3013W3PAR69A50X
			13W6					3013W6SAR69A50X	3013W6PAR69A50X
			17W2					3017W2SAR69A50X	3017W2PAR69A50X
			17W5					3017W5SAR69A50X	3017W5PAR69A50X
			21W1					3021W1SAR69A50X	3021W1PAR69A50X
			24W7					3024W7SAR69A50X	3024W7PAR69A50X
			25W3					3025W3SAR69A50X	3025W3PAR69A50X
			27W2					3027W2SAR69A50X	3027W2PAR69A50X
			36W4					3036W4SAR69A50X	3036W4PAR69A50X
			43W2					3043W2SAR69A50X	3043W2PAR69A50X
			47W1					3047W1SAR69A50X	3047W1PAR69A50X
			21WA4					321WA4SAR69A50X	321WA4PAR69A50X

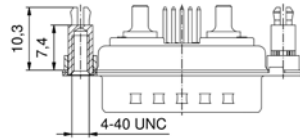
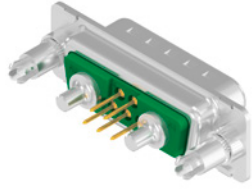
  

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm



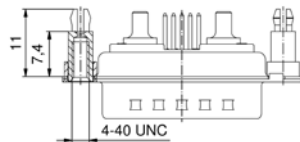
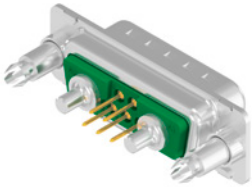
For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69E20X	3005W1PAR69E20X
7W2					3007W2SAR69E20X	3007W2PAR69E20X
9W4					3009W4SAR69E20X	3009W4PAR69E20X
11W1					3011W1SAR69E20X	3011W1PAR69E20X
13W3					3013W3SAR69E20X	3013W3PAR69E20X
13W6					3013W6SAR69E20X	3013W6PAR69E20X
17W2					3017W2SAR69E20X	3017W2PAR69E20X
17W5					3017W5SAR69E20X	3017W5PAR69E20X
21W1					3021W1SAR69E20X	3021W1PAR69E20X
24W7					3024W7SAR69E20X	3024W7PAR69E20X
25W3					3025W3SAR69E20X	3025W3PAR69E20X
27W2					3027W2SAR69E20X	3027W2PAR69E20X
36W4					3036W4SAR69E20X	3036W4PAR69E20X
43W2					3043W2SAR69E20X	3043W2PAR69E20X
47W1					3047W1SAR69E20X	3047W1PAR69E20X
21WA4					321WA4SAR69E20X	321WA4PAR69E20X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 2.3 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2.60
71	30 A	3.18
72	40 A	3.75

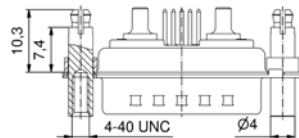
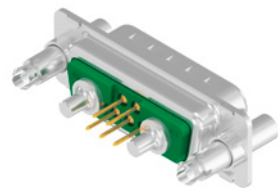
No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69E40X	3005W1PAR69E40X
7W2					3007W2SAR69E40X	3007W2PAR69E40X
9W4					3009W4SAR69E40X	3009W4PAR69E40X
11W1					3011W1SAR69E40X	3011W1PAR69E40X
13W3					3013W3SAR69E40X	3013W3PAR69E40X
13W6					3013W6SAR69E40X	3013W6PAR69E40X
17W2					3017W2SAR69E40X	3017W2PAR69E40X
17W5					3017W5SAR69E40X	3017W5PAR69E40X
21W1					3021W1SAR69E40X	3021W1PAR69E40X
24W7					3024W7SAR69E40X	3024W7PAR69E40X
25W3					3025W3SAR69E40X	3025W3PAR69E40X
27W2					3027W2SAR69E40X	3027W2PAR69E40X
36W4					3036W4SAR69E40X	3036W4PAR69E40X
43W2					3043W2SAR69E40X	3043W2PAR69E40X
47W1					3047W1SAR69E40X	3047W1PAR69E40X
21WA4					321WA4SAR69E40X	321WA4PAR69E40X

## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



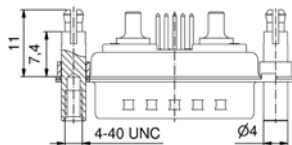
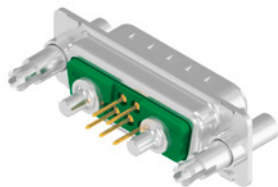
For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69F20X	3005W1PAR69F20X
7W2					3007W2SAR69F20X	3007W2PAR69F20X
9W4					3009W4SAR69F20X	3009W4PAR69F20X
11W1					3011W1SAR69F20X	3011W1PAR69F20X
13W3					3013W3SAR69F20X	3013W3PAR69F20X
13W6					3013W6SAR69F20X	3013W6PAR69F20X
17W2					3017W2SAR69F20X	3017W2PAR69F20X
17W5					3017W5SAR69F20X	3017W5PAR69F20X
21W1					3021W1SAR69F20X	3021W1PAR69F20X
24W7					3024W7SAR69F20X	3024W7PAR69F20X
25W3					3025W3SAR69F20X	3025W3PAR69F20X
27W2					3027W2SAR69F20X	3027W2PAR69F20X
36W4					3036W4SAR69F20X	3036W4PAR69F20X
43W2					3043W2SAR69F20X	3043W2PAR69F20X
47W1					3047W1SAR69F20X	3047W1PAR69F20X
21WA4					321WA4SAR69F20X	321WA4PAR69F20X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2.60
71	30 A	3.18
72	40 A	3.75

No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR69F40X	3005W1PAR69F40X
7W2					3007W2SAR69F40X	3007W2PAR69F40X
9W4					3009W4SAR69F40X	3009W4PAR69F40X
11W1					3011W1SAR69F40X	3011W1PAR69F40X
13W3					3013W3SAR69F40X	3013W3PAR69F40X
13W6					3013W6SAR69F40X	3013W6PAR69F40X
17W2					3017W2SAR69F40X	3017W2PAR69F40X
17W5					3017W5SAR69F40X	3017W5PAR69F40X
21W1					3021W1SAR69F40X	3021W1PAR69F40X
24W7					3024W7SAR69F40X	3024W7PAR69F40X
25W3					3025W3SAR69F40X	3025W3PAR69F40X
27W2					3027W2SAR69F40X	3027W2PAR69F40X
36W4					3036W4SAR69F40X	3036W4PAR69F40X
43W2					3043W2SAR69F40X	3043W2PAR69F40X
47W1					3047W1SAR69F40X	3047W1PAR69F40X
21WA4					321WA4SAR69F40X	321WA4PAR69F40X

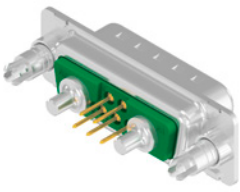
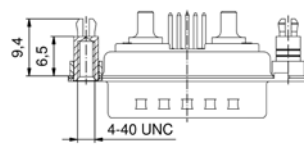


**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, straight, precision machined contacts  
Threaded rear spacer .256"/6.5 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

 			No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
				75 (UL) / 5 (CSA, VDE)	250	E228329	3		
	5W1						3005W1SAR69C20X	3005W1PAR69C20X	
	7W2						3007W2SAR69C20X	3007W2PAR69C20X	
	9W4						3009W4SAR69C20X	3009W4PAR69C20X	
	11W1						3011W1SAR69C20X	3011W1PAR69C20X	
	13W3						3013W3SAR69C20X	3013W3PAR69C20X	
	13W6						3013W6SAR69C20X	3013W6PAR69C20X	
	17W2						3017W2SAR69C20X	3017W2PAR69C20X	
	17W5						3017W5SAR69C20X	3017W5PAR69C20X	
	21W1						3021W1SAR69C20X	3021W1PAR69C20X	
	24W7						3024W7SAR69C20X	3024W7PAR69C20X	
	25W3						3025W3SAR69C20X	3025W3PAR69C20X	
	27W2						3027W2SAR69C20X	3027W2PAR69C20X	
	36W4						3036W4SAR69C20X	3036W4PAR69C20X	
	43W2						3043W2SAR69C20X	3043W2PAR69C20X	
	47W1						3047W1SAR69C20X	3047W1PAR69C20X	
	21WA4						321WA4SAR69C20X	321WA4PAR69C20X	

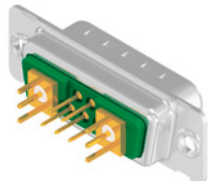
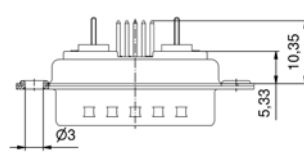
For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

Through-hole Ø 3 mm

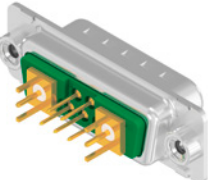
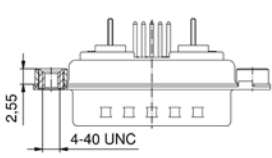
Through-hole Ø 3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76A10X	3005W1PAR76A10X	
	7W2					3007W2SAR76A10X	3007W2PAR76A10X	
	9W4					3009W4SAR76A10X	3009W4PAR76A10X	
	11W1					3011W1SAR76A10X	3011W1PAR76A10X	
	13W3					3013W3SAR76A10X	3013W3PAR76A10X	
	13W6					3013W6SAR76A10X	3013W6PAR76A10X	
	17W2					3017W2SAR76A10X	3017W2PAR76A10X	
	17W5					3017W5SAR76A10X	3017W5PAR76A10X	
	21W1					3021W1SAR76A10X	3021W1PAR76A10X	
	24W7					3024W7SAR76A10X	3024W7PAR76A10X	
	25W3					3025W3SAR76A10X	3025W3PAR76A10X	
	27W2					3027W2SAR76A10X	3027W2PAR76A10X	
	36W4					3036W4SAR76A10X	3036W4PAR76A10X	
	43W2					3043W2SAR76A10X	3043W2PAR76A10X	
	47W1					3047W1SAR76A10X	3047W1PAR76A10X	
	21WA4					321WA4SAR76A10X	321WA4PAR76A10X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76A30X	3005W1PAR76A30X	
	7W2					3007W2SAR76A30X	3007W2PAR76A30X	
	9W4					3009W4SAR76A30X	3009W4PAR76A30X	
	11W1					3011W1SAR76A30X	3011W1PAR76A30X	
	13W3					3013W3SAR76A30X	3013W3PAR76A30X	
	13W6					3013W6SAR76A30X	3013W6PAR76A30X	
	17W2					3017W2SAR76A30X	3017W2PAR76A30X	
	17W5					3017W5SAR76A30X	3017W5PAR76A30X	
	21W1					3021W1SAR76A30X	3021W1PAR76A30X	
	24W7					3024W7SAR76A30X	3024W7PAR76A30X	
	25W3					3025W3SAR76A30X	3025W3PAR76A30X	
	27W2					3027W2SAR76A30X	3027W2PAR76A30X	
	36W4					3036W4SAR76A30X	3036W4PAR76A30X	
	43W2					3043W2SAR76A30X	3043W2PAR76A30X	
	47W1					3047W1SAR76A30X	3047W1PAR76A30X	
	21WA4					321WA4SAR76A30X	321WA4PAR76A30X	

For other coaxial contacts select code from spread sheet

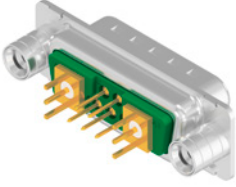
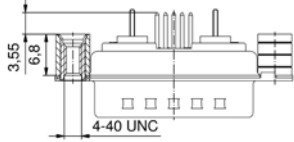
Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

 		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
		5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76A50X	3005W1PAR76A50X
		7W2					3007W2SAR76A50X	3007W2PAR76A50X
		9W4					3009W4SAR76A50X	3009W4PAR76A50X
		11W1					3011W1SAR76A50X	3011W1PAR76A50X
		13W3					3013W3SAR76A50X	3013W3PAR76A50X
		13W6					3013W6SAR76A50X	3013W6PAR76A50X
		17W2					3017W2SAR76A50X	3017W2PAR76A50X
		17W5					3017W5SAR76A50X	3017W5PAR76A50X
		21W1					3021W1SAR76A50X	3021W1PAR76A50X
		24W7					3024W7SAR76A50X	3024W7PAR76A50X
		25W3					3025W3SAR76A50X	3025W3PAR76A50X
		27W2					3027W2SAR76A50X	3027W2PAR76A50X
		36W4					3036W4SAR76A50X	3036W4PAR76A50X
		43W2					3043W2SAR76A50X	3043W2PAR76A50X
		47W1					3047W1SAR76A50X	3047W1PAR76A50X
		21WA4					321WA4SAR76A50X	321WA4PAR76A50X

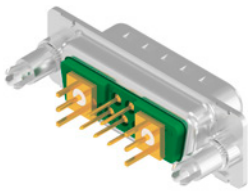
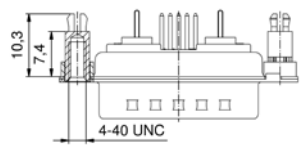
  

For other coaxial contacts select code from spread sheet	
Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

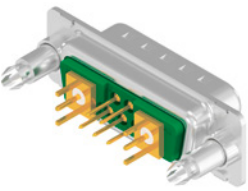
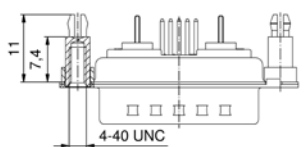
4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76E20X	3005W1PAR76E20X	
	7W2					3007W2SAR76E20X	3007W2PAR76E20X	
	9W4					3009W4SAR76E20X	3009W4PAR76E20X	
	11W1					3011W1SAR76E20X	3011W1PAR76E20X	
	13W3					3013W3SAR76E20X	3013W3PAR76E20X	
	13W6					3013W6SAR76E20X	3013W6PAR76E20X	
	17W2					3017W2SAR76E20X	3017W2PAR76E20X	
	17W5					3017W5SAR76E20X	3017W5PAR76E20X	
	21W1					3021W1SAR76E20X	3021W1PAR76E20X	
	24W7					3024W7SAR76E20X	3024W7PAR76E20X	
	25W3					3025W3SAR76E20X	3025W3PAR76E20X	
	27W2					3027W2SAR76E20X	3027W2PAR76E20X	
	36W4					3036W4SAR76E20X	3036W4PAR76E20X	
	43W2					3043W2SAR76E20X	3043W2PAR76E20X	
	47W1					3047W1SAR76E20X	3047W1PAR76E20X	
	21WA4					321WA4SAR76E20X	321WA4PAR76E20X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

4-40 UNC threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76E40X	3005W1PAR76E40X	
	7W2					3007W2SAR76E40X	3007W2PAR76E40X	
	9W4					3009W4SAR76E40X	3009W4PAR76E40X	
	11W1					3011W1SAR76E40X	3011W1PAR76E40X	
	13W3					3013W3SAR76E40X	3013W3PAR76E40X	
	13W6					3013W6SAR76E40X	3013W6PAR76E40X	
	17W2					3017W2SAR76E40X	3017W2PAR76E40X	
	17W5					3017W5SAR76E40X	3017W5PAR76E40X	
	21W1					3021W1SAR76E40X	3021W1PAR76E40X	
	24W7					3024W7SAR76E40X	3024W7PAR76E40X	
	25W3					3025W3SAR76E40X	3025W3PAR76E40X	
	27W2					3027W2SAR76E40X	3027W2PAR76E40X	
	36W4					3036W4SAR76E40X	3036W4PAR76E40X	
	43W2					3043W2SAR76E40X	3043W2PAR76E40X	
	47W1					3047W1SAR76E40X	3047W1PAR76E40X	
	21WA4					321WA4SAR76E40X	321WA4PAR76E40X	

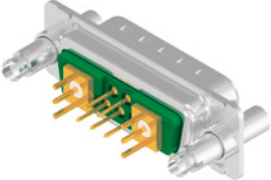
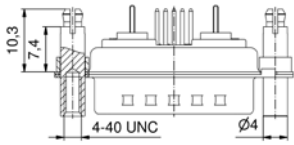
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, straight, precision machined contacts  
Threaded rear spacer .291"/7.4 mm

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

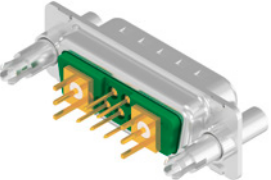
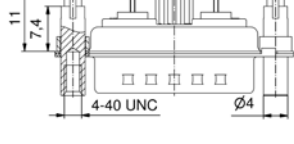
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR76F20X	3005W1PAR76F20X
		7W2					3007W2SAR76F20X	3007W2PAR76F20X
		9W4					3009W4SAR76F20X	3009W4PAR76F20X
		11W1					3011W1SAR76F20X	3011W1PAR76F20X
		13W3					3013W3SAR76F20X	3013W3PAR76F20X
		13W6					3013W6SAR76F20X	3013W6PAR76F20X
		17W2					3017W2SAR76F20X	3017W2PAR76F20X
		17W5					3017W5SAR76F20X	3017W5PAR76F20X
		21W1					3021W1SAR76F20X	3021W1PAR76F20X
		24W7					3024W7SAR76F20X	3024W7PAR76F20X
		25W3					3025W3SAR76F20X	3025W3PAR76F20X
		27W2					3027W2SAR76F20X	3027W2PAR76F20X
		36W4					3036W4SAR76F20X	3036W4PAR76F20X
		43W2					3043W2SAR76F20X	3043W2PAR76F20X
		47W1					3047W1SAR76F20X	3047W1PAR76F20X
		21WA4					321WA4SAR76F20X	321WA4PAR76F20X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		5W1	75 (UL) / 5 (CSA VDE)	250	E228329	3	3005W1SAR76F40X	3005W1PAR76F40X
		7W2					3007W2SAR76F40X	3007W2PAR76F40X
		9W4					3009W4SAR76F40X	3009W4PAR76F40X
		11W1					3011W1SAR76F40X	3011W1PAR76F40X
		13W3					3013W3SAR76F40X	3013W3PAR76F40X
		13W6					3013W6SAR76F40X	3013W6PAR76F40X
		17W2					3017W2SAR76F40X	3017W2PAR76F40X
		17W5					3017W5SAR76F40X	3017W5PAR76F40X
		21W1					3021W1SAR76F40X	3021W1PAR76F40X
		24W7					3024W7SAR76F40X	3024W7PAR76F40X
		25W3					3025W3SAR76F40X	3025W3PAR76F40X
		27W2					3027W2SAR76F40X	3027W2PAR76F40X
		36W4					3036W4SAR76F40X	3036W4PAR76F40X
		43W2					3043W2SAR76F40X	3043W2PAR76F40X
		47W1					3047W1SAR76F40X	3047W1PAR76F40X
		21WA4					321WA4SAR76F40X	321WA4PAR76F40X

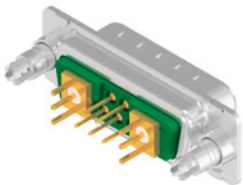
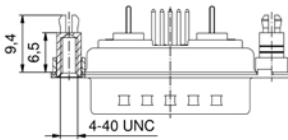
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

## COMBINATION D-SUB CONNECTORS With signal contacts & coaxial contacts 50 Ω

Solder pin, straight, precision machined contacts  
Threaded rear spacer .256"/6.5 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAR76C20X	3005W1PAR76C20X	
	7W2					3007W2SAR76C20X	3007W2PAR76C20X	
	9W4					3009W4SAR76C20X	3009W4PAR76C20X	
	11W1					3011W1SAR76C20X	3011W1PAR76C20X	
	13W3					3013W3SAR76C20X	3013W3PAR76C20X	
	13W6					3013W6SAR76C20X	3013W6PAR76C20X	
	17W2					3017W2SAR76C20X	3017W2PAR76C20X	
	17W5					3017W5SAR76C20X	3017W5PAR76C20X	
	21W1					3021W1SAR76C20X	3021W1PAR76C20X	
	24W7					3024W7SAR76C20X	3024W7PAR76C20X	
	25W3					3025W3SAR76C20X	3025W3PAR76C20X	
	27W2					3027W2SAR76C20X	3027W2PAR76C20X	
	36W4					3036W4SAR76C20X	3036W4PAR76C20X	
	43W2					3043W2SAR76C20X	3043W2PAR76C20X	
	47W1					3047W1SAR76C20X	3047W1PAR76C20X	
	21WA4					321WA4SAR76C20X	321WA4PAR76C20X	

For other coaxial contacts select code from spread sheet

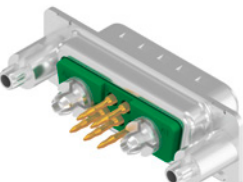
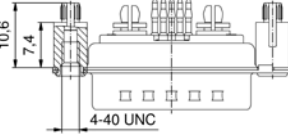
Code	Impedance
76	50 Ω
86	75 Ω

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS With signal contacts & high power contacts 30 A

Press-fit, straight  
Precision machined contacts

4-40 UNC rear press-fit spacer

4-40 UNC rear press-fit spacer		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAPP1W20X	3005W1PAPP1W20X	
	7W2					3007W2SAPP1W20X	3007W2PAPP1W20X	
	9W4					3009W4SAPP1W20X	3009W4PAPP1W20X	
	11W1					3011W1SAPP1W20X	3011W1PAPP1W20X	
	13W3					3013W3SAPP1W20X	3013W3PAPP1W20X	
	13W6					3013W6SAPP1W20X	3013W6PAPP1W20X	
	17W2					3017W2SAPP1W20X	3017W2PAPP1W20X	
	17W5					3017W5SAPP1W20X	3017W5PAPP1W20X	
	21W1					3021W1SAPP1W20X	3021W1PAPP1W20X	
	24W7					3024W7SAPP1W20X	3024W7PAPP1W20X	
	25W3					3025W3SAPP1W20X	3025W3PAPP1W20X	
	27W2					3027W2SAPP1W20X	3027W2PAPP1W20X	
	36W4					3036W4SAPP1W20X	3036W4PAPP1W20X	
	43W2					3043W2SAPP1W20X	3043W2PAPP1W20X	
	47W1					3047W1SAPP1W20X	3047W1PAPP1W20X	
	21WA4					321WA4SAPP1W20X	321WA4PAPP1W20X	

For other Power contacts select code from spread sheet

Code	Current rating	Hole diameter PCB
P1	30 A	3.11
P2	30 A	3.25
P4	30 A	3.20

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

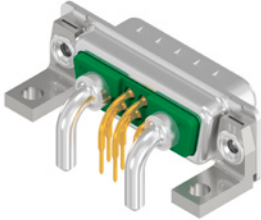
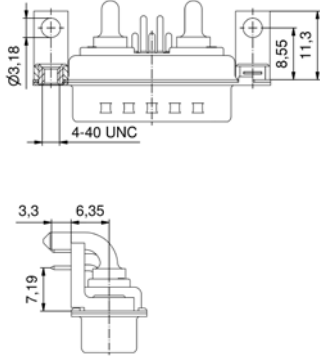


## COMBINATION D-SUB CONNECTORS

With signal contacts & high power contacts 20 A

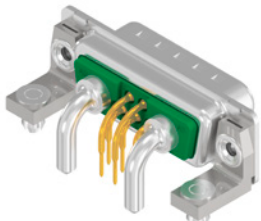
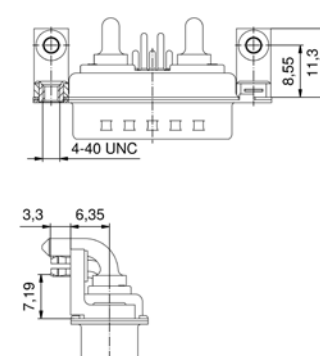
Solder pin, angled, 3.18"/7.19 mm  
Precision machined contacts, metal bracket

### 4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact																																							
  <table border="1" data-bbox="103 795 598 1041"> <thead> <tr> <th colspan="4">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>59</td><td>1-4</td><td>15 A</td><td>1.90</td></tr> <tr><td>73</td><td>1-4</td><td>20 A</td><td>2.85</td></tr> <tr><td>74</td><td>1-4</td><td>30 A</td><td>3.20</td></tr> <tr><td>75</td><td>1-4</td><td>40 A</td><td>3.75</td></tr> <tr><td>81</td><td>5</td><td>20 A</td><td>2.85</td></tr> <tr><td>82</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>85</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>77</td><td>5</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75	81	5	20 A	2.85	82	5	30 A	3.20	85	5	30 A	3.20	77	5	40 A	3.75	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAT73N20X
	For other Power contacts select code from spread sheet																																													
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	77	5	40 A	3.75																																										
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	11W1	3011W1SAT73N20X																																												
	13W3	3013W3SAT73N20X																																												
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Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

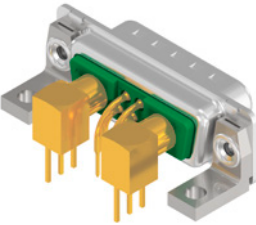
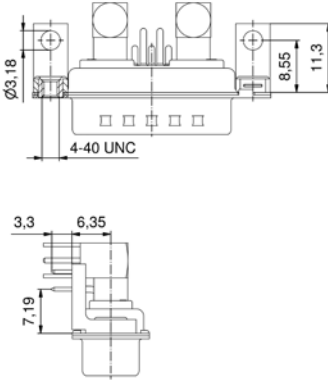
### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact																																							
  <table border="1" data-bbox="103 1556 598 1803"> <thead> <tr> <th colspan="4">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>59</td><td>1-4</td><td>15 A</td><td>1.90</td></tr> <tr><td>73</td><td>1-4</td><td>20 A</td><td>2.85</td></tr> <tr><td>74</td><td>1-4</td><td>30 A</td><td>3.20</td></tr> <tr><td>75</td><td>1-4</td><td>40 A</td><td>3.75</td></tr> <tr><td>81</td><td>5</td><td>20 A</td><td>2.85</td></tr> <tr><td>82</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>85</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>77</td><td>5</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75	81	5	20 A	2.85	82	5	30 A	3.20	85	5	30 A	3.20	77	5	40 A	3.75	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAT73N40X
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	11W1	3011W1SAT73N40X																																												
	13W3	3013W3SAT73N40X																																												
	13W6	3013W6SAT73N40X																																												
17W2	3017W2SAT73N40X																																													
17W5	3017W5SAT73N40X																																													
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25W3	3025W3SAT73N40X																																													
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43W2	3043W2SAT81N40X																																													
47W1	3047W1SAT81N40X																																													
21WA4	321WA4SAT73N40X																																													

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, angled, 3.18"/7.19 mm  
Precision machined contacts, metal bracket

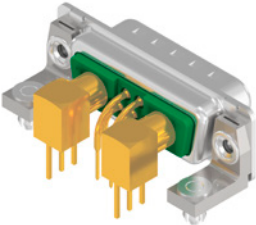
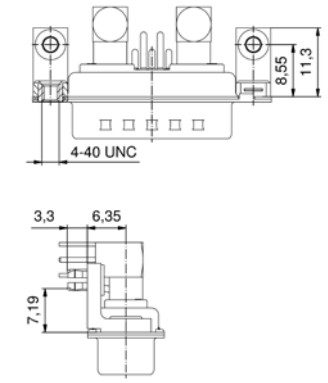
4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
 		5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAT78N20X
		7W2					3007W2SAT78N20X
		9W4					3009W4SAT78N20X
		11W1					3011W1SAT78N20X
		13W3					3013W3SAT78N20X
		13W6					3013W6SAT78N20X
		17W2					3017W2SAT78N20X
		17W5					3017W5SAT78N20X
		21W1					3021W1SAT78N20X
		24W7					3024W7SAT79N20X
		25W3					3025W3SAT78N20X
		27W2					3027W2SAT78N20X
		36W4					3036W4SAT79N20X
		43W2					3043W2SAT79N20X
		47W1					3047W1SAT79N20X
		21WA4					321WA4SAT78N20X

For other coaxial contacts select code from spread sheet		
Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
 		5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAT78N40X
		7W2					3007W2SAT78N40X
		9W4					3009W4SAT78N40X
		11W1					3011W1SAT78N40X
		13W3					3013W3SAT78N40X
		13W6					3013W6SAT78N40X
		17W2					3017W2SAT78N40X
		17W5					3017W5SAT78N40X
		21W1					3021W1SAT78N40X
		24W7					3024W7SAT79N40X
		25W3					3025W3SAT78N40X
		27W2					3027W2SAT78N40X
		36W4					3036W4SAT79N40X
		43W2					3043W2SAT79N40X
		47W1					3047W1SAT79N40X
		21WA4					321WA4SAT78N40X

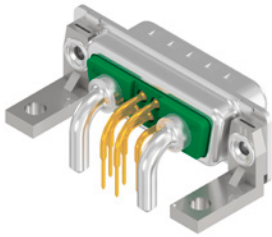
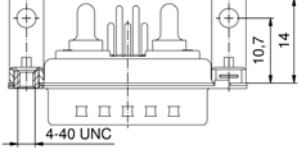
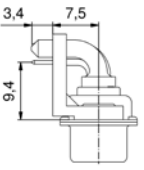
For other coaxial contacts select code from spread sheet		
Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & high power contacts 20 A

Solder pin, angled, 3.70"/9.4 mm  
Precision machined contacts, metal bracket

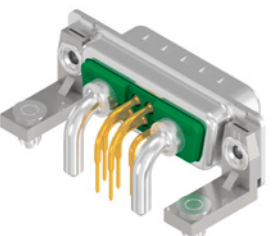
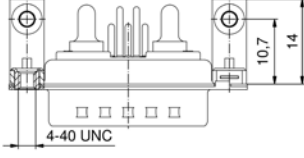
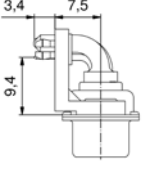
4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
  	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU73G20X	
	7W2					3007W2SAU73G20X	
	9W4					3009W4SAU73G20X	
	11W1					3011W1SAU73G20X	
	13W3					3013W3SAU73G20X	
	13W6					3013W6SAU73G20X	
	17W2					3017W2SAU73G20X	
	17W5					3017W5SAU73G20X	
	21W1					3021W1SAU73G20X	
	24W7					3024W7SAU81G20X	
	25W3					3025W3SAU73G20X	
	27W2					3027W2SAU73G20X	
	36W4					3036W4SAU81G20X	
	43W2					3043W2SAU81G20X	
	47W1					3047W1SAU81G20X	
	21WA4					321WA4SAU73G20X	

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
  	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU73G40X	
	7W2					3007W2SAU73G40X	
	9W4					3009W4SAU73G40X	
	11W1					3011W1SAU73G40X	
	13W3					3013W3SAU73G40X	
	13W6					3013W6SAU73G40X	
	17W2					3017W2SAU73G40X	
	17W5					3017W5SAU73G40X	
	21W1					3021W1SAU73G40X	
	24W7					3024W7SAU81G40X	
	25W3					3025W3SAU73G40X	
	27W2					3027W2SAU73G40X	
	36W4					3036W4SAU81G40X	
	43W2					3043W2SAU81G40X	
	47W1					3047W1SAU81G40X	
	21WA4					321WA4SAU73G40X	

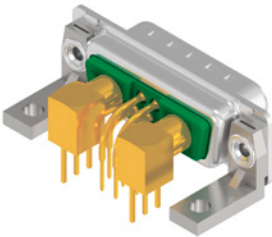
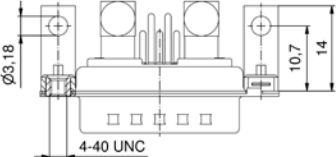
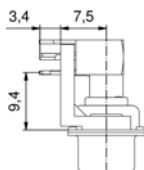
For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**COMBINATION D-SUB CONNECTORS**  
With signal contacts & coaxial contacts 50 Ω

Solder pin, angled, 3.70"/9.4 mm  
Precision machined contacts, metal bracket

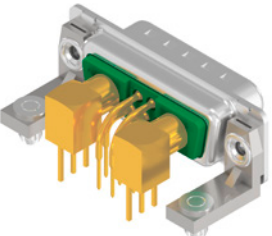
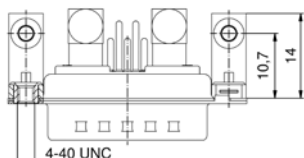
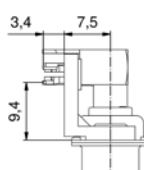
4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
  	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU78G20X	
	7W2					3007W2SAU78G20X	
	9W4					3009W4SAU78G20X	
	11W1					3011W1SAU78G20X	
	13W3					3013W3SAU78G20X	
	13W6					3013W6SAU78G20X	
	17W2					3017W2SAU78G20X	
	17W5					3017W5SAU78G20X	
	21W1					3021W1SAU78G20X	
	24W7					3024W7SAU79G20X	
	25W3					3025W3SAU78G20X	
	27W2					3027W2SAU78G20X	
	36W4					3036W4SAU79G20X	
	43W2					3043W2SAU79G20X	
	47W1					3047W1SAU79G20X	
	21WA4					321WA4SAU78G20X	

For other coaxial contacts select code from spread sheet

Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact
  	5W1	75 (UL) / 5 (CSA, VDE)	250	E228329	3	3005W1SAU78G40X	
	7W2					3007W2SAU78G40X	
	9W4					3009W4SAU78G40X	
	11W1					3011W1SAU78G40X	
	13W3					3013W3SAU78G40X	
	13W6					3013W6SAU78G40X	
	17W2					3017W2SAU78G40X	
	17W5					3017W5SAU78G40X	
	21W1					3021W1SAU78G40X	
	24W7					3024W7SAU79G40X	
	25W3					3025W3SAU78G40X	
	27W2					3027W2SAU78G40X	
	36W4					3036W4SAU79G40X	
	43W2					3043W2SAU79G40X	
	47W1					3047W1SAU79G40X	
	21WA4					321WA4SAU78G40X	

For other coaxial contacts select code from spread sheet

Code	Impedance	Shellsize
78	50 Ω	1-4
79	50 Ω	5
88	75 Ω	1-4
89	75 Ω	5

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

Solder cup  
Precision machined contacts, AWG 22

Through-hole  $\varnothing$  3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

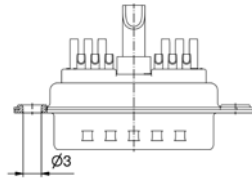
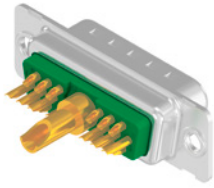
No. of poles

Current rating signal contacts [A]

Working voltage [V]

Quality class

Part No. Socket contact Part No. Plug contact



15W4

19W1

45W2

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAM62A10X 3H15W4PAM62A10X

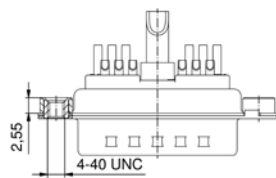
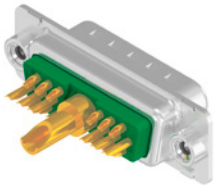
3H19W1SAM62A10X 3H19W1PAM62A10X

3H45W2SAM62A10X 3H45W2PAM62A10X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

4-40 UNC threaded insert



15W4

19W1

45W2

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAM62A30X 3H15W4PAM62A30X

3H19W1SAM62A30X 3H19W1PAM62A30X

3H45W2SAM62A30X 3H45W2PAM62A30X

For other Power contacts select code from spread sheet

Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A
63	10-12	30 A
64	8-10	40 A

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

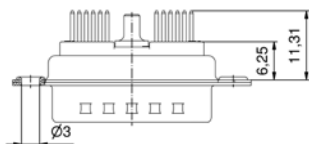
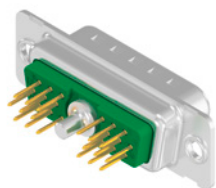
Solder pin, straight  
Precision machined contacts

Through-hole  $\varnothing$  3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles  
Current rating signal contacts [A]  
Working voltage [V]  
Quality class

Part No. Socket contact Part No. Plug contact



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR69A10X

3H15W4PAR69A10X

19W1

3H19W1SAR69A10X

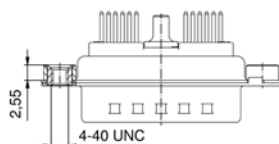
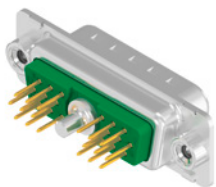
3H19W1PAR69A10X

45W2

3H45W2SAR69A10X

3H45W2PAR69A10X

4-40 UNC threaded insert



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR69A30X

3H15W4PAR69A30X

19W1

3H19W1SAR69A30X

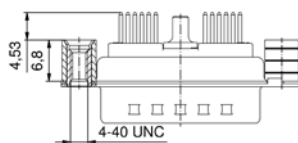
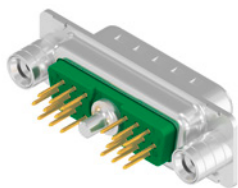
3H19W1PAR69A30X

45W2

3H45W2SAR69A30X

3H45W2PAR69A30X

4-40 UNC threaded rear spacer



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR69A50X

3H15W4PAR69A50X

19W1

3H19W1SAR69A50X

3H19W1PAR69A50X

45W2

3H45W2SAR69A50X

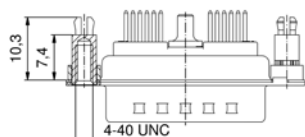
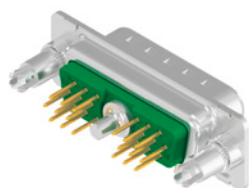
3H45W2PAR69A50X



## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

### 4-40 UNC threaded rear spacer clip for PCB 1.6 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

No. of poles

Current rating signal contacts [A]

Working voltage [V]

Quality class

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Part No. Socket contact Part No. Plug contact

15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR69E20X

3H15W4PAR69E20X

19W1

3H19W1SAR69E20X

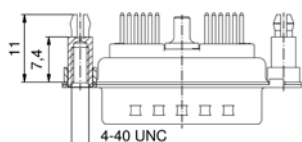
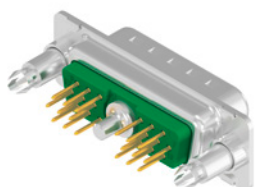
3H19W1PAR69E20X

45W2

3H45W2SAR69E20X

3H45W2PAR69E20X

### 4-40 UNC threaded rear spacer clip for PCB 2.3 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2.60
71	30 A	3.18
72	40 A	3.75

15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR69E40X

3H15W4PAR69E40X

19W1

3H19W1SAR69E40X

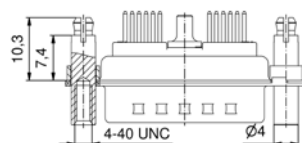
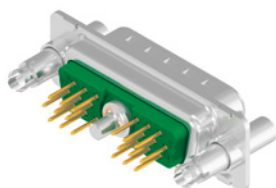
3H19W1PAR69E40X

45W2

3H45W2SAR69E40X

3H45W2PAR69E40X

### 4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

15W4

3 (UL, VDE) / 2.5 (CSA)

60

3

3H15W4SAR69F20X

3H15W4PAR69F20X

19W1

3H19W1SAR69F20X

3H19W1PAR69F20X

45W2

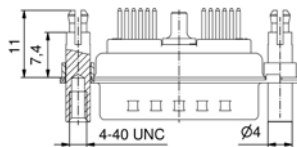
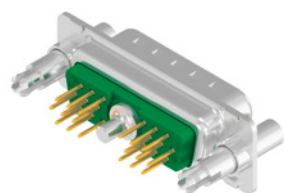
3H45W2SAR69F20X

3H45W2PAR69F20X

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

Solder pin, straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 2.3 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

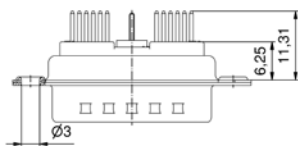
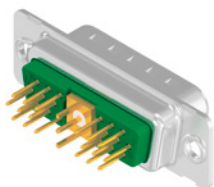
No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2,5 (CSA)	60	3	3H15W4SAR69F40X	3H15W4PAR69F40X
19W1				3H19W1SAR69F40X	3H19W1PAR69F40X
45W2				3H45W2SAR69F40X	3H45W2PAR69F40X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

Through-hole Ø 3 mm



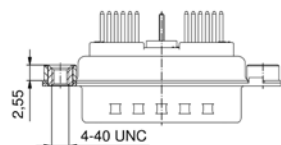
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2,5 (CSA)	60	3	3H15W4SAR76A10X	3H15W4PAR76A10X
19W1				3H19W1SAR76A10X	3H19W1PAR76A10X
45W2				3H45W2SAR76A10X	3H45W2PAR76A10X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert



For other coaxial contacts select code from spread sheet

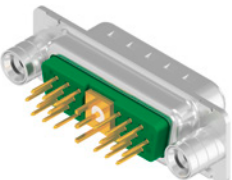
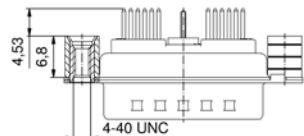
Code	Impedance
76	50 Ω
86	75 Ω

No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2,5 (CSA)	60	3	3H15W4SAR76A30X	3H15W4PAR76A30X
19W1				3H19W1SAR76A30X	3H19W1PAR76A30X
45W2				3H45W2SAR76A30X	3H45W2PAR76A30X

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer

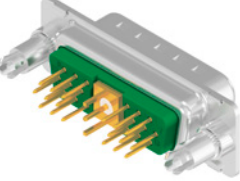
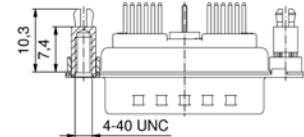
4-40 UNC threaded rear spacer		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL VDE) / 2.5 (CSA)	60	3	3H15W4SAR76A50X	3H15W4PAR76A50X	
	19W1				3H19W1SAR76A50X	3H19W1PAR76A50X	
	45W2				3H45W2SAR76A50X	3H45W2PAR76A50X	

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

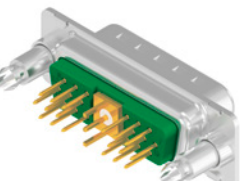
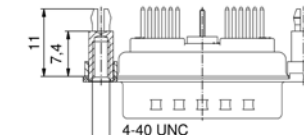
4-40 UNC threaded rear spacer clip for PCB 1.6 mm

4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL VDE) / 2.5 (CSA)	60	3	3H15W4SAR76E20X	3H15W4PAR76E20X	
	19W1				3H19W1SAR76E20X	3H19W1PAR76E20X	
	45W2				3H45W2SAR76E20X	3H45W2PAR76E20X	

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

4-40 UNC threaded rear spacer clip for PCB 2.3 mm		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
 	15W4	3 (UL VDE) / 2.5 (CSA)	60	3	3H15W4SAR76E40X	3H15W4PAR76E40X	
	19W1				3H19W1SAR76E40X	3H19W1PAR76E40X	
	45W2				3H45W2SAR76E40X	3H45W2PAR76E40X	

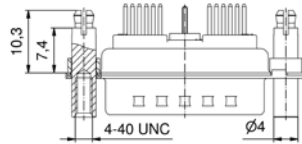
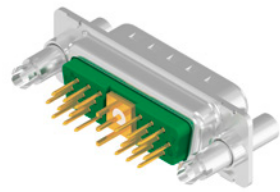
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω

Solder pin, straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1,6 mm



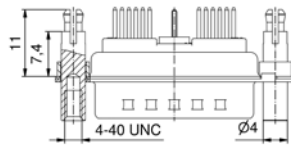
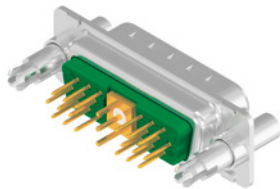
For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76F20X	3H15W4PAR76F20X
19W1				3H19W1SAR76F20X	3H19W1PAR76F20X
45W2				3H45W2SAR76F20X	3H45W2PAR76F20X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 2,3 mm



For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

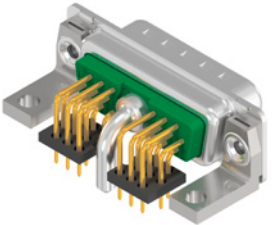
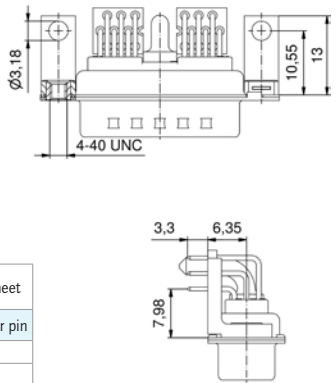
No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAR76F40X	3H15W4PAR76F40X
19W1				3H19W1SAR76F40X	3H19W1PAR76F40X
45W2				3H45W2SAR76F40X	3H45W2PAR76F40X

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & high power contacts 20 A

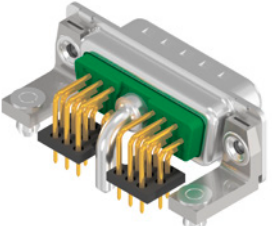
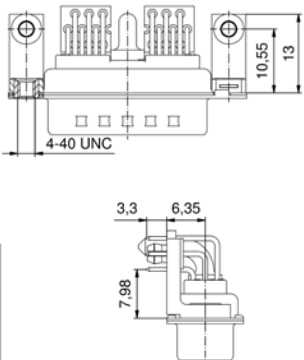
Solder pin, angled, 3.50"/7.98 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact																	
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>59</td> <td>15 A</td> <td>1.90</td> </tr> <tr> <td>73</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>74</td> <td>30 A</td> <td>3.20</td> </tr> <tr> <td>75</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	59	15 A	1.90	73	20 A	2.85	74	30 A	3.20	75	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT73G60X	3H15W4PAT73G60X
	For other Power contacts select code from spread sheet																							
	Code	Current rating	Diameter solder pin																					
59	15 A	1.90																						
73	20 A	2.85																						
74	30 A	3.20																						
75	40 A	3.75																						
19W1	3H19W1SAT73G60X	3H19W1PAT73G60X																						
45W2	3H45W2SAT73G60X	3H45W2PAT73G60X																						

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

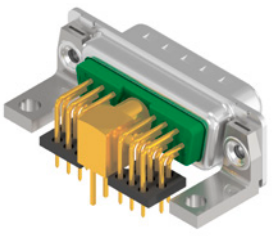
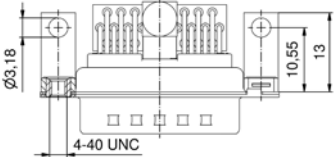
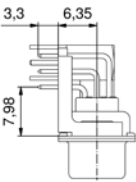
Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact																	
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>59</td> <td>15 A</td> <td>1.90</td> </tr> <tr> <td>73</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>74</td> <td>30 A</td> <td>3.20</td> </tr> <tr> <td>75</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	59	15 A	1.90	73	20 A	2.85	74	30 A	3.20	75	40 A	3.75	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT73G80X	3H15W4PAT73G80X
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75	40 A	3.75																						
19W1	3H19W1SAT73G80X	3H19W1PAT73G80X																						
45W2	3H45W2SAT73G80X	3H45W2PAT73G80X																						

## COMBINATION D-SUB CONNECTORS HIGH DENSITY With signal contacts & coaxial contacts 50 Ω

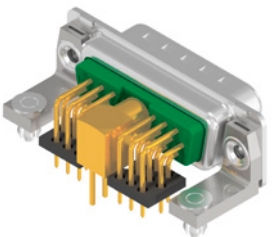
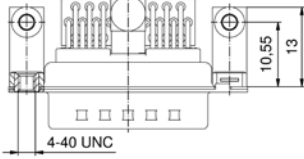
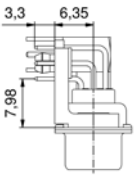
Solder pin, angled, 3.50"/7.98 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact							
   <table border="1"> <tr> <td colspan="2">For other coaxial contacts select code from spread sheet</td> </tr> <tr> <th>Code</th> <th>Impedance</th> </tr> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </table>	For other coaxial contacts select code from spread sheet		Code	Impedance	78	50 Ω	88	75 Ω	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT78G60X	3H15W4PAT78G60X
	For other coaxial contacts select code from spread sheet													
	Code	Impedance												
78	50 Ω													
88	75 Ω													
19W1	3H19W1SAT78G60X	3H19W1PAT78G60X												
45W2	3H45W2SAT78G60X	3H45W2PAT78G60X												

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact							
   <table border="1"> <tr> <td colspan="2">For other coaxial contacts select code from spread sheet</td> </tr> <tr> <th>Code</th> <th>Impedance</th> </tr> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </table>	For other coaxial contacts select code from spread sheet		Code	Impedance	78	50 Ω	88	75 Ω	15W4	3 (UL, VDE) / 2.5 (CSA)	60	3	3H15W4SAT78G80X	3H15W4PAT78G80X
	For other coaxial contacts select code from spread sheet													
	Code	Impedance												
78	50 Ω													
88	75 Ω													
19W1	3H19W1SAT78G80X	3H19W1PAT78G80X												
45W2	3H45W2SAT78G80X	3H45W2PAT78G80X												


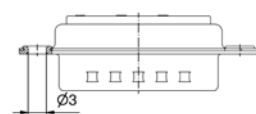


## COMBINATION D-SUB CONNECTORS Without contacts


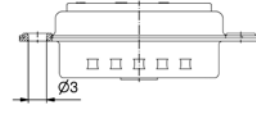
For straight high power, coaxial or  
High voltage contacts

Shell: Steel tin plated  
On request:  
• Brass tin plated or stainless steel  
• M3 thread


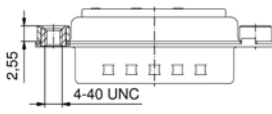
Through-hole Ø 3 mm

 	No. of poles	UL-File	Part No. Socket contact	Part No. Plug contact
	3W3		E228329	3003W3SXX99A10X
5W5	E228329	3005W5SXX99A10X	3005W5PXX99A10X	
8W8	E228329	3008W8SXX99A10X	3008W8PXX99A10X	


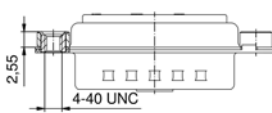
Through-hole Ø 3 mm, coded version

 	No. of poles	UL-File	Part No. Socket contact	Part No. Plug contact
	2W2C		E228329	302W2CSXX99A10X
3W3C	E228329	303W3CSXX99A10X	303W3CPXX99A10X	

4-40 UNC threaded insert

 	No. of poles	UL-File	Part No. Socket contact	Part No. Plug contact	
	3W3		E228329	3003W3SXX99A30X	3003W3PXX99A30X
	5W5		E228329	3005W5SXX99A30X	3005W5PXX99A30X
8W8	E228329	3008W8SXX99A30X	3008W8PXX99A30X		

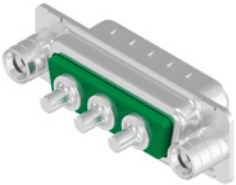
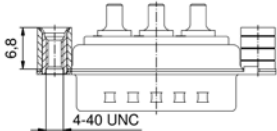
4-40 UNC threaded insert, coded version

 	No. of poles	UL-File	Part No. Socket contact	Part No. Plug contact
	2W2C		E228329	302W2CSXX99A30X
3W3C	E228329	303W3CSXX99A30X	303W3CPXX99A30X	

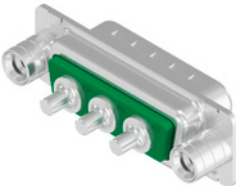
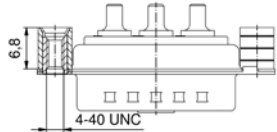
## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, straight

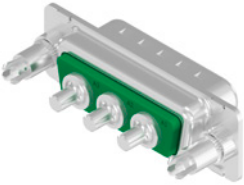
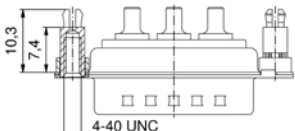
### 4-40 UNC threaded rear spacer

4-40 UNC threaded rear spacer		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																				
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>20 A</td> <td>1.95</td> </tr> <tr> <td>69</td> <td>20 A</td> <td>2.60</td> </tr> <tr> <td>70</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3.18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	3W3	E228329	3	3003W3SXX69A50X	3003W3PXX69A50X
	For other Power contacts select code from spread sheet																									
	Code	Current rating	Diameter solder pin																							
68	20 A	1.95																								
69	20 A	2.60																								
70	20 A	2.85																								
71	30 A	3.18																								
72	40 A	3.75																								
5W5	3005W5SXX69A50X	3005W5PXX69A50X																								
8W8	3008W8SXX69A50X	3008W8PXX69A50X																								

### 4-40 UNC, threaded rear spacer, coded version

4-40 UNC, threaded rear spacer, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																				
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>20 A</td> <td>1.95</td> </tr> <tr> <td>69</td> <td>20 A</td> <td>2.60</td> </tr> <tr> <td>70</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3.18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	2W2C	E228329	3	302W2CSXX69A50X	302W2CPXX69A50X
	For other Power contacts select code from spread sheet																									
Code	Current rating	Diameter solder pin																								
68	20 A	1.95																								
69	20 A	2.60																								
70	20 A	2.85																								
71	30 A	3.18																								
72	40 A	3.75																								
3W3C	303W3CSXX69A50X	303W3CPXX69A50X																								

### 4-40 UNC threaded rear spacer clip for PCB 1.6 mm

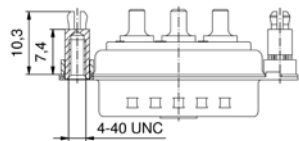
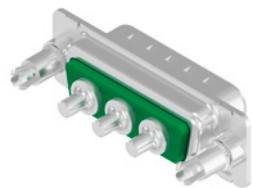
4-40 UNC threaded rear spacer clip for PCB 1.6 mm		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																				
  <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>68</td> <td>20 A</td> <td>1.95</td> </tr> <tr> <td>69</td> <td>20 A</td> <td>2.60</td> </tr> <tr> <td>70</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3.18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	68	20 A	1.95	69	20 A	2.60	70	20 A	2.85	71	30 A	3.18	72	40 A	3.75	3W3	E228329	3	3003W3SXX69E20X	3003W3PXX69E20X
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70	20 A	2.85																								
71	30 A	3.18																								
72	40 A	3.75																								
5W5	3005W5SXX69E20X	3005W5PXX69E20X																								
8W8	3008W8SXX69E20X	3008W8PXX69E20X																								

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, straight

4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

No. of poles

UL-File

Quality class

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Part No. Socket contact Part No. Plug contact

2W2C

E228329

3

302W2CSXX69E20X

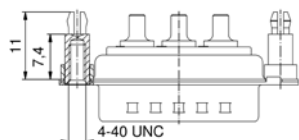
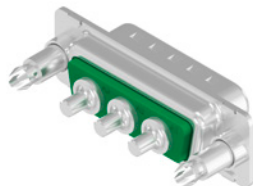
302W2CPXX69E20X

3W3C

303W3CSXX69E20X

303W3CPXX69E20X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

3W3

E228329

3

3003W3SXX69E40X

3003W3PXX69E40X

5W5

3005W5SXX69E40X

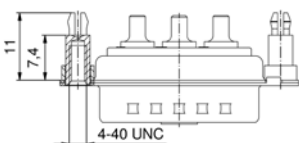
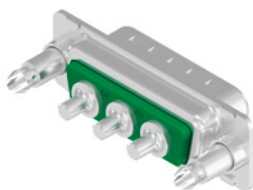
3005W5PXX69E40X

8W8

3008W8SXX69E40X

3008W8PXX69E40X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm, coded version



For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
69	20 A	2,60
71	30 A	3,18
72	40 A	3,75

2W2C

E228329

3

302W2CSXX69E40X

302W2CPXX69E40X

3W3C

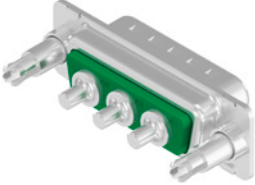
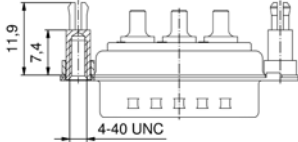
303W3CSXX69E40X

303W3CPXX69E40X

**COMBINATION D-SUB CONNECTORS**  
With high power contacts 20 A

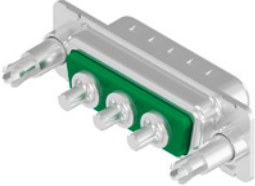
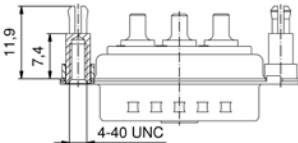
Solder pin, straight

4-40 UNC threaded rear spacer clip for PCB 3.2 mm

4-40 UNC threaded rear spacer clip for PCB 3.2 mm		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact														
  <table border="1" data-bbox="100 616 467 759"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>69</td> <td>20 A</td> <td>2,60</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3,18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3,75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	69	20 A	2,60	71	30 A	3,18	72	40 A	3,75	3W3	E228329	3	3003W3SXX69E60X	3003W3PXX69E60X
	For other Power contacts select code from spread sheet																			
	Code	Current rating	Diameter solder pin																	
69	20 A	2,60																		
71	30 A	3,18																		
72	40 A	3,75																		
5W5	3005W5SXX69E60X	3005W5PXX69E60X																		
8W8	3008W8SXX69E60X	3008W8PXX69E60X																		

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version

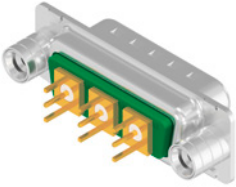
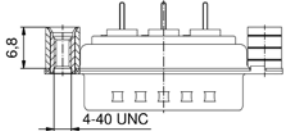
4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact														
  <table border="1" data-bbox="100 1104 467 1247"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>69</td> <td>20 A</td> <td>2,60</td> </tr> <tr> <td>71</td> <td>30 A</td> <td>3,18</td> </tr> <tr> <td>72</td> <td>40 A</td> <td>3,75</td> </tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	Current rating	Diameter solder pin	69	20 A	2,60	71	30 A	3,18	72	40 A	3,75	2W2C	E228329	3	302W2CSXX69E60X	302W2CPXX69E60X
	For other Power contacts select code from spread sheet																			
Code	Current rating	Diameter solder pin																		
69	20 A	2,60																		
71	30 A	3,18																		
72	40 A	3,75																		
3W3C	303W3CSXX69E60X	303W3CPXX69E60X																		

**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, straight

4-40 UNC threaded rear spacer

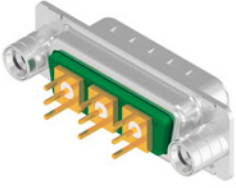
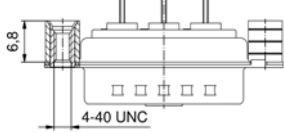
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		3W3	E228329	3	3003W3SXX76A50X	3003W3PXX76A50X
		5W5			3005W5SXX76A50X	3005W5PXX76A50X
		8W8			3008W8SXX76A50X	3008W8PXX76A50X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

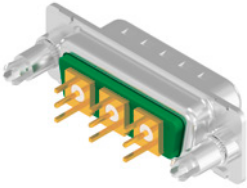
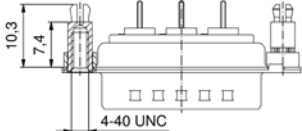
4-40 UNC, threaded rear spacer, coded version

 		2W2C	E228329	3	302W2CSXX76A50X	302W2CPXX76A50X
		3W3C			303W3CSXX76A50X	303W3CPXX76A50X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

 		3W3	E228329	3	3003W3SXX76E20X	3003W3PXX76E20X
		5W5			3005W5SXX76E20X	3005W5PXX76E20X
		8W8			3008W8SXX76E20X	3008W8PXX76E20X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

## COMBINATION D-SUB CONNECTORS With coaxial contacts 50 Ω

Solder pin, straight

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

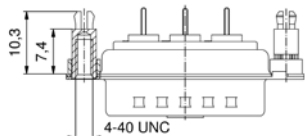
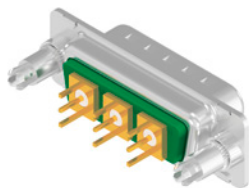
4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version

No. of poles

UL-File

Quality class

Part No. Socket contact Part No. Plug contact



2W2C

E228329

3

302W2CSXX76E20X

302W2CPXX76E20X

For other coaxial contacts select code from spread sheet

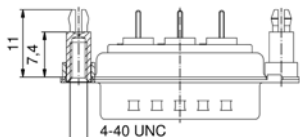
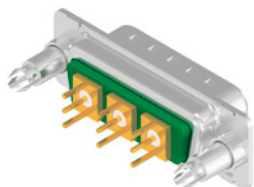
Code	Impedance
76	50 Ω
86	75 Ω

3W3C

303W3CSXX76E20X

303W3CPXX76E20X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm



3W3

E228329

3

3003W3SXX76E40X

3003W3PXX76E40X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

5W5

3005W5SXX76E40X

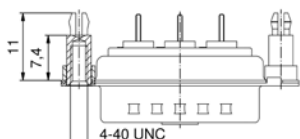
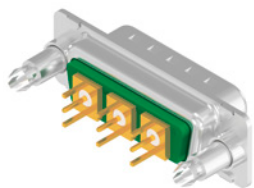
3005W5PXX76E40X

8W8

3008W8SXX76E40X

3008W8PXX76E40X

4-40 UNC threaded rear spacer clip for PCB 2.3 mm, coded version



2W2C

E228329

3

302W2CSXX76E40X

302W2CPXX76E40X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

3W3C

303W3CSXX76E40X

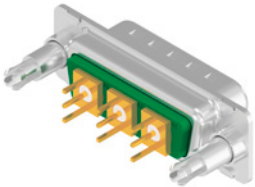
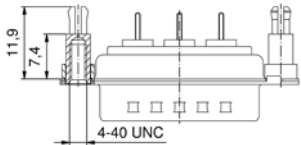
303W3CPXX76E40X



**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, straight

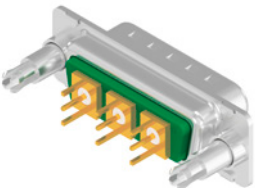
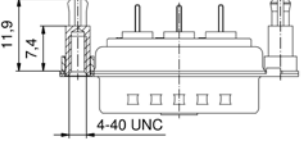
4-40 UNC threaded rear spacer clip for PCB 3.2 mm

4-40 UNC threaded rear spacer clip for PCB 3.2 mm		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		3W3	E228329	3	3003W3SXX76E60X	3003W3PXX76E60X
		5W5			3005W5SXX76E60X	3005W5PXX76E60X
		8W8			3008W8SXX76E60X	3008W8PXX76E60X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version

4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		2W2C	E228329	3	302W2CSXX76E60X	302W2CPXX76E60X
		3W3C			303W3CSXX76E60X	303W3CPXX76E60X

For other coaxial contacts select code from spread sheet

Code	Impedance
76	50 Ω
86	75 Ω

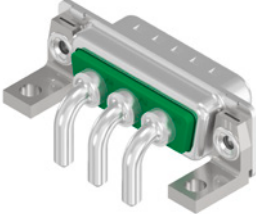
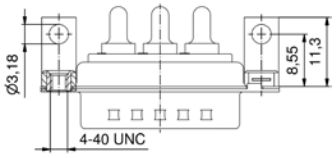
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS

### With high power contacts 20 A

Solder pin, angled  
Short metal bracket

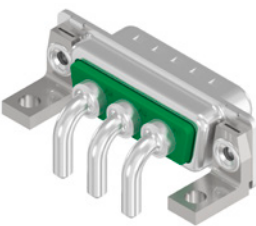
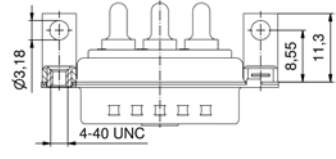
4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		3W3	E228329	3	3003W3SXX73N20X	3003W3PXX73N20X
		5W5			3005W5SXX73N20X	3005W5PXX73N20X
		8W8			3008W8SXX73N20X	3008W8PXX73N20X

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75


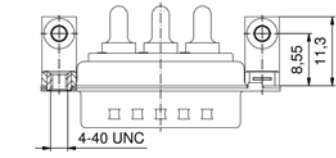
4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		2W2C	E228329	3	302W2CSXX73N20X	302W2CPXX73N20X
		3W3C			303W3CSXX73N20X	303W3CPXX73N20X

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		3W3	E228329	3	3003W3SXX73N40X	3003W3PXX73N40X
		5W5			3005W5SXX73N40X	3005W5PXX73N40X
		8W8			3008W8SXX73N40X	3008W8PXX73N40X

For other Power contacts select code from spread sheet

Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

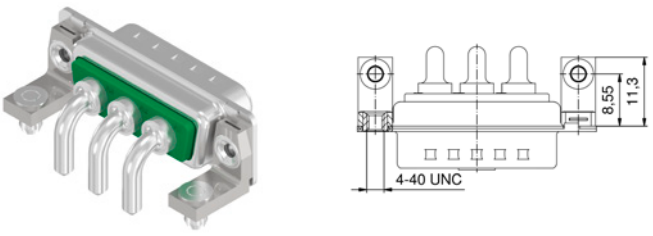
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS With high power contacts 20 A

Solder pin, angled  
Short metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

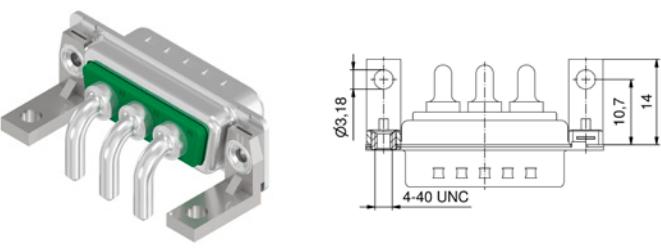
Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C	E228329	3	302W2CSXX73N40X	302W2CPXX73N40X	
	3W3C			303W3CSXX73N40X	303W3CPXX73N40X	

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Solder pin, angled  
Long metal bracket

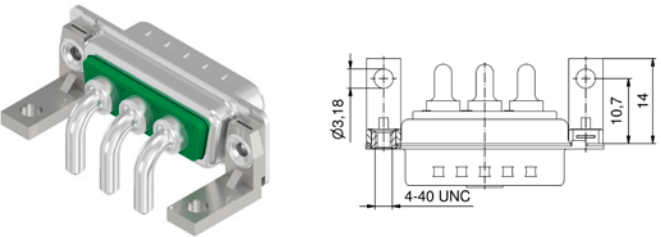
4-40 UNC threaded insert

	3W3	E228329	3	3003W3SXX73G20X	3003W3PXX73G20X
	5W5			3005W5SXX73G20X	3005W5PXX73G20X
	8W8			3008W8SXX73G20X	3008W8PXX73G20X

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

4-40 UNC threaded insert, coded version

	2W2C	E228329	3	302W2CSXX73G20X	302W2CPXX73G20X
	3W3C			303W3CSXX73G20X	303W3CPXX73G20X

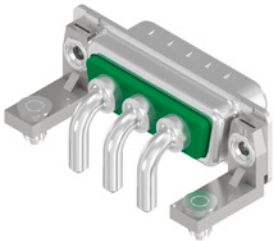
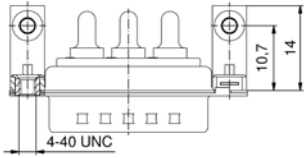
  

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

**COMBINATION D-SUB CONNECTORS**  
With high power contacts 20 A

Solder pin, angled  
Long metal bracket

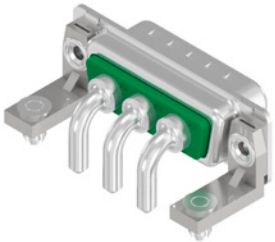
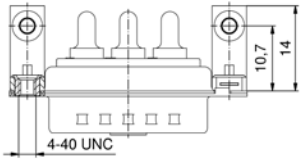
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact		
 		3W3	E228329	3	3003W3SXX73G40X	3003W3PXX73G40X		
		5W5					3005W5SXX73G40X	3005W5PXX73G40X
		8W8					3008W8SXX73G40X	3008W8PXX73G40X

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version		No. of poles	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 		2W2C	E228329	3	302W2CSXX73G40X	302W2CPXX73G40X
		3W3C				

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
59	15 A	1.90
73	20 A	2.85
74	30 A	3.20
75	40 A	3.75

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

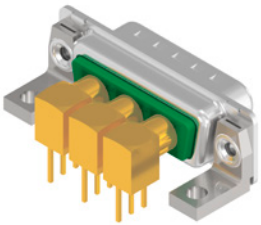
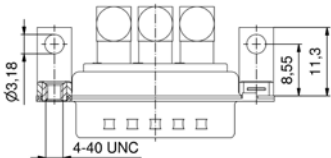
**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, angled  
Short metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

No. of poles		UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
3W3				E228329	3	3003W3SXX78N20X	3003W3PXX78N20X
5W5		3005W5SXX78N20X	3005W5PXX78N20X				
8W8		3008W8SXX78N20X	3008W8PXX78N20X				

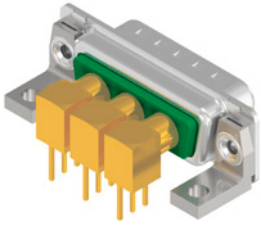
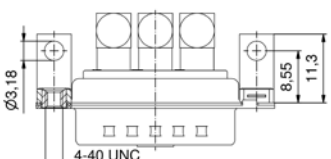



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

4-40 UNC threaded insert, coded version

2W2C		E228329	3	302W2CSXX78N20X	302W2CPXX78N20X		
3W3C				303W3CSXX78N20X	303W3CPXX78N20X		

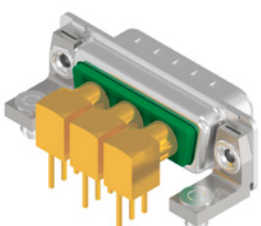
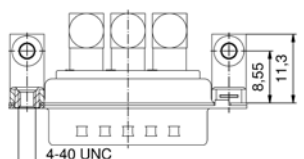



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

3W3		E228329	3	3003W3SXX78N40X	3003W3PXX78N40X		
5W5				3005W5SXX78N40X	3005W5PXX78N40X		
8W8				3008W8SXX78N40X	3008W8PXX78N40X		

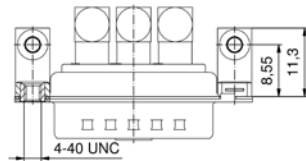
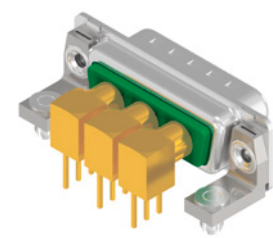
For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

## COMBINATION D-SUB CONNECTORS With coaxial contacts 50 Ω

Solder pin, angled  
Short metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

No. of poles

UL-File

Quality class

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

Part No. Socket contact    Part No. Plug contact

2W2C

E228329

3

302W2CSXX78N40X

302W2CPXX78N40X

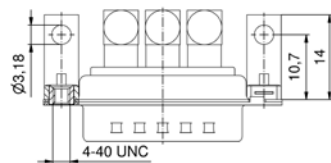
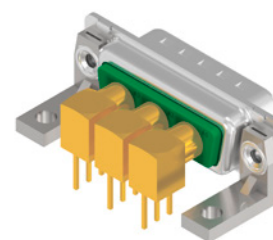
3W3C

303W3CSXX78N40X

303W3CPXX78N40X

Solder pin, angled  
Long metal bracket

4-40 UNC threaded insert



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

3W3

E228329

3

3003W3SXX78G20X

3003W3PXX78G20X

5W5

3005W5SXX78G20X

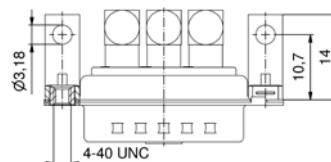
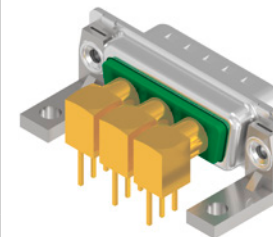
3005W5PXX78G20X

8W8

3008W8SXX78G20X

3008W8PXX78G20X

4-40 UNC threaded insert, coded version



For other coaxial contacts select code from spread sheet

Code	Impedance
78	50 Ω
88	75 Ω

2W2C

E228329

3

302W2CSXX78G20X

302W2CPXX78G20X

3W3C

303W3CSXX78G20X

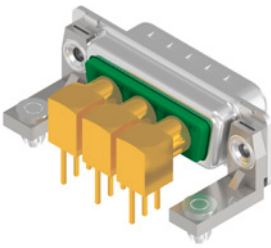
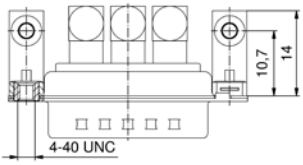
303W3CPXX78G20X



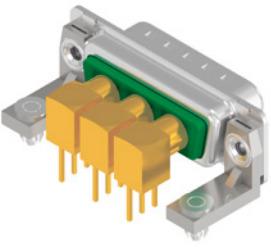
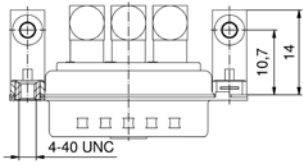
**COMBINATION D-SUB CONNECTORS**  
With coaxial contacts 50 Ω

Solder pin, angled  
Long metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 		No. of poles	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact							
For other coaxial contacts select code from spread sheet <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	3W3	E228329	3	3003W3SXX78G40X	3003W3PXX78G40X		
		Code	Impedance											
		78	50 Ω											
88	75 Ω													
5W5	3005W5SXX78G40X	3005W5PXX78G40X												
8W8	3008W8SXX78G40X	3008W8PXX78G40X												

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

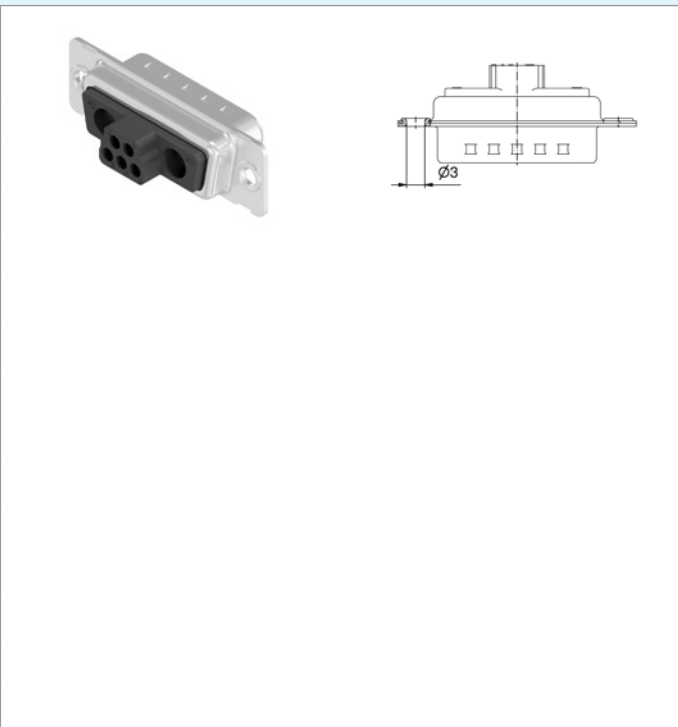
 		No. of poles	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact							
For other coaxial contacts select code from spread sheet <table border="1"> <thead> <tr> <th>Code</th> <th>Impedance</th> </tr> </thead> <tbody> <tr> <td>78</td> <td>50 Ω</td> </tr> <tr> <td>88</td> <td>75 Ω</td> </tr> </tbody> </table>		Code	Impedance	78	50 Ω	88	75 Ω	2W2C	E228329	3	302W2CSXX78G40X	302W2CPXX78G40X		
		Code	Impedance											
78	50 Ω													
88	75 Ω													
3W3C	303W3CSXX78G40X	303W3CPXX78G40X												

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class J >= 500 mating cycles  
• M3 thread

## COMBINATION D-SUB CONNECTORS Without contacts

Crimp body  
AWG 20-24 and AWG 26-28

Through-hole  $\varnothing$  3 mm



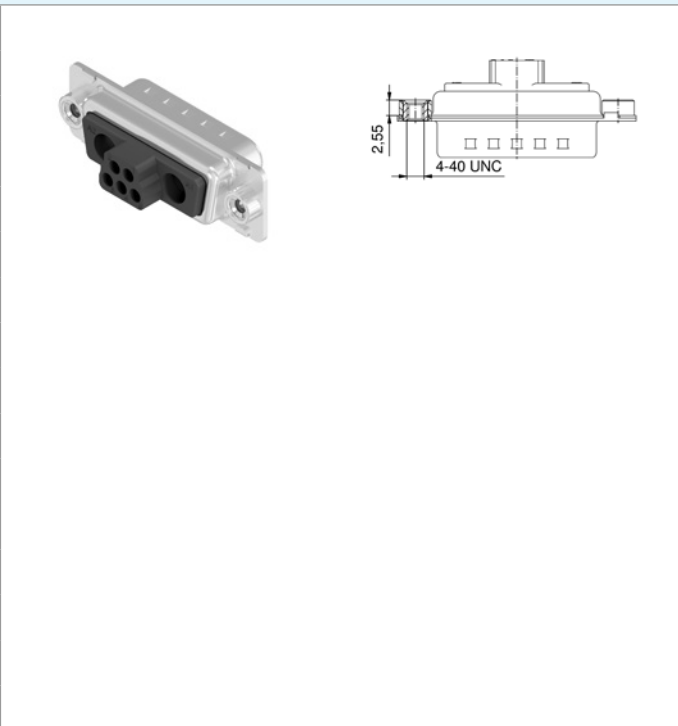
No. of poles

UL-File

Shell: Steel tin plated  
On request:  
• Brass tin plated or stainless steel  
• M3 thread

Part No. Socket contact	Part No. Plug contact
3005W1SXX99A10X	3005W1PXX99A10X
3007W2SXX99A10X	3007W2PXX99A10X
3009W4SXX99A10X	3009W4PXX99A10X
3011W1SXX99A10X	3011W1PXX99A10X
3013W3SXX99A10X	3013W3PXX99A10X
3013W6SXX99A10X	3013W6PXX99A10X
3017W2SXX99A10X	3017W2PXX99A10X
3017W5SXX99A10X	3017W5PXX99A10X
3021W1SXX99A10X	3021W1PXX99A10X
3024W7SXX99A10X	3024W7PXX99A10X
3025W3SXX99A10X	3025W3PXX99A10X
3027W2SXX99A10X	3027W2PXX99A10X
3036W4SXX99A10X	3036W4PXX99A10X
3043W2SXX99A10X	3043W2PXX99A10X
3047W1SXX99A10X	3047W1PXX99A10X
321WA4SXX99A10X	321WA4PXX99A10X

4-40 UNC threaded insert



No. of poles


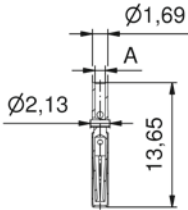
UL-File

3005W1SXX99A30X	3005W1PXX99A30X
3007W2SXX99A30X	3007W2PXX99A30X
3009W4SXX99A30X	3009W4PXX99A30X
3011W1SXX99A30X	3011W1PXX99A30X
3013W3SXX99A30X	3013W3PXX99A30X
3013W6SXX99A30X	3013W6PXX99A30X
3017W2SXX99A30X	3017W2PXX99A30X
3017W5SXX99A30X	3017W5PXX99A30X
3021W1SXX99A30X	3021W1PXX99A30X
3024W7SXX99A30X	3024W7PXX99A30X
3025W3SXX99A30X	3025W3PXX99A30X
3027W2SXX99A30X	3027W2PXX99A30X
3036W4SXX99A30X	3036W4PXX99A30X
3043W2SXX99A30X	3043W2PXX99A30X
3047W1SXX99A30X	3047W1PXX99A30X
321WA4SXX99A30X	321WA4PXX99A30X

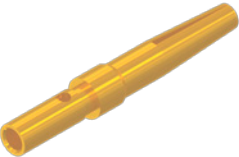
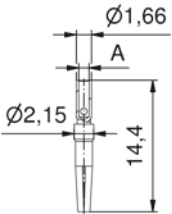
## COMBINATION D-SUB CONNECTORS Contacts

### Signal contacts crimp

#### Socket contact closed entry

	AWG	Current rating [A]	$\varnothing A$ [mm]	Quality class	UL-File	Part No.
 	20-24	1.12	1.12	C	E228329	132C15019X
	24-28	0.6	0.6			132C15029X


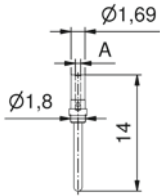
#### Socket contact

 	20-24	1.12	1.12	A	E228329	162A18709X
	24-28	0.64	0.64			162A18719X

## COMBINATION D-SUB CONNECTORS Contacts

### Signal contacts crimp

#### Plug contact

	AWG	Current rating [A]	$\varnothing A$ [mm]	Quality class	UL-File	Part No.
 	20-24	1.1	1.1	A	E228329	131A15019X
	24-28	0.65	0.65			131A15029X

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder cup, straight

Socket contact

Socket contact		AWG	Current rating [A]	Code use with part no. creator	Ø Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	41	18	C	E228329	132C10019X	
			61				A	132A10019X
	12-14	20	42	2.7	C		132C10029X	
			62		A		132A10029X	
	10-12	30	43	3.5	C		132C10039X	
			63		A		132A10039X	
	8-10	40	44	4.8	C		132C10049X	
			64		A		132A10049X	

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Plug contact

Plug contact		AWG	Current rating [A]	Code use with part no. creator	Ø Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	41	1.8	C	E228329	131C10019X	
			61				A	131A10019X
	12-14	20	42	2.7	C		131C10029X	
			62		A		131A10029X	
	10-12	30	43	3.5	C		131C10039X	
			63		A		131A10039X	
	8-10	40	44	4.8	C		131C10049X	
			64		A		131A10049X	

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder cup, straight

Plug contact, premating

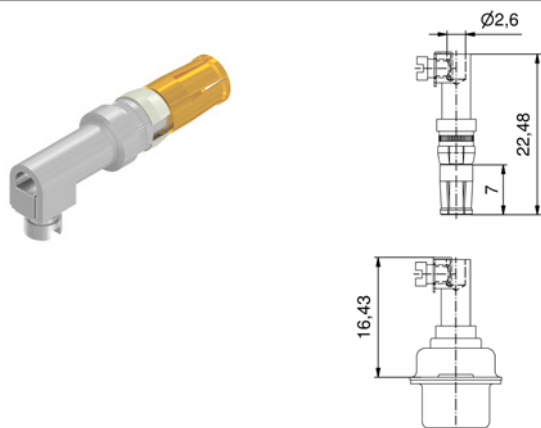
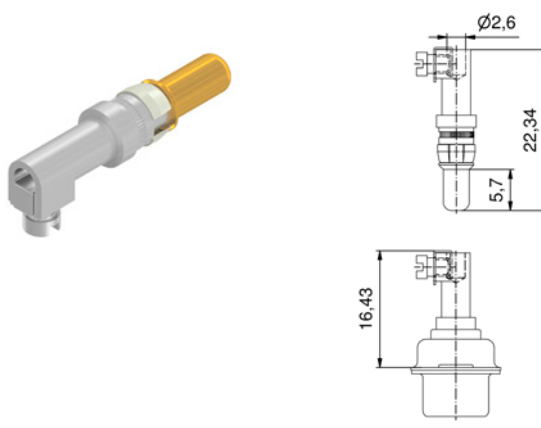
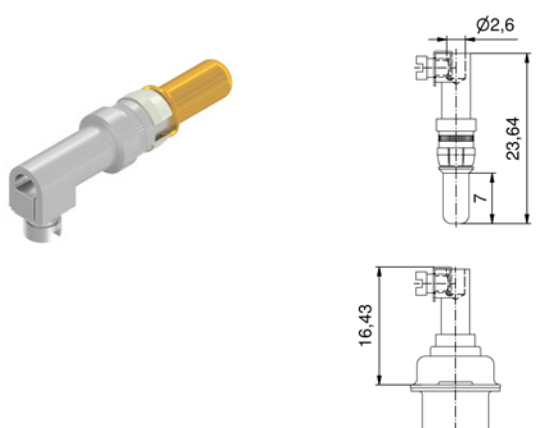
Plug contact, premating		AWG	Current rating [A]	Code use with part no. creator	Ø Termination A= [mm]	Quality class	UL-File	Part No.
	16-20	10	18	C	E228329	131C10119X		
			2.7			131C10129X		
	12-14	20	3.5			131C10139X		
			4.8			131C10149X		

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

## COMBINATION D-SUB CONNECTORS Contacts

### High power contacts Screw termination

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Socket contact	AWG	Current rating [A]	UL-File	Part No.				
	14	20	E228329	<table border="1"> <tr> <td data-bbox="1024 336 1098 560">C</td> <td data-bbox="1101 336 1503 560">132C36009X</td> </tr> <tr> <td data-bbox="1024 564 1098 784">A</td> <td data-bbox="1101 564 1503 784">132A36009X</td> </tr> </table>	C	132C36009X	A	132A36009X
C	132C36009X							
A	132A36009X							
<h3>Plug contact</h3> 	14	20	E228329	<table border="1"> <tr> <td data-bbox="1024 788 1098 1052">C</td> <td data-bbox="1101 788 1503 1052">131C36009X</td> </tr> <tr> <td data-bbox="1024 1057 1098 1276">A</td> <td data-bbox="1101 1057 1503 1276">131A36009X</td> </tr> </table>	C	131C36009X	A	131A36009X
C	131C36009X							
A	131A36009X							
<h3>Plug contact, premating</h3> 	14	20	E228329	<table border="1"> <tr> <td data-bbox="1024 1281 1098 1762">C</td> <td data-bbox="1101 1281 1503 1762">131C36109X</td> </tr> </table>	C	131C36109X		
C	131C36109X							

## COMBINATION D-SUB CONNECTORS Contacts

### High power contacts Crimp, straight

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

#### Socket contact

Socket contact		AWG	Current rating [A]	$\emptyset$ Termination A= [mm]	Quality class	UL-File	Part No.	
		16-20	10	1.7	C	E228329	132C11019X	
							A	132A11019X
							C	132C11029X
							A	132A11029X
							C	132C11039X
							A	132A11039X
							C	132C11049X
							A	132A11049X

#### Plug contact

		16-20	10	1.7	C	E228329	131C11019X	
							A	131A11019X
							C	131C11029X
							A	131A11029X
							C	131C11039X
							A	131A11039X
							C	131C11049X
							A	131A11049X

#### Plug contact, premating

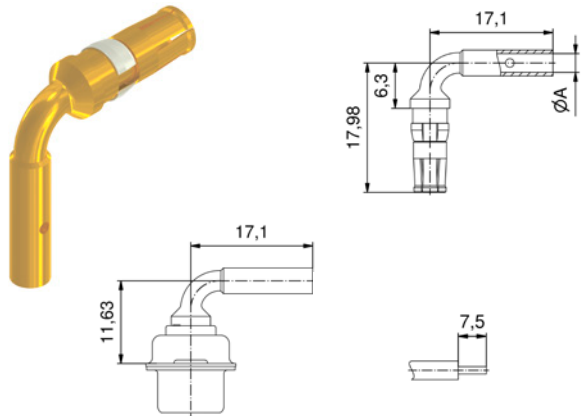
		16-20	10	1.7	C	E228329	131C11119X
							131C11129X
							131C11139X
							131C11149X



## COMBINATION D-SUB CONNECTORS Contacts

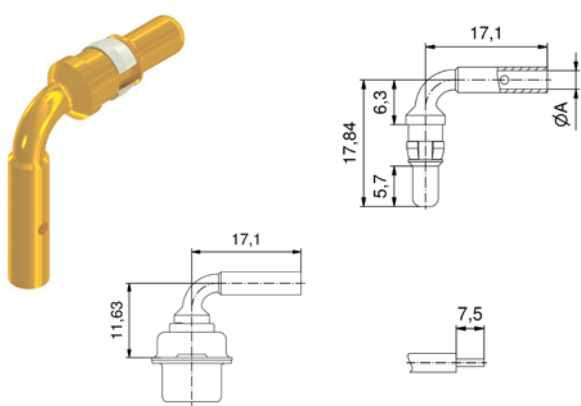
### High power contacts Crimp, angled

#### Socket contact



AWG	Current rating [A]	Ø Termination A= [mm]	Quality class	UL-File	Part No.
16-20	10	1.7	C	E228329	132C16019X
			A		132A16019X
12-14	20	2.6	C		132C16029X
			A		132A16029X
10-12	30	3.7	C		132C16039X
			A		132A16039X
8-10	40	4.6	C		132C16049X
			A		132A16049X

#### Plug contact

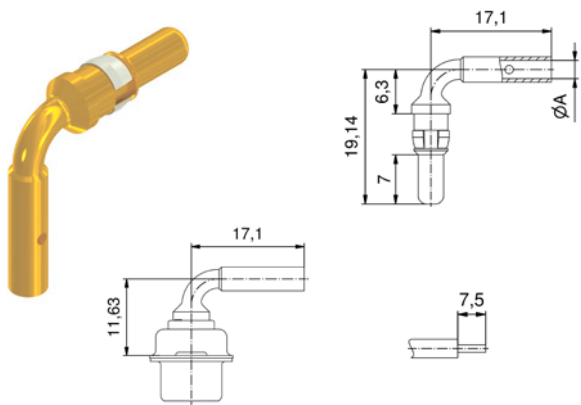


16-20	10	1.7	C	E228329	131C16019X
			A		131A16019X
12-14	20	2.6	C		131C16029X
			A		131A16029X
10-12	30	3.7	C		131C16039X
			A		131A16039X
8-10	40	4.6	C		131C16049X
			A		131A16049X

## COMBINATION D-SUB CONNECTORS Contacts

### High power contacts Crimp, angled

#### Plug contact, prematung



AWG	Current rating [A]	Ø Termination A= [mm]	Quality class	UL-File	Part No.
16-20	10	1.7	C	E228329	131C16119X
12-14	20	2.6			131C16129X
16-20	30	3.7			131C16139X
8-10	40	4.6			131C16149X

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

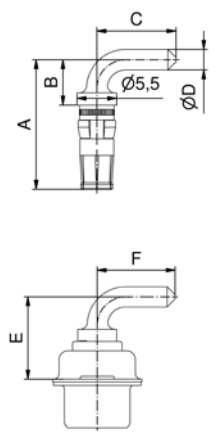
## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder pin, angled

Socket contact

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File	Part No.	
1-4	15	55	2.3	C	E228329	132C13009X	
		59		A		132A13009X	
	20	56	3.2	C		132C13019X	
		73		A		132A13019X	
	30	57	3.6	C		132C13029X	
		74		A		132A13029X	
	40	58	4.1	C		132C13039X	
		75		A		132A13039X	
	5	20	66	3.2		C	132C13060X
			81			A	132A13060X
		30	67	3.6		C	132C13070X
			82			A	132A13070X
65			C		132C13059X		
40		85	4.1	A	132A13059X		
		60		C	132C13049X		
		77		A	132A13049X		



Shellsize	Current rating [A]	Termination	A	B	C	D Ø	E	F
1-4	15	55/59	14.68	3.00	10.50	1.90	8.35	10.50
1-4	20	56/73	17.98	6.30	11.00	2.85	11.65	11.00
1-4	30	57/74	26.68	15.00	9.50	3.20	20.35	9.50
1-4	40	58/75	17.98	6.30	11.00	3.75	11.65	11.00
5	20	66/81	20.53	8.85	14.00	2.85	14.20	12.58
5	30	67/82	20.53	8.85	14.00	3.20	14.20	12.58
5	30	65/85	26.68	15.00	13.50	3.20	20.35	12.08
5	40	60/77	20.53	8.85	14.00	3.75	14.20	12.58

# COMBINATION D-SUB CONNECTORS Contacts

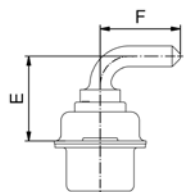
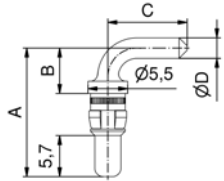
High power contacts  
Solder pin, angled

Plug contact

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File
1-4	15	55	23	C	E228329
		59		A	
	20	56	3.2	C	
		73		A	
	30	57	3.6	C	
		74		A	
40	58	4.1	C		
	75		A		
5	20	66	3.2	C	
		81		A	
	30	67	3.6	C	
		82		A	
		65		C	
		85		A	
	40	60	4.1	C	
		77		A	

Part No.
131C13009X
131A13009X
131C13019X
131A13019X
131C13029X
131A13029X
131C13039X
131A13039X
131C13060X
131A13060X
131C13070X
131A13070X
131C13059X
131A13059X
131C13049X
131A13049X



Shellsize	Current rating [A]	Termination	A	B	C	D Ø	E	F
1-4	15	55/59	14.54	3.00	10.50	1.90	8.35	10.50
1-4	20	56/73	17.84	6.30	11.00	2.85	11.65	11.00
1-4	30	57/74	26.54	15.00	9.50	3.20	20.35	9.50
1-4	40	58/75	17.84	6.30	11.00	3.75	11.65	11.00
5	20	66/81	20.39	8.85	14.00	2.85	14.20	12.58
5	30	67/82	20.39	8.85	14.00	3.20	14.20	12.58
5	30	65/85	26.54	15.00	13.50	3.20	20.35	12.08
5	40	60/77	20.39	8.85	14.00	3.75	14.20	12.58

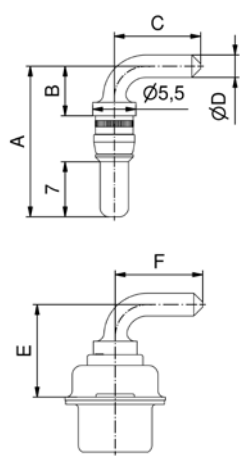
# COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder pin, angled

Plug contact, premating

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

Shell size	Current rating [A]	Hole diameter of PCB [mm]	Quality class	Part No.
14	15	23	C	131C13109X
	20	32		131C13119X
	30	36		131C13129X
	40	4.1		131C13139X
5	20	3.2		131C13160X
	30	3.6		131C13170X
	40	4.1		131C13159X
	40	4.1		131C13149X



Shellsize	Current rating [A]	A	B	C	D Ø	E	F
1-4	15	15.84	3.00	10.50	1.90	8.35	10.50
1-4	20	19.14	6.30	11.00	2.85	11.65	11.00
1-4	30	27.84	15.00	9.50	3.20	20.35	9.50
1-4	40	19.14	6.30	11.00	3.75	11.65	11.00
5	20	21.65	8.85	14.00	2.85	14.20	12.58
5	30	21.65	8.85	14.00	3.20	14.20	12.58
5	30	27.84	15.00	13.50	3.20	20.35	12.08
5	40	21.65	8.85	14.00	3.75	14.20	12.58

## COMBINATION D-SUB CONNECTORS Contacts

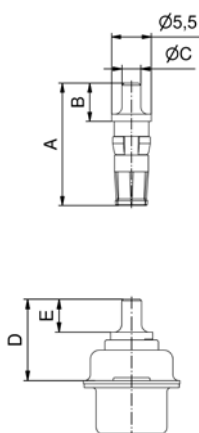
High power contacts  
Solder pin, straight

Quality class 3 (A) = 50 mating cycles  
Quality class 1 (C) = 500 mating cycles

### Socket contact

Shell size  
Current rating [A]  
Code use with part no. creator  
Hole diameter of PCB [mm]  
Quality class  
UL-File

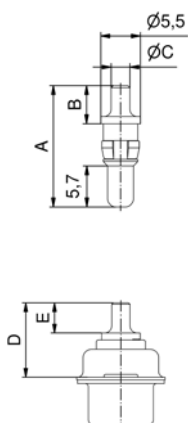
Part No.



Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File	Part No.
1-5	20	48	2.3	C	E228329	132C12019X
		68		A		132A12019X
	30	49	3	C		132C12029X
		69		A		132A12029X
	40	50	3.2	C		132C12039X
				70		A
		71	3.6	C		132C12049X
				72		A
	72	4.1	C	132C12059X		
			72	A		132A12059X

Current rating [A]	Termination	A	B	C Ø	D	E
20	48/68	15.98	4.60	1.95	9.65	3.80
20	49/69	16.98	5.30	2.60	10.65	4.30
20	50/70	16.38	4.70	2.85	10.05	3.70
30	51/71	19.18	7.50	3.18	12.85	6.70
40	52/72	17.43	5.75	3.75	11.10	4.75

### Plug contact



Shell size	Current rating [A]	Code use with part no. creator	Hole diameter of PCB [mm]	Quality class	UL-File	Part No.
1-5	20	48	2.3	C	E228329	131C12019X
		68		A		131A12019X
	30	49	3	C		131C12029X
		69		A		131A12029X
	40	50	3.2	C		131C12039X
				70		A
		71	3.6	C		131C12049X
				72		A
	72	4.1	C	131C12059X		
			72	A		131A12059X

Current rating [A]	Termination	A	B	C Ø	D	E
20	48/68	15.84	4.60	1.95	9.65	3.80
20	49/69	16.84	5.30	2.60	10.65	4.30
20	50/70	16.24	4.70	2.85	10.05	3.70
30	51/71	19.04	7.50	3.18	12.85	6.70
40	52/72	17.29	5.75	3.75	11.10	4.75

## COMBINATION D-SUB CONNECTORS Contacts

High power contacts  
Solder pin, straight

Plug contact, premating

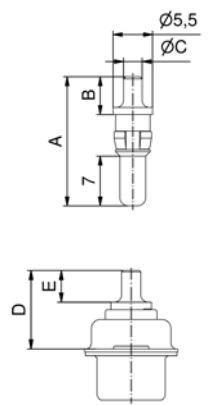
Quality class 1 (C) = 500 mating cycles  
On request:

- Quality class 3 (A) = 50 mating cycles

Shell size	Current rating [A]	Hole diameter of PCB [mm]	Quality class	Part No.
1-5	20	23	C	131C12119X
		30		131C12129X
		32		131C12139X
	30	131C12149X		
	40	131C12159X		

Current rating [A]	A	B	C Ø	D	E
20	17.14	4.60	1.95	9.65	3.80
20	18.14	5.30	2.60	10.65	4.30
20	17.54	4.70	2.85	10.05	3.70
30	20.34	7.50	3.18	12.85	6.70
40	18.59	5.75	3.75	11.10	4.75



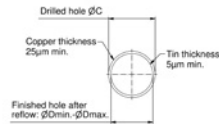
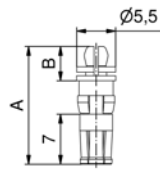
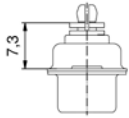


# COMBINATION D-SUB CONNECTORS Contacts

## High power contacts Press-fit version, straight

Quality class 1 (C) = 500 mating cycles  
On request:  
• Quality class 3 (A) = 50 mating cycles

### Socket contact



Shell size  
Current rating [A]  
Code use with part no. creator  
Hole diameter of PCB [mm]  
Quality class  
UL-File

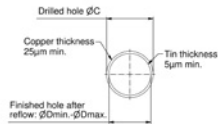
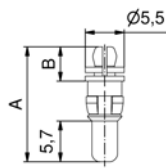
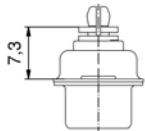
Part No.

1-5	30	P1	3.11	C	E228329
		P2	3.25		
		P4	3.2		

132C00229A
132C00299A
132C19019X

Current rating [A]	Termination	A	B	C $\varnothing \pm 0.03$	D min.	D max.
30	P1	16.48	4.80	3.13	2.96	3.11
30	P2	16.48	4.80	3.27	3.10	3.25
30	P3	16.08	4.40	3.22	3.02	3.20

### Plug contact



1-5	30	P1	3.11	C	E228329
		P2	3.25		
		P4	3.2		

131C00319A
131C00389A
131C19019X

Current rating [A]	Termination	A	B	C $\varnothing \pm 0.03$	D min.	D max.
30	P1	16.34	4.80	3.13	2.96	3.11
30	P2	16.34	4.80	3.27	3.10	3.25
30	P3	15.94	4.40	3.22	3.02	3.20

## COMBINATION D-SUB CONNECTORS Contacts

High voltage contacts  
Solder termination, straight

Quality class J  $\geq$  500 mating cycles

Socket contact

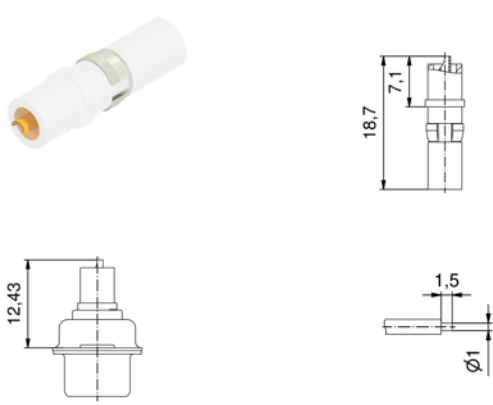
AWG

Working voltage max. [kV]

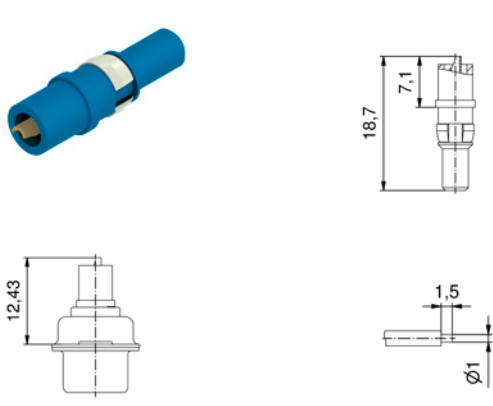
Quality class

UL-File

Part No.

	20	2.8	J	E228329	132J14019X
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Plug contact

	20	2.8	J	E228329	131J14019X
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## COMBINATION D-SUB CONNECTORS Contacts

High voltage contacts  
Solder termination, angled

Quality class J  $\geq$  500 mating cycles

Socket contact

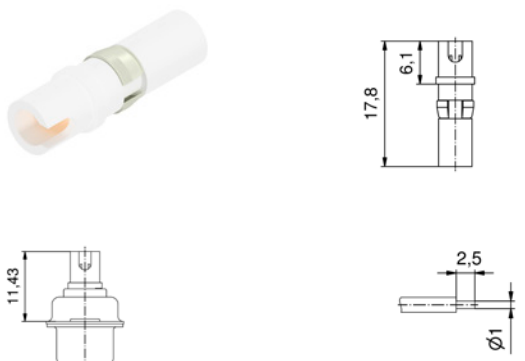
AWG

Working voltage max. [kV]

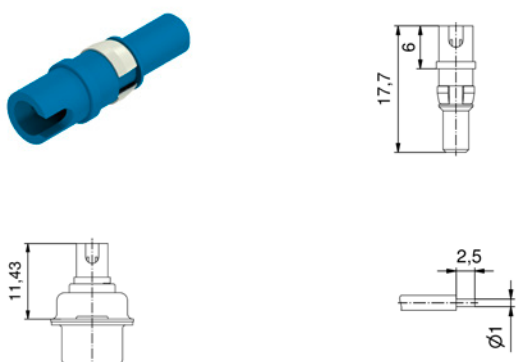
Quality class

UL-File

Part No.

 <p>Technical drawing of a socket contact showing dimensions: 17.8 (total length), 6.1 (contact length), 11.43 (width), 2.5 (width), and <math>\varnothing 1</math> (diameter).</p>	20	2.8	J	E228329	132J14519X
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Plug contact


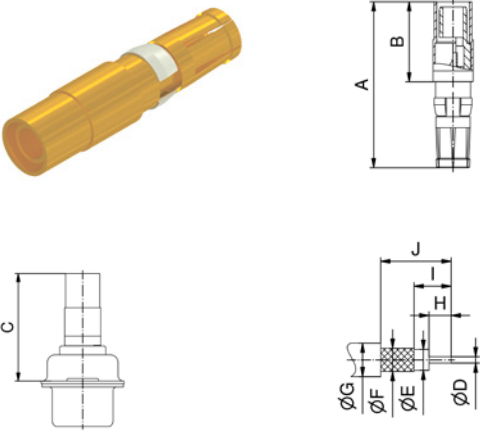
 <p>Technical drawing of a plug contact showing dimensions: 17.7 (total length), 6 (contact length), 11.43 (width), 2.5 (width), and <math>\varnothing 1</math> (diameter).</p>	20	2.8	J	E228329	131J14519X
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## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
Inner conductor solder-, outer conductor crimp-/solder termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles


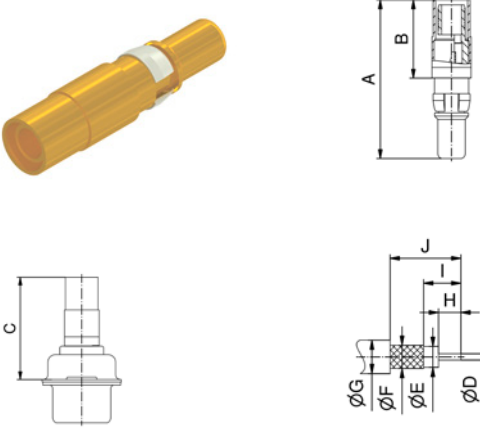
### Socket contact

		Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
 	50	178 B/U, 196 A/U, 404 /U	J	E228329		132J20019X
			A			132A20019X
		174 /U, 188 A/U, 316 /U	J			132J20029X
			A			132A20029X
		180 B/U	J			132J20039X
			A			132A20039X
		58 C/U, 141 A/U	J			132J20049X
			A			132A20049X
		316 /U double braided	J			132J20059X
			A			132A20059X
75	179 B/U, 187 A/U ( $\beta=7.3$ mm)	J	132J30019X			
		A	132A30019X			
	179 B/U, 187 A/U ( $\beta=11.2$ mm)	J	132J30029X			
		A	132A30029X			

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H	I	J
50	178BU, 196AU, 404 U	23.00	11.20	17.55	0.85	1.20	1.40	2.30	3.00	5.00	9.50
	174U, 188AU, 316U	23.00	11.20	17.55	0.85	1.90	2.30	3.20	3.00	5.00	9.50
	180BU	23.00	11.20	17.55	0.85	2.80	3.10	4.50	3.00	5.00	9.50
	58CU, 141AU	26.80	14.80	20.15	1.00	3.00	3.60	5.20	3.00	5.00	9.50
	316U double braided	24.00	12.20	17.55	0.85	1.90	2.70	3.20	3.00	5.00	9.50
75	179BU, 187AU	19.05	7.30	12.80	0.50	1.90	2.30	3.20	2.00	3.10	6.00
	179BU, 187AU	23.00	11.20	16.70	0.50	1.90	2.30	3.20	3.00	5.00	9.50

### Plug contact

		Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
 	50	178 B/U, 196 A/U, 404 /U	J	E228329		131J20019X
			A			131A20019X
		174 /U, 188 A/U, 316 /U	J			131J20029X
			A			131A20029X
		180 B/U	J			131J20039X
			A			131A20039X
		58 C/U, 141 A/U	J			131J20049X
			A			131A20049X
		316 /U double braided	J			131J20059X
			A			131A20059X
75	179 B/U, 187 A/U ( $\beta=7.3$ mm)	J	131J30019X			
		A	131A30019X			
	179 B/U, 187 A/U ( $\beta=11.2$ mm)	J	131J30029X			
		A	131A30029X			

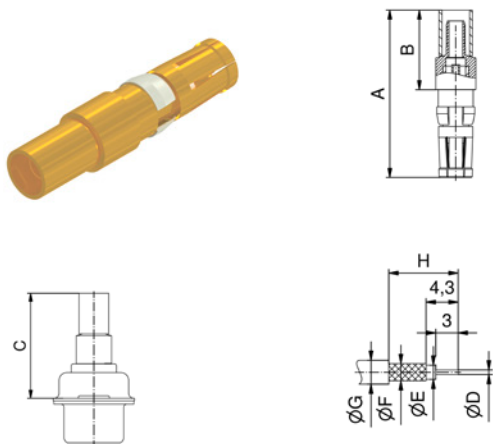
Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H	I	J
50	178BU, 196AU, 404 U	22.50	11.20	17.55	0.85	1.20	1.40	2.30	3.00	5.00	9.50
	174U, 188AU, 316U	22.50	11.20	17.55	0.85	1.90	2.30	3.20	3.00	5.00	9.50
	180BU	22.50	11.20	17.55	0.85	2.80	3.10	4.50	3.00	5.00	9.50
	58CU, 141AU	26.30	14.80	20.15	1.00	3.00	3.60	5.20	3.00	5.00	9.50
	316U double braided	23.50	12.20	17.55	0.85	1.90	2.70	3.20	3.00	5.00	9.50
75	179BU, 187AU	18.55	7.30	12.80	0.50	1.90	2.30	3.20	2.00	3.10	6.00
	179BU, 187AU	22.50	11.20	16.70	0.50	1.90	2.30	3.20	3.00	5.00	9.50

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
Inner and outer conductor crimp termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

### Socket contact



Impedance [ $\Omega$ ]

Cable

Quality class

UL-File

Part No.

50

174 /U,  
188 A/U,  
316 /U

J  
A

E228329

132J21019X

132A21019X

316 /U  
double braided

J  
A

132J21029X

132A21029X

58 C/U,  
141 A/U

J  
A

132J21039X

132A21039X

75

179 B/U,  
187 A/U

J  
A

132J31019X

132A31019X

180 B/U

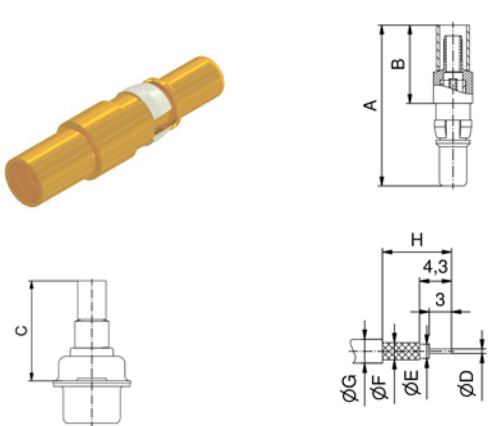
J  
A

132J31029X

132A31029X

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H
50	174U, 188AU, 316U	23.00	11.20	16.60	0.60	1.90	2.30	3.20	9.30
	316U double braided	23.00	11.20	16.60	0.60	1.90	3.00	3.80	9.30
	58CU, 141AU	22.70	10.90	16.30	1.30	3.70	4.30	5.20	9.30
75	179BU, 187AU	22.95	11.20	16.70	0.60	1.90	2.30	3.20	9.30
	180BU	22.15	10.40	15.90	0.60	2.80	4.50	4.50	8.80

### Plug contact



50

174 /U,  
188 A/U,  
316 /U

J  
A

E228329

131J21019X

131A21019X

316 /U  
double braided

J  
A

131J21029X

131A21029X

58 C/U,  
141 A/U

J  
A

131J21039X

131A21039X

75

179 B/U,  
187 A/U

J  
A

131J31019X

131A31019X

180 B/U

J  
A

131J31029X

131A31029X

Impedance $\Omega$	Usable Cable RG	A	B	C	D $\emptyset$	E $\emptyset$	F $\emptyset$	G $\emptyset$	H
50	174U, 188AU, 316U	22.50	11.20	16.60	0.60	1.90	2.30	3.20	9.30
	316U double braided	22.50	11.20	16.60	0.60	1.90	3.00	3.80	9.30
	58CU, 141AU	22.20	10.90	16.30	1.30	3.70	4.30	5.20	9.30
75	179BU, 187AU	22.45	11.20	16.70	0.60	1.90	2.30	3.20	9.30
	180BU	21.65	10.40	15.90	0.60	2.80	4.50	4.50	8.80

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, angled  
Inner conductor solder-, outer conductor crimp-/solder termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

### Socket contact


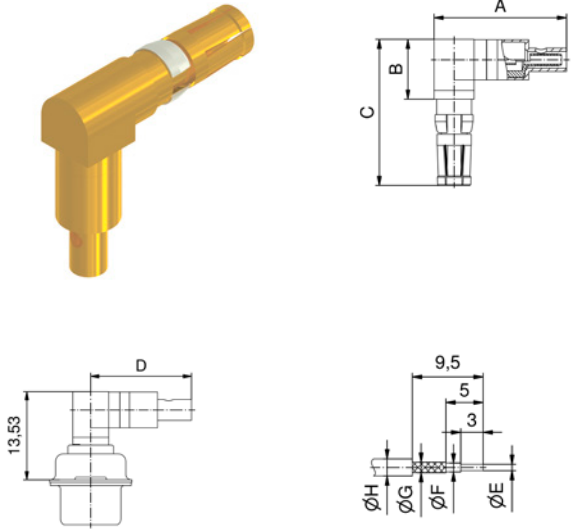
Impedance [ $\Omega$ ]

Cable

Quality class

UL-File

Part No.

 	50	174 /U, 188 A/U, 316 /U	J	132J22019X	
			A	132A22019X	
			178 B/U, 196 A/U, 404 /U	J	132J22029X
				A	132A22029X
			316 /U double braided	J	132J22039X
				A	132A22039X

Impedance $\Omega$	Usable Cable RG	A	B	C	D	E $\emptyset$	F $\emptyset$	G $\emptyset$	H $\emptyset$
50	174U, 188AU, 316U	18.50	8.20	19.80	15.70	0.85	1.90	2.30	3.20
	178BU, 196AU, 404U	18.50	8.20	19.80	15.70	0.85	1.20	1.40	2.30
	316U double braided	19.50	8.20	19.80	16.70	0.85	1.90	2.70	3.50

### Plug contact


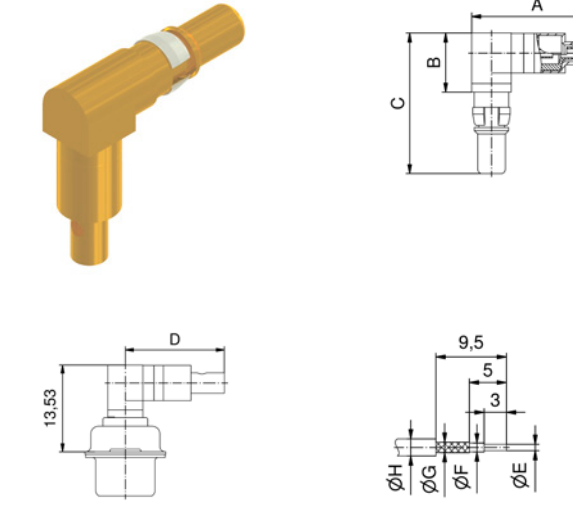
Impedance [ $\Omega$ ]

Cable

Quality class

UL-File

Part No.

 	50	174 /U, 188 A/U, 316 /U	J	131J22019X	
			A	131A22019X	
			178 B/U, 196 A/U, 404 /U	J	131J22029X
				A	131A22029X
			316 /U double braided	J	131J22039X
				A	131A22039X

Impedance $\Omega$	Usable Cable RG	A	B	C	D	E $\emptyset$	F $\emptyset$	G $\emptyset$	H $\emptyset$
50	174U, 188AU, 316U	18.50	8.20	19.30	15.70	0.85	1.90	2.30	3.20
	178BU, 196AU, 404U	18.50	8.20	19.30	15.70	0.85	1.20	1.40	2.30
	316U double braided	19.50	8.20	19.30	16.70	0.85	1.90	2.70	3.50



# COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, angled  
Inner and outer conductor crimp termination

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

## Socket contact

				Impedance [ $\Omega$ ]	Cable	Quality class	UL-File	Part No.
	50	174 /U, 188 A/U, 316 /U	J	E228329	132J23019X			
			A		132A23019X			
	75	179 B/U, 187 A/U	J	132J33019X				
			A	132A33019X				

## Plug contact

	50	174 /U, 188 A/U, 316 /U	J	E228329	131J23019X
			A		131A23019X
	75	179 B/U, 187 A/U	J	131J33019X	
			A	131A33019X	

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
PCB termination, 3 solder pins

Quality class J  $\geq$  500 mating cycles  
Quality class 3 (A) = 50 mating cycles

Socket contact

Impedance [ $\Omega$ ]	Shell size	Code use with part no. creator	Quality class	UL-File	Part No.
50	1-5	76	J	E228329	132J24019X
		G7	A		132A24019X
75	1-5	86	J		132J34019X
		G8	A		132A34019X

Plug contact

50	1-5	76	J	E228329	131J24019X
		G7	A		131A24019X
75	1-5	86	J		131J34019X
		G8	A		131A34019X

Coaxial contacts, angled  
PCB termination, 3 solder pins

Socket contact

50	1-4	78	J	E228329	132J25019X
		G9	A		132A25019X
75	1-4	88	J		132J35019X
		H2	A		132A35019X
50	5	79	J	E228329	132J25029X
		H1	A		132A25029X
75	5	89	J		132J35029X
		H3	A		132A35029X

Shellsize	A	B	C	D	E
1-4	13.80	9.30	21.20	11.00	9.30
5	16.80	11.80	23.70	14.00	11.80

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, angled  
PCB termination, 3 solder pins

Plug contact

Impedance [ $\Omega$ ]		Shell size	Code use with part no. creator	Quality class	UL-File	Part No.	
50	1-4	78	J	E228329		131J25019X	
		G9	A			131A25019X	
	5	79	J			131J25029X	
		H1	A			131A25029X	
	75	1-4	88			J	131J35019X
			H2			A	131A35019X
5		89	J	131J35029X			
		H3	A	131A35029X			

Shellsize	A	B	C	D	E
1-4	13.80	9.30	20.70	11.00	9.30
5	16.80	11.80	23.20	14.00	11.80

## COMBINATION D-SUB CONNECTORS Contacts

Coaxial contacts, straight  
PCB termination, 5 solder pins

Socket contact

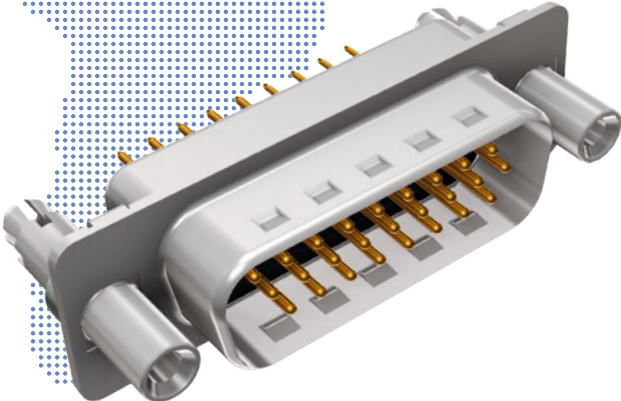
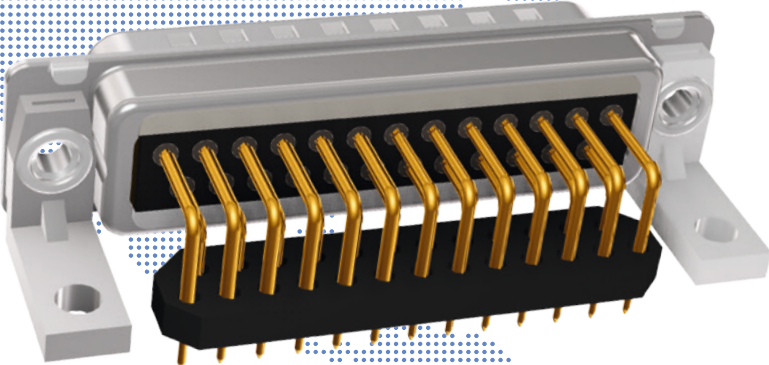
Impedance [ $\Omega$ ]		Shell size	Code use with part no. creator	Quality class	UL-File	Part No.
50	1-4	80	J	E228329		132J25519X
		H4	A			132A25519X
	75	90	J			132J35519X
		H5	A			132A35519X

Plug contact

Impedance [ $\Omega$ ]		Shell size	Code use with part no. creator	Quality class	UL-File	Part No.
50	1-4	80	J	E228329		131J25519X
		H4	A			131A25519X
	75	90	J			131J35519X
		H5	A			131A35519X

SECTION 3

# FILTER D-SUB CONNECTORS







## FILTER D-SUB CONNECTORS

### Product specification

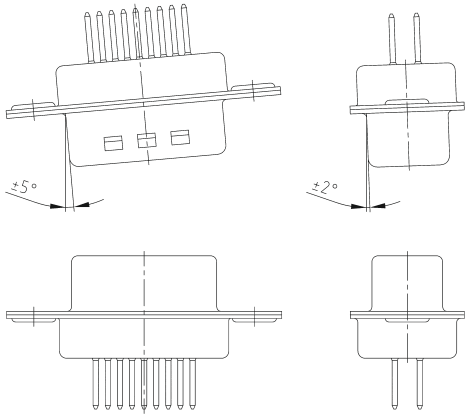
Basic material	Filter D-SUB Standard 9-, 15-, 25-, 37-, 50-position	Filter D-SUB High Density 15-, 25-, 44-, 62-, 78-position		
Contacts	Copper alloy			
Contact plating	Gold over nickel			
Insulator	PBT GF UL 94 V-0			
Shell	Steel tin plated (on request: brass tin plated)			
Technical data				
Dielectric with standing voltage	<ul style="list-style-type: none"> <li>• Standard 424 VDC</li> <li>• Standard (T-Filter) 300 VDC</li> <li>• High DWV 707 VDC</li> <li>• Ultra high DWV 1500 VDC *</li> <li>• Ultra high DWV (T-Filter) 1000 VDC * <small>*on request</small></li> </ul>	<ul style="list-style-type: none"> <li>• Standard 300 VDC</li> </ul>		
Working voltage	<ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> <li>• High DWV 100 VDC*</li> <li>• Ultra high DWV 200 VDC*</li> </ul>	<ul style="list-style-type: none"> <li>• Standard 100 VDC*</li> </ul>		
<small>*Depending on isolation coordination (refer to DIN VDE 0110/IEC 664-1)</small>				
Voltage surge 10/700 $\mu$ s	<ul style="list-style-type: none"> <li>• Standard 300 V</li> <li>• High Voltage 500 V</li> </ul>	<ul style="list-style-type: none"> <li>• Standard 300 V</li> </ul>		
Current rating	7.5 A (UL) / 5 A (CSA,VDE)	3 A (UL,VDE) 2.5 A (CSA)		
Contact resistance	max. 10 m $\Omega$ vor Beanspruchung, $\Delta$ R max. 10 m $\Omega$ nach Beanspruchung refer to IEC 60807-2			
Insulation resistance	$\geq 1G\Omega$			
Capacitor values	370 pF $\pm$ 20 % tolerance 830 pF $\pm$ 20 % tolerance 1300 pF $\pm$ 20 % tolerance <small>other capacitor values on request</small>	370 pF $\pm$ 20 % tolerance 830 pF $\pm$ 20 % tolerance		
Operating temperature	-25 °C to +105 °C	-25 °C to +85 °C		
Humidity	40 °C / 85 % relative humidity/RH			
Mating and unmating forces	9-pos. $\leq$ 30 N 15-pos. $\leq$ 50 N 25-pos. $\leq$ 83 N 37-pos. $\leq$ 123 N 50-pos. $\leq$ 167 N	15-pos. $\leq$ 50 N 26-pos. $\leq$ 83 N 44-pos. $\leq$ 110 N 62-pos. $\leq$ 170 N 78-pos. $\leq$ 200 N		
Quality class	A= Quality class 3 = 50 mating cycles, B = Quality class 2 = 200 mating cycles, C = Quality class 1 = 500 mating cycles			
Solder parameter	Preheating		Solder terminal dipping parameters	
	max. temperature	Duration	max. Solder bath temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	100 °C	30 s	260 °C	5 s

Technical specifications are subject to change without notice.

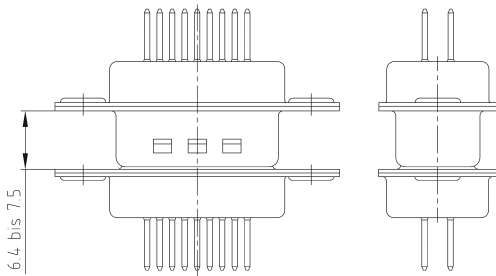
## FILTER D-SUB CONNECTORS

### Mating conditions

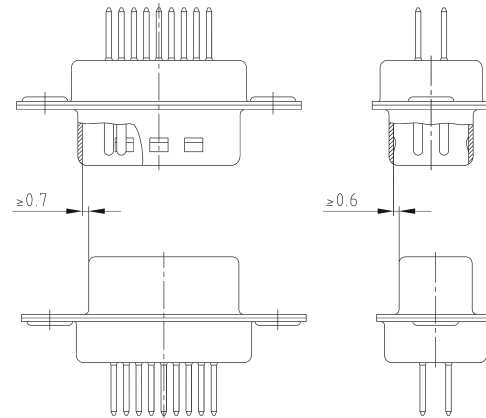
#### Max. tilt angle for connector mating



#### Range for safe contact

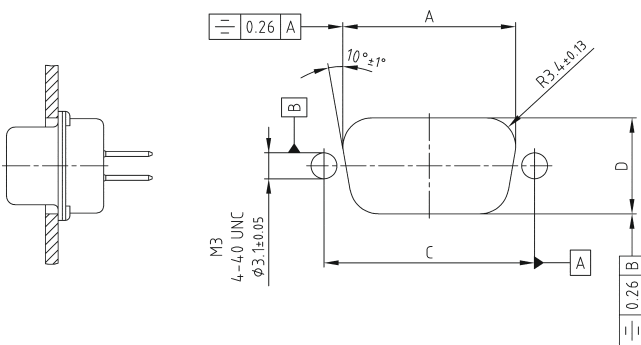


#### Lock-in range

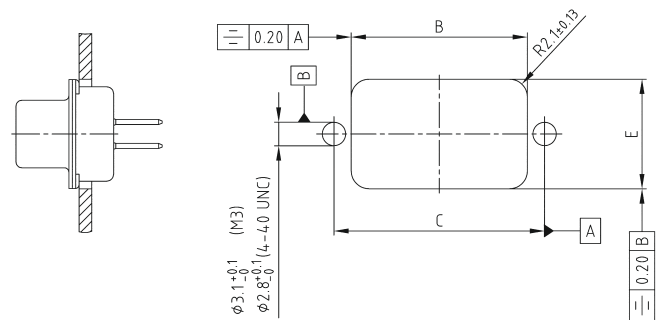


### Panel cut-out

#### Back panel mounting



#### Front panel mounting



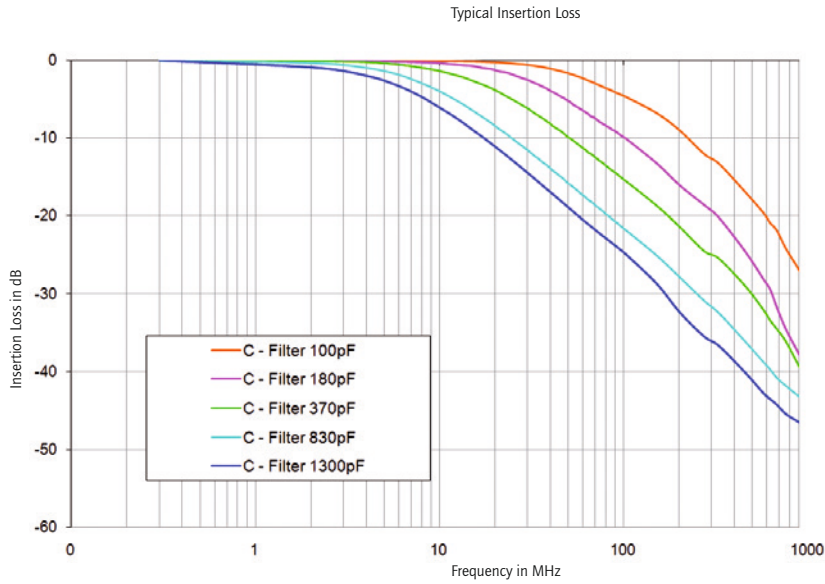
Shell size	No. of poles	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	9 15	20.50	22.20	25.00	11.40	13.00
2	15 26	28.80	30.50	33.30	11.40	13.00
3	25 44	42.50	44.30	47.04	11.40	13.00
4	37 62	59.10	60.70	63.50	11.40	13.00
5	50 78	56.30	58.30	61.10	14.10	15.80

Technical specifications are subject to change without notice.

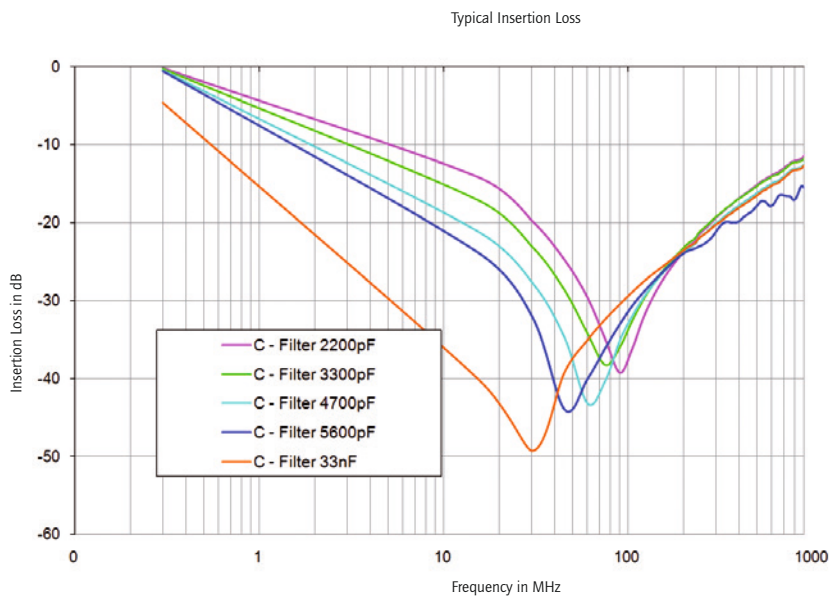


Insertion loss

C-Filter with planar filter technology



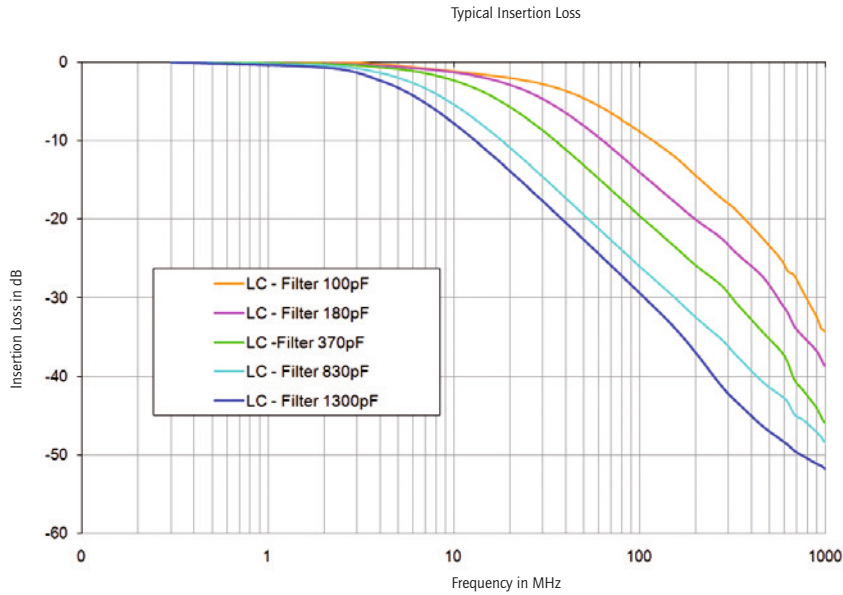
C-Filter with chip technology



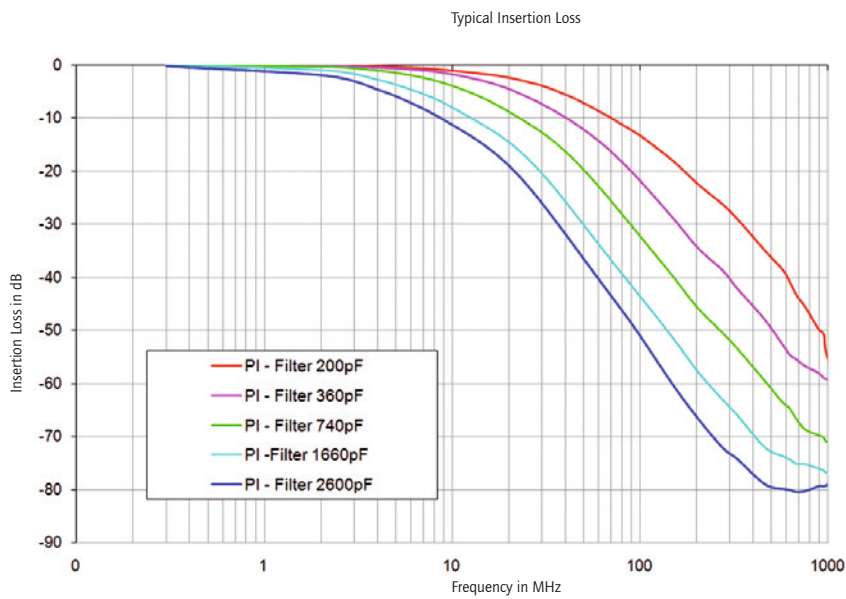
Technical specifications are subject to change without notice.

Insertion loss

LC-Filter with planar filter technology



$\pi$ -Filter with planar filter technology



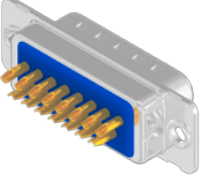
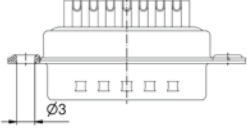
Technical specifications are subject to change without notice.

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

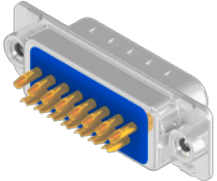
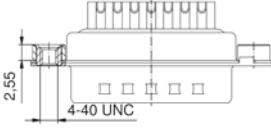
Solder cup  
Precision machined contacts, AWG 20

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole Ø 3 mm

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	370	242A26780X	241A26880X	
	15						242A26790X	241A26890X	
	25						242A26800X	241A26900X	
	37						242A26810X	241A26910X	
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	830	242A26820X	241A26920X	
	15						242A26830X	241A26930X	
	25						242A26840X	241A26940X	
	37						242A26850X	241A26950X	
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	1300	242A26860X	241A26960X	
	15						242A26870X	241A26970X	
	25						242A26880X	241A26980X	
	37						242A26890X	241A26990X	

4-40 UNC threaded insert

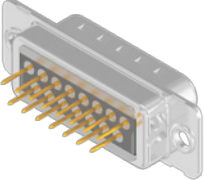
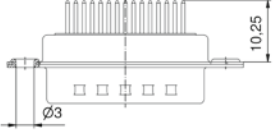
 	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	370	242A26940X	241A27040X
	15						242A26950X	241A27050X
	25						242A26960X	241A27060X
	37						242A26970X	241A27070X
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	830	242A26980X	241A27080X
	15						242A26990X	241A27090X
	25						242A27000X	241A27100X
	37						242A27010X	241A27110X
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	1300	242A27020X	241A27120X
	15						242A27030X	241A27130X
	25						242A27040X	241A27140X
	37						242A27050X	241A27150X

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

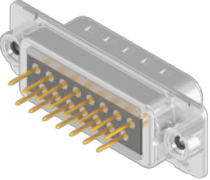
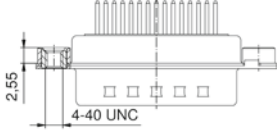
Solder pin, straight  
Precision machined contacts

Through-hole Ø 3 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A10010X	241A10010X	
	15						242A10020X	241A10020X	
	25						242A10030X	241A10030X	
	37						242A10040X	241A10040X	
	50						242A15580X	241A15690X	
	09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A10090X	241A10090X	
	15						242A10100X	241A10100X	
	25						242A10110X	241A10110X	
	37						242A10120X	241A10120X	
	50						242A15600X	241A15710X	
	09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A10050X	241A10050X	
	15						242A10060X	241A10060X	
	25						242A10070X	241A10070X	
	37						242A10080X	241A10080X	
	50						242A15590X	241A15700X	

4-40 UNC threaded insert

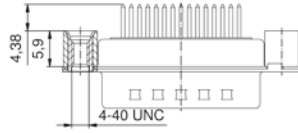
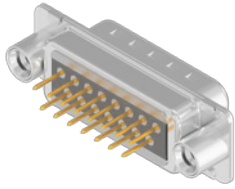
 	09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A10130X	241A10130X
	15						242A10140X	241A10140X
	25						242A10150X	241A10150X
	37						242A10160X	241A10160X
	50						242A15610X	241A15720X
	09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A10210X	241A10210X
	15						242A10220X	241A10220X
	25						242A10230X	241A10230X
	37						242A10240X	241A10240X
	50						242A15630X	241A15740X
	09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A10170X	241A10170X
	15						242A10180X	241A10180X
	25						242A10190X	241A10190X
	37						242A10200X	241A10200X
	50						242A15620X	241A15730X

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, straight  
Precision machined contacts

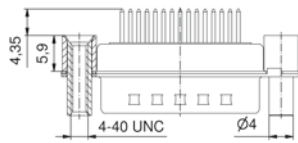
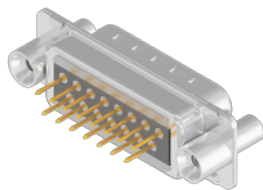
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A10370X	241A10370X
15						242A10380X	241A10380X
25						242A10390X	241A10390X
37						242A10400X	241A10400X
50						242A15670X	241A15780X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A10450X	241A10450X
15						242A10460X	241A10460X
25						242A10470X	241A10470X
37						242A10480X	241A10480X
50						242A15690X	241A15800X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A10410X	241A10410X
15						242A10420X	241A10420X
25						242A10430X	241A10430X
37						242A10440X	241A10440X
50						242A15680X	241A15790X

4-40 UNC front, threaded rear spacer



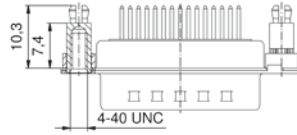
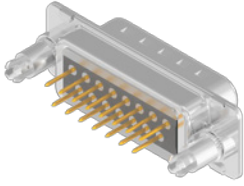
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A10610X	241A10610X
15						242A10620X	241A10620X
25						242A10630X	241A10630X
37						242A10640X	241A10640X
50						242A15730X	241A15840X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A10690X	241A10690X
15						242A10700X	241A10700X
25						242A10710X	241A10710X
37						242A10720X	241A10720X
50						242A15750X	241A15860X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A10650X	241A10650X
15						242A10660X	241A10660X
25						242A10670X	241A10670X
37						242A10680X	241A10680X
50						242A15740X	241A15850X

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, straight  
Precision machined contacts

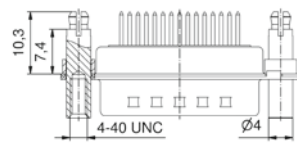
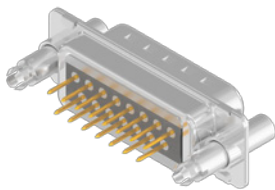
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 1.6 mm



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A14980X	241A15090X
15						242A14990X	241A15100X
25						242A15000X	241A15110X
37						242A15010X	241A15120X
50						242A15020X	241A15130X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A15080X	241A15190X
15						242A15090X	241A15200X
25						242A15100X	241A15210X
37						242A15110X	241A15220X
50						242A15120X	241A15230X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A15030X	241A15140X
15						242A15040X	241A15150X
25						242A15050X	241A15160X
37						242A15060X	241A15170X
50						242A15070X	241A15180X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A15280X	241A15390X
15						242A15290X	241A15400X
25						242A15300X	241A15410X
37						242A15310X	241A15420X
50						242A15320X	241A15430X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A15380X	241A15490X
15						242A15390X	241A15500X
25						242A15400X	241A15510X
37						242A15410X	241A15520X
50						242A15420X	241A15530X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A15330X	241A15440X
15						242A15340X	241A15450X
25						242A15350X	241A15460X
37						242A15360X	241A15470X
50						242A15370X	241A15480X

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, metal bracket

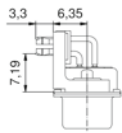
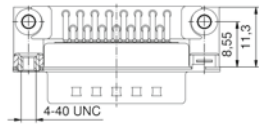
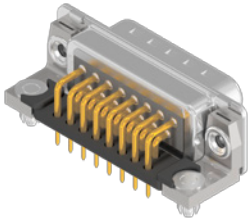
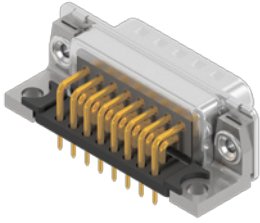
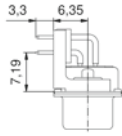
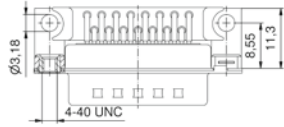
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	370	242A12340X	241A12320X
15						242A12350X	241A12330X
25						242A12360X	241A12340X
37						242A12370X	241A12350X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	830	242A12420X	241A12400X
15						242A12430X	241A12410X
25						242A12440X	241A12420X
37						242A12450X	241A12430X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	1300	242A12380X	241A12360X
15						242A12390X	241A12370X
25						242A12400X	241A12380X
37						242A12410X	241A12390X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

09	75 (UII) / 5 (CSA VDE)	100	E202784	3	370	242A17740X	241A16140X
15						242A17750X	241A16150X
25						242A17760X	241A16160X
37						242A17770X	241A16170X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	830	242A17700X	241A16100X
15						242A17710X	241A16110X
25						242A17720X	241A16120X
37						242A17730X	241A16130X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	1300	242A17660X	241A16060X
15						242A17670X	241A16070X
25						242A17680X	241A16080X
37						242A17690X	241A16090X





**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Grounding strap, through-hole Ø 3.4 mm

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	242A10970X	241A10970X
15						242A10980X	241A10980X
25						242A10990X	241A10990X
37						242A11000X	241A11000X
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	242A11050X	241A11050X
15						242A11060X	241A11060X
25						242A11070X	241A11070X
37						242A11080X	241A11080X
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	242A11010X	241A11010X
15						242A11020X	241A11020X
25						242A11030X	241A11030X
37						242A11040X	241A11040X

Grounding strap, 4-40 UNC threaded insert

09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	242A11090X	241A11090X
15						242A11100X	241A11100X
25						242A11110X	241A11110X
37						242A11120X	241A11120X
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	242A11170X	241A11170X
15						242A11180X	241A11180X
25						242A11190X	241A11190X
37						242A11200X	241A11200X
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	242A11130X	241A11130X
15						242A11140X	241A11140X
25						242A11150X	241A11150X
37						242A11160X	241A11160X

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, plastic bracket

Clip for PCB 1.6 mm, through-hole Ø 3.4 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A12700X	241A12680X
15						242A12710X	241A12690X
25						242A12720X	241A12700X
37						242A12730X	241A12710X
50						242A23990X	241A24090X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A12780X	241A12760X
15						242A12790X	241A12770X
25						242A12800X	241A12780X
37						242A12810X	241A12790X
50						242A24000X	241A24100X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A12740X	241A12720X
15						242A12750X	241A12730X
25						242A12760X	241A12740X
37						242A12770X	241A12750X
50						242A24010X	241A24110X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

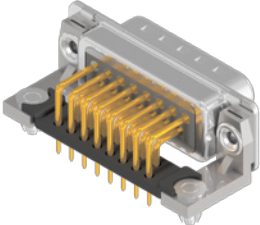
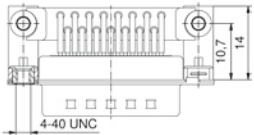
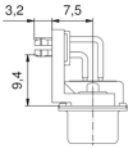
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A12820X	241A12800X
15						242A12830X	241A12810X
25						242A12840X	241A12820X
37						242A12850X	241A12830X
50						242A24030X	241A24130X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A12900X	241A12880X
15						242A12910X	241A12890X
25						242A12920X	241A12900X
37						242A12930X	241A12910X
50						242A24040X	241A24140X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A12860X	241A12840X
15						242A12870X	241A12850X
25						242A12880X	241A12860X
37						242A12890X	241A12870X
50						242A24050X	241A24150X

**FILTER D-SUB CONNECTORS**  
C-Filter Standard

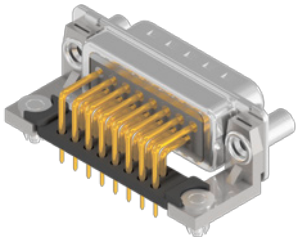
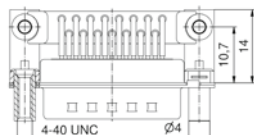
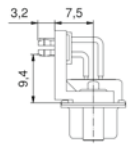
Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
		09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A21450X	241A21600X
		15						242A21460X	241A21610X
		25						242A21470X	241A21620X
		37						242A21480X	241A21630X
		50						242A27230X	241A27330X
		09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A21490X	241A21640X
		15						242A21500X	241A21650X
		25						242A21510X	241A21660X
		37						242A21520X	241A21670X
		50						242A27240X	241A27340X
		09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A21530X	241A21680X
		15						242A21540X	241A21690X
		25						242A21550X	241A21700X
		37						242A21560X	241A21710X
		50						242A27250X	241A27350X

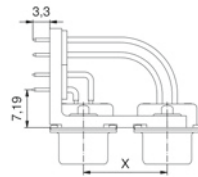
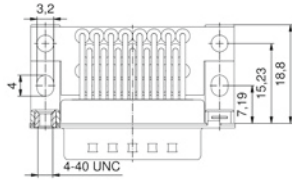
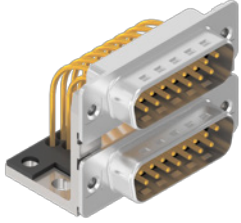
Clip for PCB 1.6 mm, 4-40 UNC front spacer

		09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	242A22440X	241A22540X
		15						242A22450X	241A22550X
		25						242A22460X	241A22560X
		37						242A22470X	241A22570X
		50						242A27310X	241A27410X
		09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	242A22480X	241A22580X
		15						242A22490X	241A22590X
		25						242A22500X	241A22600X
		37						242A22510X	241A22610X
		50						242A27320X	241A27420X
		09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	242A22520X	241A22620X
		15						242A22530X	241A22630X
		25						242A22540X	241A22640X
		37						242A22550X	241A22650X
		50						242A27330X	241A27430X

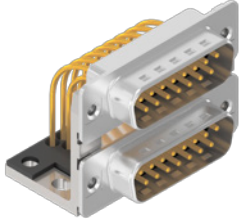
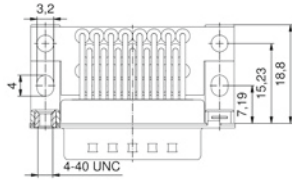
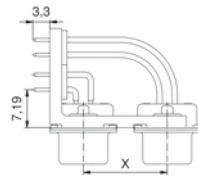
**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Plug upper - Plug bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert



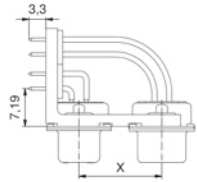
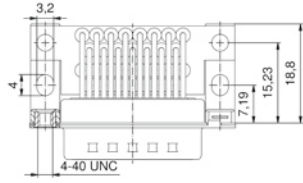
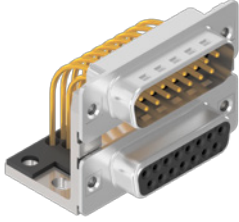
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.
  	09/09	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14130X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14140X
	25/25	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14150X
	37/37	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14160X
	09/09	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14210X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14220X
	25/25	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14230X
	37/37	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14240X
	09/09	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14170X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14180X
	25/25	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14190X
	37/37	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14200X
	09/09	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14610X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14620X
	25/25	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14630X
	37/37	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14640X
	09/09	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14690X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14700X
	25/25	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14710X
	37/37	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14720X
	09/09	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14650X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14660X
	25/25	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14670X
	37/37	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14680X

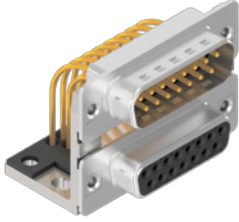
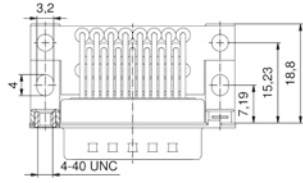
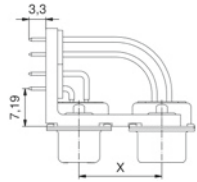
**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Plug upper - Socket bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert



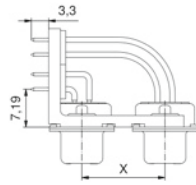
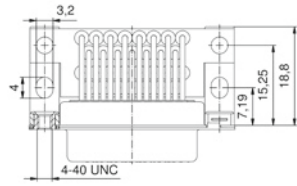
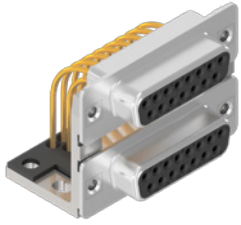
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.
  	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14250X
	25/25	25	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14260X
	37/37	37	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14270X
	09/09	9	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	241A14280X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14330X
	25/25	25	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14340X
	37/37	37	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14350X
	09/09	9	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	241A14360X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14290X
	25/25	25	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14300X
	37/37	37	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14310X
	09/09	9	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	241A14320X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14730X
	25/25	25	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14740X
	37/37	37	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14750X
	09/09	9	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	241A14760X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14810X
	25/25	25	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14820X
	37/37	37	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14830X
	09/09	9	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	241A14840X
	15/15	15	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14770X
	25/25	25	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14780X
	37/37	37	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14790X
	09/09	9	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	241A14800X

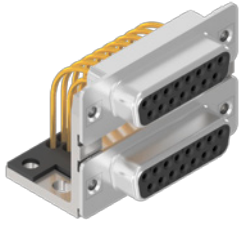
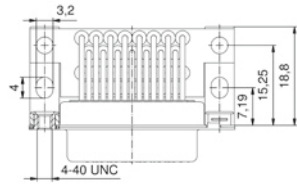
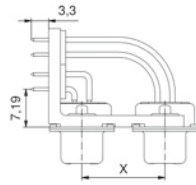
**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Socket upper - Socket bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert



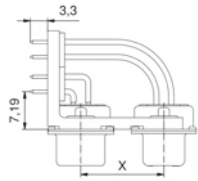
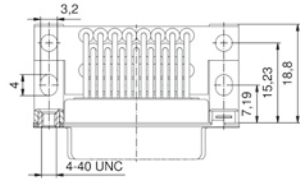
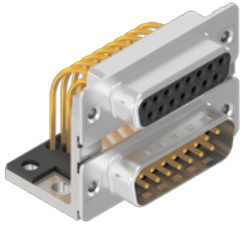
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.				
  	37/37	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14020X			
	15/15	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14030X		
	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14040X	
	37/37	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14050X
	15/15	09/09	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14100X		
	15/15	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14110X		
	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14120X	
	37/37	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14130X
	15/15	09/09	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14060X		
	15/15	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14070X		
	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14080X	
	37/37	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14090X
	15/15	09/09	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14500X		
	15/15	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14510X		
	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14520X	
	37/37	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14530X
	15/15	09/09	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14580X		
	15/15	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14590X		
	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14600X	
	37/37	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14610X
15/15	09/09	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14540X			
15/15	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14550X			
25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14560X		
37/37	25/25	37/37	25/25	15/15	09/09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14570X	

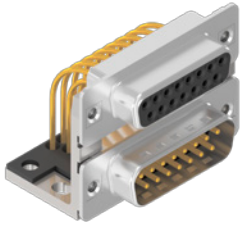
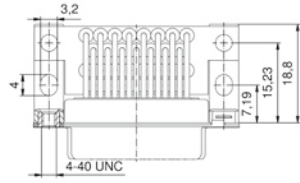
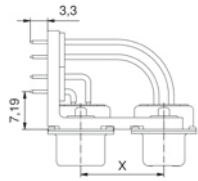
**FILTER D-SUB CONNECTORS**  
C-Filter Dual Port

Socket upper - Plug bottom  
Solder pin, angled, precision machined contacts

4-40 UNC threaded insert



Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Connector spacing X = [inches, mm]	Part No.		
  	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14140X		
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14150X		
	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14160X	
	37/37	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.625, 15.88	242A14170X
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14220X		
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14230X		
	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14240X	
	37/37	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.625, 15.88	242A14250X
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14180X		
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14190X		
	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14200X	
	37/37	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.625, 15.88	242A14210X
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14620X		
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14630X		
	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14640X	
	37/37	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	.750, 19.05	242A14650X
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14700X		
	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14710X		
	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14720X	
	37/37	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	.750, 19.05	242A14730X
15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14660X			
15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14670X			
25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14680X		
37/37	25/25	15/15	09/09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	.750, 19.05	242A14690X	

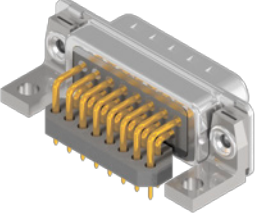
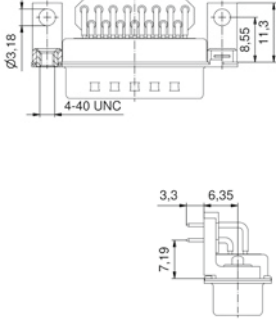
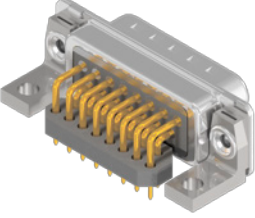
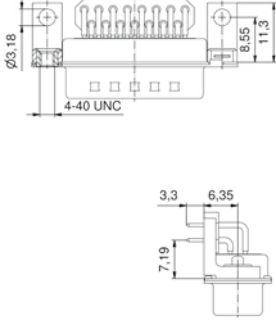
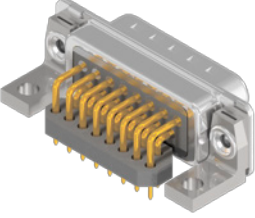
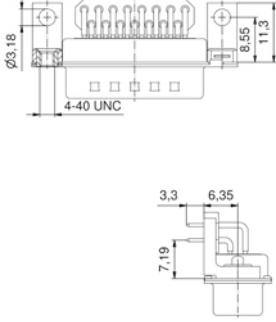


**FILTER D-SUB CONNECTORS**  
LC-Filter Standard

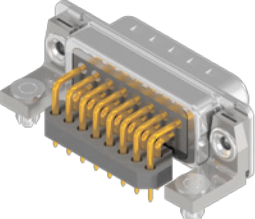
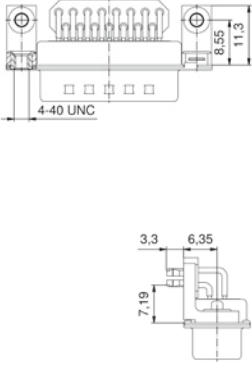
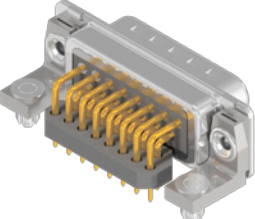
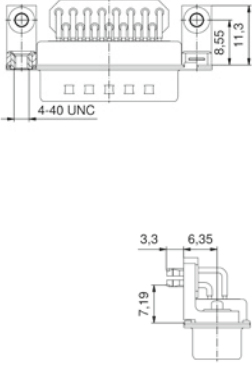
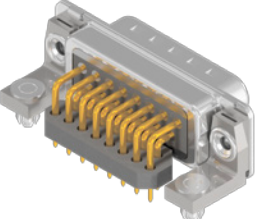
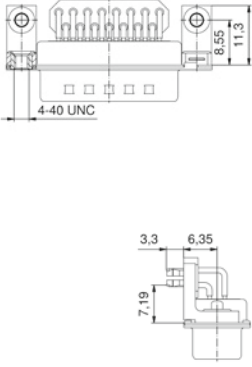
Solder pin, angled, .318"/7.19 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	09	100	E202784	3	370	242A24700X	241A24800X
	15					242A24710X	241A24810X
	25					242A24720X	241A24820X
	37					242A24730X	241A24830X
 	09	100	E202784	3	830	242A24740X	241A24840X
	15					242A24750X	241A24850X
	25					242A24760X	241A24860X
	37					242A24770X	241A24870X
 	09	100	E202784	3	1300	242A24780X	241A24880X
	15					242A24790X	241A24890X
	25					242A24800X	241A24900X
	37					242A24810X	241A24910X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	09	100	E202784	3	370	242A24860X	241A24960X
	15					242A24870X	241A24970X
	25					242A24880X	241A24980X
	37					242A24890X	241A24990X
 	09	100	E202784	3	830	242A24900X	241A25000X
	15					242A24910X	241A25010X
	25					242A24920X	241A25020X
	37					242A24930X	241A25030X
 	09	100	E202784	3	1300	242A24940X	241A25040X
	15					242A24950X	241A25050X
	25					242A24960X	241A25060X
	37					242A24970X	241A25070X

**FILTER D-SUB CONNECTORS**  
LC-Filter Standard

Solder pin, angled, .370" / 9.4 mm  
Precision machined contacts, metal bracket

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	242A25020X	241A25120X
15						242A25030X	241A25130X
25						242A25040X	241A25140X
37						242A25050X	241A25150X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	242A25060X	241A25160X
15						242A25070X	241A25170X
25						242A25080X	241A25180X
37						242A25090X	241A25190X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	242A25100X	241A25200X
15						242A25110X	241A25210X
25						242A25120X	241A25220X
37						242A25130X	241A25230X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

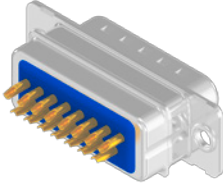
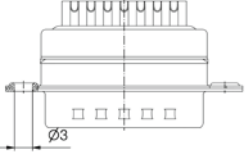
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	242A25340X	241A25440X
15						242A25350X	241A25450X
25						242A25360X	241A25460X
37						242A25370X	241A25470X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	242A25380X	241A25480X
15						242A25390X	241A25490X
25						242A25400X	241A25500X
37						242A25410X	241A25510X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	242A25420X	241A25520X
15						242A25430X	241A25530X
25						242A25440X	241A25540X
37						242A25450X	241A25550X

**FILTER D-SUB CONNECTORS**  
π-Filter Standard

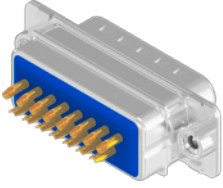
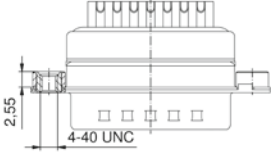
Solder cup  
Precision machined contacts, AWG 20

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole Ø 3 mm

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	2x 370	242A29020X	241A29120X	
	15						242A29030X	241A29130X	
	25						242A29040X	241A29140X	
	37						242A29050X	241A29150X	
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	2x 830	242A29060X	241A29160X	
	15						242A29070X	241A29170X	
	25						242A29080X	241A29180X	
	37						242A29090X	241A29190X	
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	2x 1300	242A29100X	241A29200X	
	15						242A29110X	241A29210X	
	25						242A29120X	241A29220X	
	37						242A29130X	241A29230X	

4-40 UNC threaded insert

 	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	2x 370	242A29180X	241A29280X
	15						242A29190X	241A29290X
	25						242A29200X	241A29300X
	37						242A29210X	241A29310X
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	2x 830	242A29220X	241A29320X
	15						242A29230X	241A29330X
	25						242A29240X	241A29340X
	37						242A29250X	241A29350X
	09	75 (UII) / 5 (CSA, VDE)	100	E202784	3	2x 1300	242A29260X	241A29360X
	15						242A29270X	241A29370X
	25						242A29280X	241A29380X
	37						242A29290X	241A29390X

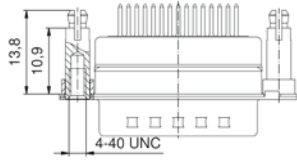
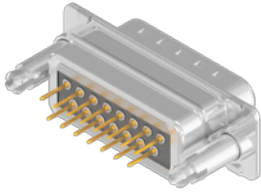
**FILTER D-SUB CONNECTORS**  
π-Filter Standard

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 370	242A26300X	241A26400X
15						242A26310X	241A26410X
25						242A26320X	241A26420X
37						242A26330X	241A26430X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 830	242A26340X	241A26440X
15						242A26350X	241A26450X
25						242A26360X	241A26460X
37						242A26370X	241A26470X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 1300	242A26380X	241A26480X
15						242A26390X	241A26490X
25						242A26400X	241A26500X
37						242A26410X	241A26510X



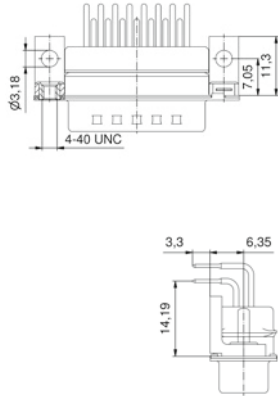
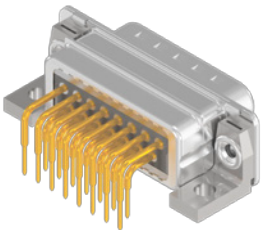
**FILTER D-SUB CONNECTORS**  
π-Filter Standard

Solder pin, angled, .590" / 14.19 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

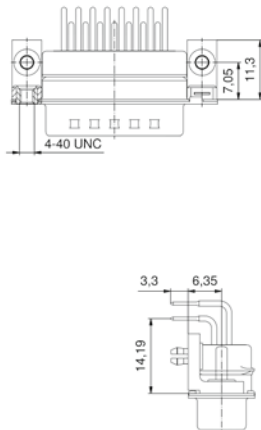
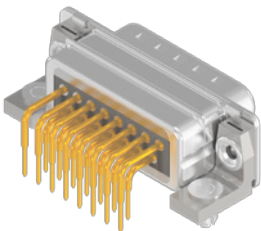
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 370	242A25980X	241A26080X
15						242A25990X	241A26090X
25						242A26000X	241A26100X
37						242A26010X	241A26110X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 830	242A26020X	241A26120X
15						242A26030X	241A26130X
25						242A26040X	241A26140X
37						242A26050X	241A26150X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 1300	242A26060X	241A26160X
15						242A26070X	241A26170X
25						242A26080X	241A26180X
37						242A26090X	241A26190X



Clip for PCB 1.6 mm, 4-40 UNC threaded insert

09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 370	242A26140X	241A26240X
15						242A26150X	241A26250X
25						242A26160X	241A26260X
37						242A26170X	241A26270X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 830	242A26180X	241A26280X
15						242A26190X	241A26290X
25						242A26200X	241A26300X
37						242A26210X	241A26310X
09	75 (UII) / 5 (CSA VDE)	100	E202784	3	2x 1300	242A26220X	241A26320X
15						242A26230X	241A26330X
25						242A26240X	241A26340X
37						242A26250X	241A26350X



**FILTER D-SUB CONNECTORS**  
C-Filter High Density

Solder pin, straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Through-hole Ø 3 mm

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	370	242A17980X	241A16380X	
	26						242A17990X	241A16390X	
	44						242A18000X	241A16400X	
	62						242A18010X	241A16410X	
	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	830	242A18020X	241A16420X	
	26						242A18030X	241A16430X	
	44						242A18040X	241A16440X	
	62						242A18050X	241A16450X	

4-40 UNC threaded insert

	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	370	242A18060X	241A16460X
	26						242A18070X	241A16470X
	44						242A18080X	241A16480X
	62						242A18090X	241A16490X
	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	830	242A18100X	241A16500X
	26						242A18110X	241A16510X
	44						242A18120X	241A16520X
	62						242A18130X	241A16530X

4-40 UNC threaded rear spacer

	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	370	242A18220X	241A16620X
	26						242A18230X	241A16630X
	44						242A18240X	241A16640X
	62						242A18250X	241A16650X
	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	830	242A18260X	241A16660X
	26						242A18270X	241A16670X
	44						242A18280X	241A16680X
	62						242A18290X	241A16690X

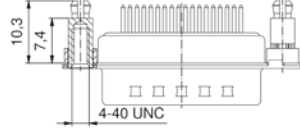
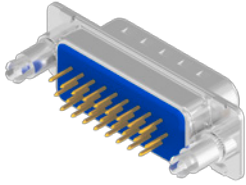
4-40 UNC front, threaded rear spacer

	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	370	242A18380X	241A16780X
	26						242A18390X	241A16790X
	44						242A18400X	241A16800X
	62						242A18410X	241A16810X
	15	3 (UL VDE) / 2.5 (CSA)	100	E202784	3	830	242A18420X	241A16820X
	26						242A18430X	241A16830X
	44						242A18440X	241A16840X
	62						242A18450X	241A16850X

**FILTER D-SUB CONNECTORS**  
C-Filter High Density

Solder pin, straight  
Precision machined contacts

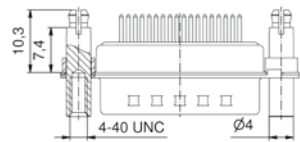
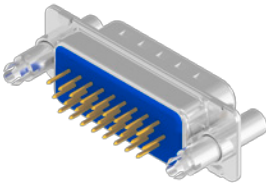
4-40 UNC threaded rear spacer clip for PCB 1.6 mm



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20610X	241A20760X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20620X	241A20770X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20630X	241A20780X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20640X	241A20790X
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20650X	241A20800X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20660X	241A20810X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20670X	241A20820X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20680X	241A20830X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

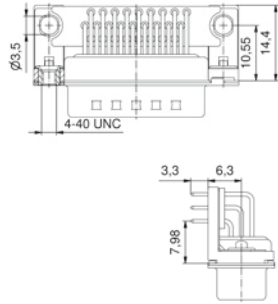
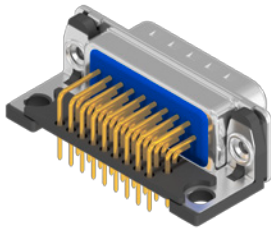


15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20770X	241A20920X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20780X	241A20930X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20790X	241A20940X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A20800X	241A20950X
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20810X	241A20960X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20820X	241A20970X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20830X	241A20980X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A20840X	241A20990X

**FILTER D-SUB CONNECTORS**  
C-Filter High Density

Solder pin, angled, .350" / 7.98 mm  
Precision machined contacts, plastic bracket

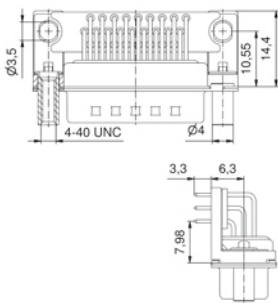
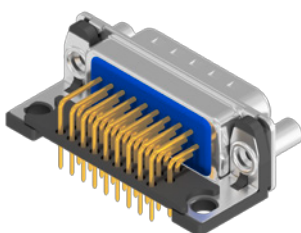
Grounding strap, 4-40 UNC threaded insert



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18690X	241A17100X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18700X	241A17110X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18710X	241A17120X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18720X	241A17130X
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18730X	241A17140X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18740X	241A17150X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18750X	241A17160X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18760X	241A17170X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Grounding strap, 4-40 UNC front spacer



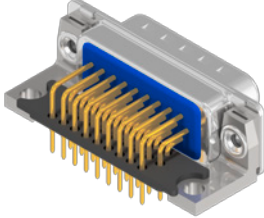
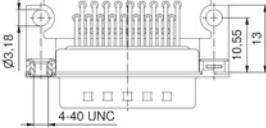
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18850X	241A17260X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18860X	241A17270X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18870X	241A17280X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A18880X	241A17290X
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18890X	241A17300X
26	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18900X	241A17310X
44	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18910X	241A17320X
62	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A18920X	241A17330X



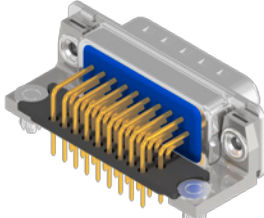
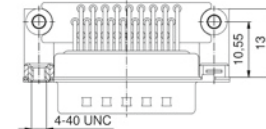
## FILTER D-SUB CONNECTORS C-Filter High Density

Solder pin, angled, .350" / 7.98 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A19810X	241A18220X	
	26						242A19820X	241A18230X	
	44						242A19830X	241A18240X	
	62						242A19840X	241A18250X	
	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A19850X	241A18260X	
	26						242A19860X	241A18270X	
	44						242A19870X	241A18280X	
	62						242A19880X	241A18290X	

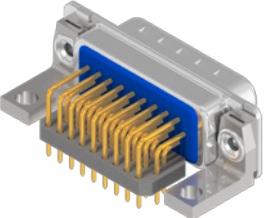
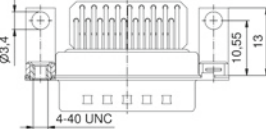
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A19490X	241A17900X
	26						242A19500X	241A17910X
	44						242A19510X	241A17920X
	62						242A19520X	241A17930X
	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A19530X	241A17940X
	26						242A19540X	241A17950X
	44						242A19550X	241A17960X
	62						242A19560X	241A17970X

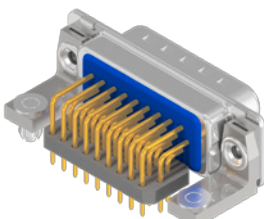
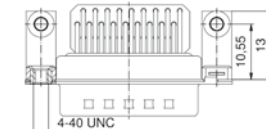
## FILTER D-SUB CONNECTORS LC-Filter High Density

Solder pin, angled, .350" / 7.98 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No. Socket contact	Part No. Plug contact
 	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A25620X	241A25720X	
	26						242A25630X	241A25730X	
	44						242A25640X	241A25740X	
	62						242A25650X	241A25750X	
	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A25660X	241A25760X	
	26						242A25670X	241A25770X	
	44						242A25680X	241A25780X	
	62						242A25690X	241A25790X	

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	242A25780X	241A25880X
	26						242A25790X	241A25890X
	44						242A25800X	241A25900X
	62						242A25810X	241A25910X
	15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	242A25820X	241A25920X
	26						242A25830X	241A25930X
	44						242A25840X	241A25940X
	62						242A25850X	241A25950X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

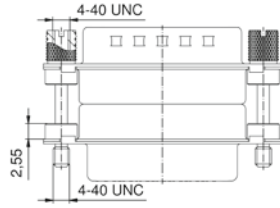
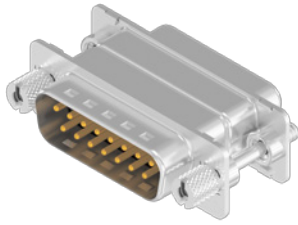
Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Brass tin plated or stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread



**FILTER D-SUB CONNECTORS**  
C-Filter Full Metal Adapter

Socket connector - Plug connector  
Precision machined contacts

4-40 UNC jack screw



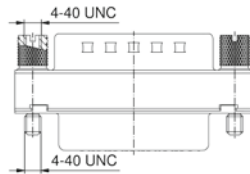
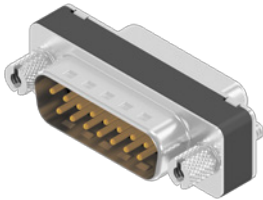
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	243A12200X
15	243A12210X					
25	243A12220X					
37	243A12230X					
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	243A12240X
15	243A12250X					
25	243A12260X					
37	243A12270X					
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	243A12280X
15	243A12290X					
25	243A12300X					
37	243A12310X					

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 jack screw

**FILTER D-SUB CONNECTORS**  
C-Filter Adapter

Socket connector - Plug connector, low profile  
Precision machined contacts

4-40 UNC jack screw



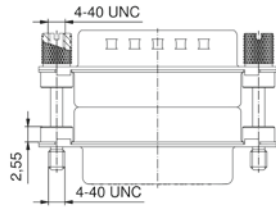
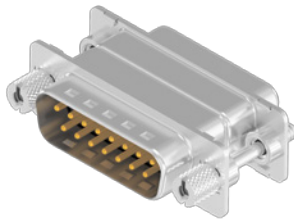
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	370	243A10010X
15						243A10020X
25						243A10030X
37						243A10040X
50	243A10130X					
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	830	243A10090X
15						243A10100X
25						243A10110X
37						243A10120X
50	243A10150X					
09	75 (UL) / 5 (CSA, VDE)	100	E202784	3	1300	243A10050X
15						243A10060X
25						243A10070X
37						243A10080X
50	243A10140X					

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 jack screw

**FILTER D-SUB CONNECTORS**  
π-Filter Full Metal Adapter

Socket connector - Plug connector  
Precision machined contacts

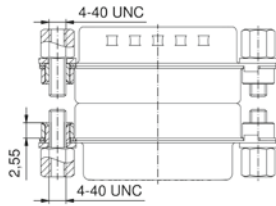
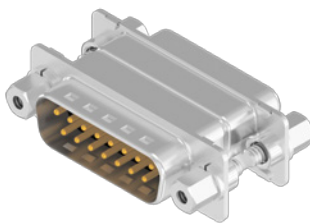
4-40 UNC jack screw



No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
09	15 (UL) / 5 (CSA, VDE)	100	E202784	3	2x 370	MAP1XAAAR02R741X
15	MAP2XAAAR02R741X					
25	MAP3XAAAR02R741X					
37	MAP4XAAAR02R741X					
09	15 (UL) / 5 (CSA, VDE)	100	E202784	3	2x 830	MAP1XAAAR02R162X
15	MAP2XAAAR02R162X					
25	MAP3XAAAR02R162X					
37	MAP4XAAAR02R162X					
09	15 (UL) / 5 (CSA, VDE)	100	E202784	3	2x 1300	MAP1XAAAR02R262X
15	MAP2XAAAR02R262X					
25	MAP3XAAAR02R262X					
37	MAP4XAAAR02R262X					

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 jack screw  
• M3 hex bolt

4-40 UNC hex bolt

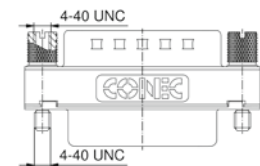


09	15 (UL) / 5 (CSA, VDE)	100	E202784	3	2x 370	MAP1XAAAH02R741X
15	MAP2XAAAH02R741X					
25	MAP3XAAAH02R741X					
37	MAP4XAAAH02R741X					
09	15 (UL) / 5 (CSA, VDE)	100	E202784	3	2x 830	MAP1XAAAH02R162X
15	MAP2XAAAH02R162X					
25	MAP3XAAAH02R162X					
37	MAP4XAAAH02R162X					
09	15 (UL) / 5 (CSA, VDE)	100	E202784	3	2x 1300	MAP1XAAAH02R262X
15	MAP2XAAAH02R262X					
25	MAP3XAAAH02R262X					
37	MAP4XAAAH02R262X					

**FILTER D-SUB CONNECTORS**  
C-Filter Adapter High Density

Socket connector - Plug connector, low profile  
Precision machined contacts

4-40 UNC jack screw



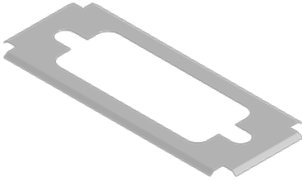
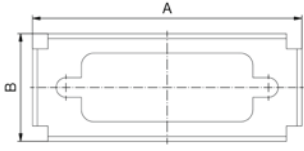
No. of poles	Current rating [A]	Working voltage [V DC]	UL-File	Quality class	Capacitance [pF]	Part No.
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	370	243A11640X
26						243A11650X
44						243A11660X
62						243A11670X
15	3 (UL, VDE) / 2.5 (CSA)	100	E202784	3	830	243A11680X
26						243A11690X
44						243A11700X
62						243A11710X

Shell: Steel tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles  
• M3 jack screw

**FILTER D-SUB CONNECTORS**  
Accessories

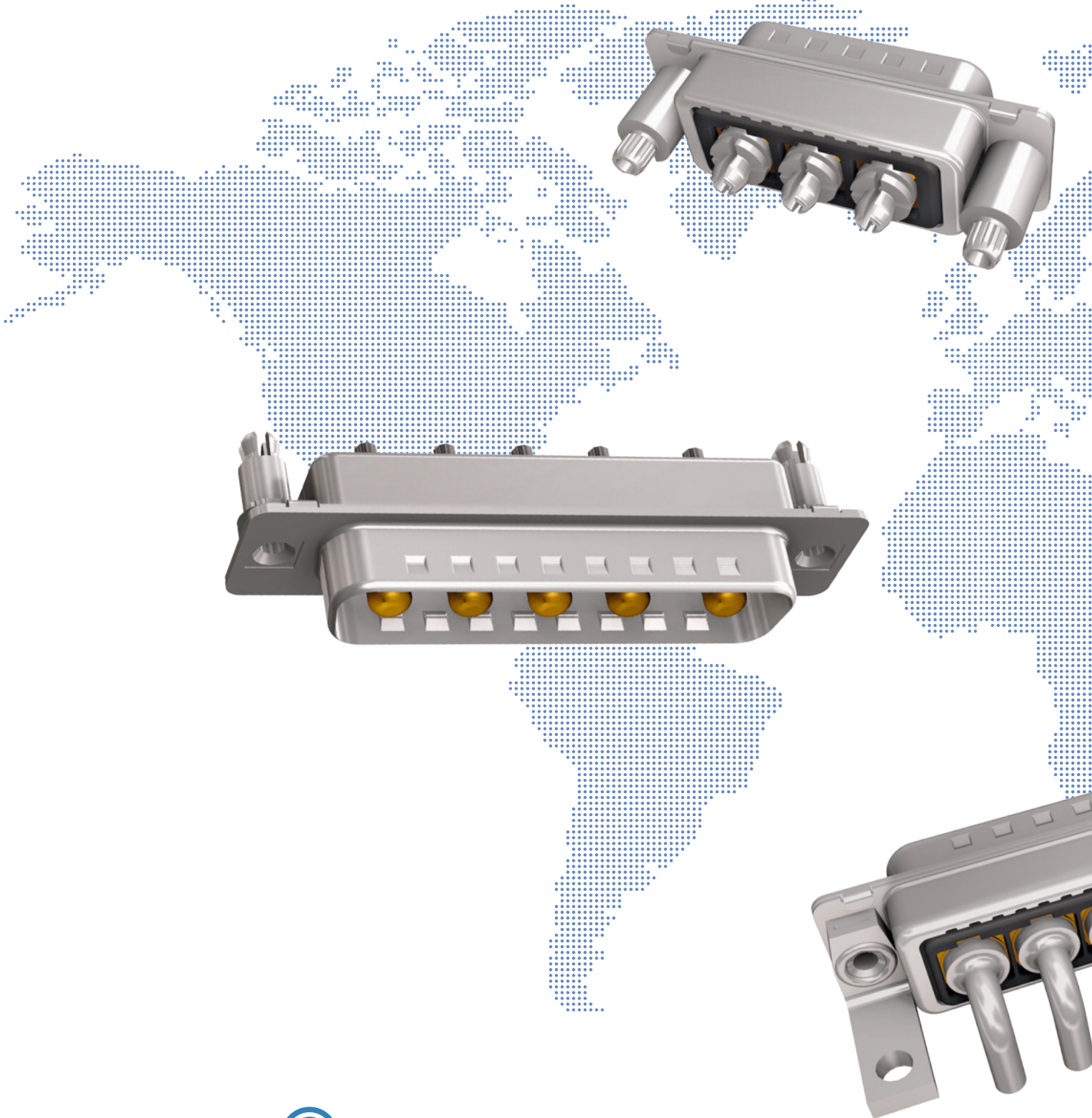
EMI/RFI shielding frames

- Material: Stainless steel
- For improved ground contact
- Suitable for assembly to the mating side

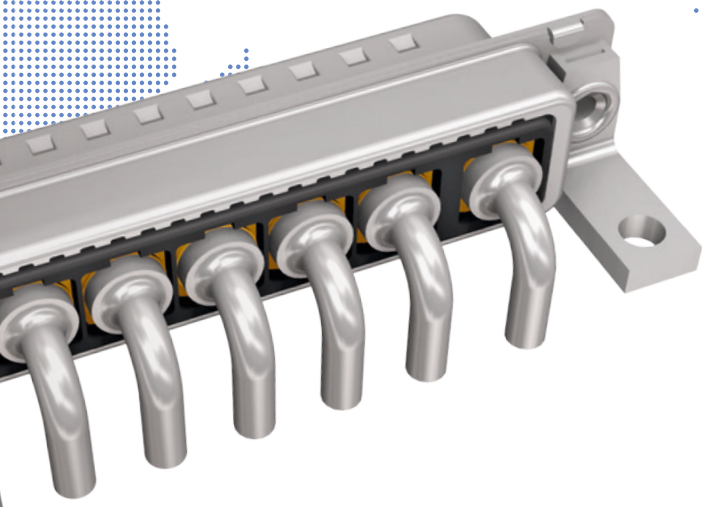
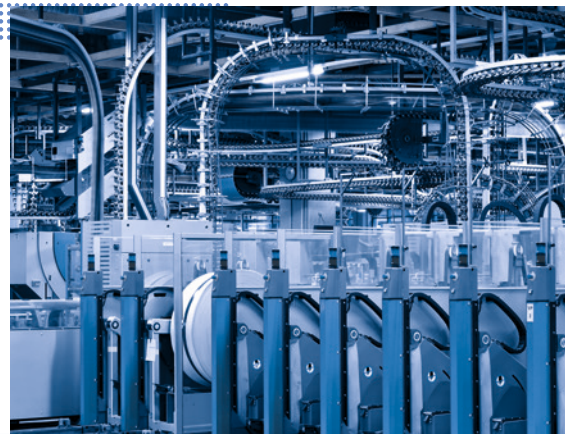
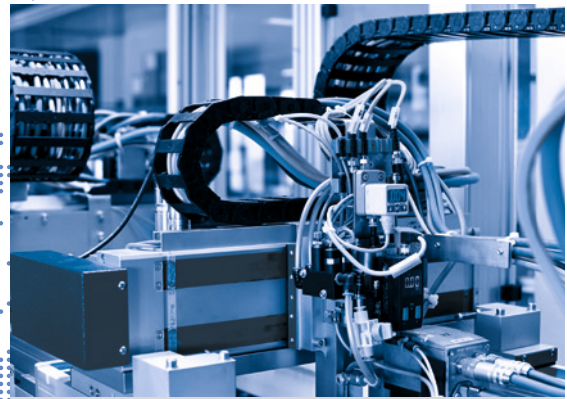
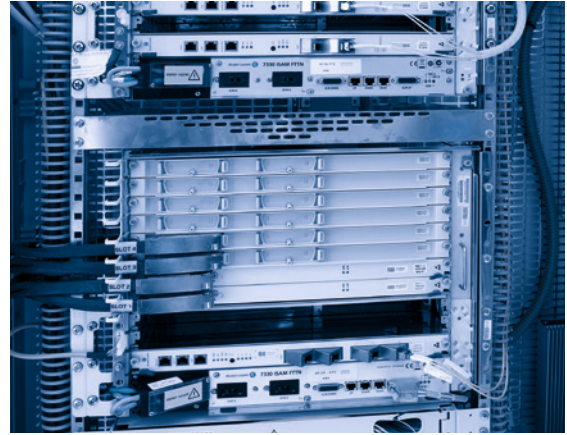
		Shell size	No. of poles Standard	No. of poles High Density	Measure A [mm]	Measure B [mm]	Part No.
 	1	09	15	35.8	17.5	160X10839X	
	2	15	26	44.2	17.5	160X10849X	
	3	25	44	57.9	17.5	160X10859X	
	4	37	62	74.4	17.5	160X10869X	
	5	50	78	72.1	20.3	160X10879X	

SECTION 4

# FILTER COMBINATION D-SUB CONNECTORS







# FILTER COMBINATION D-SUB CONNECTORS

## Part Number Creator

**3 F 3 S P A 0 8 S 4 1 A 1 O X**

### Shell size and design

- 1 = 2F2C (2W2C)\* = Coded
- 2 = 3F3S (3W3S)\* = Standard
- 2 = 3F3C (3W3C)\* = Coded
- 3 = 5F5S (5W5S)\* = Standard
- 4 = 8F8S (8W8S)\* = Standard

\*F = filtered

### Contact type

- P = Plug connector
- S = Socket connector

### Plaiting code/Quality class for contacts

- A = Quality class 3 = 50 mating cycles
- C = Quality class 1 = 500 mating cycles\* \*on request

### Capacitance

- 05 = 1.3 nF      14 = 12 nF
- 08 = 5.0 nF      22 = 47 nF
- 12 = 10 nF      28 = 100 nF

### Dielectric with standing voltage

- S = 707 VDC standard DWV      U = 1500 VDC ultra high DWV
- H = 1020 VDC high DWV

### Termination for high current contacts

- 41 = Solder cup 10 A
- 42 = Solder cup 20 A
- 43 = Solder cup 30 A
- 44 = Solder cup 40 A
- 45 = Solder cup 50 A
- 46 = Solder cup 65 A\*
- 48 = Solder pin, straight 20 A, D= .077"/1.95 mm
- 49 = Solder pin, straight 20 A, D= .102"/2.60 mm
- 50 = Solder pin, straight 20 A, D= .112"/2.85 mm
- 51 = Solder pin, straight 30 A, D= .125"/3.18 mm
- 52 = Solder pin, straight 40 A, D= .148"/3.75 mm
- 53 = Solder pin, straight 50 A, D= .148"/3.75 mm
- 56 = Solder pin, angled 20 A
- 57 = Solder pin, angled 30 A
- 58 = Solder pin, angled 40 A
- P1 = Press fit 30 A
- P2 = Press fit 30 A
- P4 = Press fit 30 A
- \*3W3: Pos. A1 + A3; 5W5: Pos. A1 + A3 + A5

### Mounting style

- A1 = Riveted
- A3 = 4-40 UNC threaded insert
- A5 = 4-40 UNC threaded rear spacer
- AA = Threaded rear spacer with 4-40 UNC press fit
- C2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- C4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- C6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- D2 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- D4 = 4-40 UNC front/threaded rear spacer with PCB clip .091"/2.30 mm
- D6 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- E4 = 4-40 UNC threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- E6 = 4-40 UNC threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- F2 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .063"/1.60 mm
- F4 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .091"/2.30 mm
- F6 = 4-40 UNC front/threaded rear spacer with PCB clip, PCB .126"/3.20 mm
- K2 = Metal bracket, 4-40 UNC threaded insert
- K4 = Metal bracket, 4-40 UNC threaded insert /PCB clip
- L2 = Metal bracket, 4-40 UNC threaded lock
- L4 = Metal bracket, 4-40 UNC threaded lock /PCB clip
- W4 = Press-fit spacer with 4-40 UNC push in pin

- OX = Standard

## FILTER COMBINATION D-SUB CONNECTORS

### Product specification

Basic Material	Variations 2W2C – 3W3C – 3W3 – 5W5 – 8W8			
Contacts	CU alloy			
Contact plating	Mating area gold plated over nickel / termination area tin or gold plated			
Insulator	PBT GF UL 94 V-0			
Shell	Steel tin plated			
Technical Data				
Dielectric with standing voltage	Standard DWV	707 VDC		
	High DWV	1020 VDC		
	Ultra High DWV	1500 VDC		
Working voltage	100 VDC			
	Depending on isolation coordination refer to DIN VDE 0110/IEC 664-1			
Current rating	up to 65 A (20 °C)			
Contact resistance	Max. 2 mΩ prior to stressing, ΔR max. 2 mΩ after stressing refer to IEC 60807-2			
Insulation resistance	≥1 GΩ			
Capacitor values For other capacitance values please contact the factory.	1.3 nF ± 20 % tolerance	12 nF ± 20 % tolerance		
	5 nF ± 20 % tolerance	47 nF ± 20 % tolerance		
	10 nF ± 20 % tolerance	100 nF ± 20 % tolerance		
	other capacitor values on request			
Operating temperature	-55 °C to + 125 °C			
Humidity	40 °C / 85 % relative humidity / RH			
Insertion force per contact	7 N			
Extraction force per contact	approx 5 N			
Quality class	A = Quality class 3 = 50 mating cycles			
	C = Quality class 1 = 500 mating cycles			
Solder parameter	Preheating		Solder terminal dipping parameters	
	max. Temperature	Duration	max. solder bath Temperature	max. Terminal Immersion Time
Recommended wave-solder parameters	120 °C	120 s	260 °C	5 s

Technical specifications are subject to change without notice.

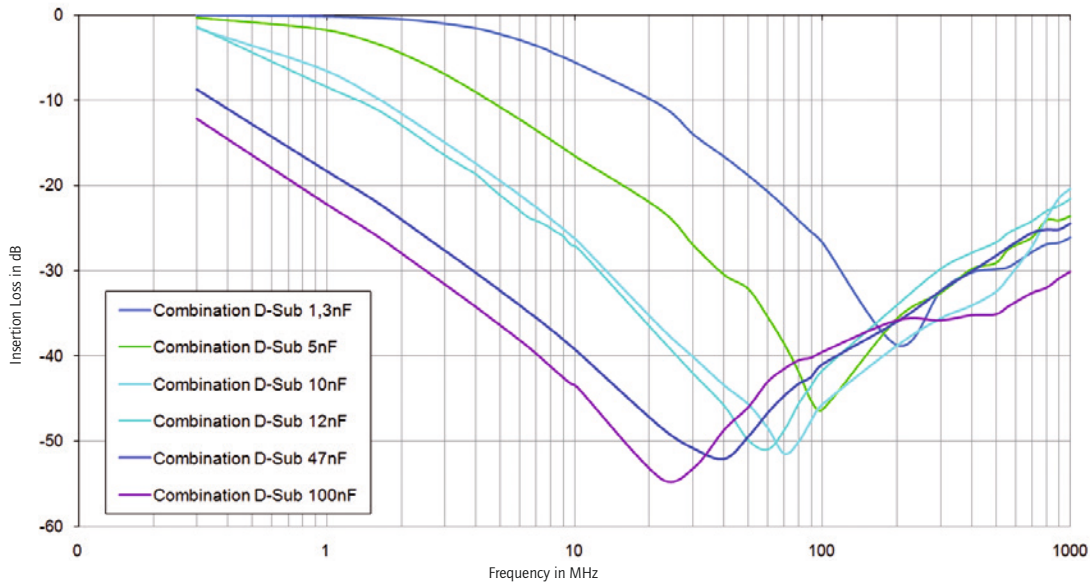


# FILTER COMBINATION D-SUB CONNECTORS

## Insertion loss

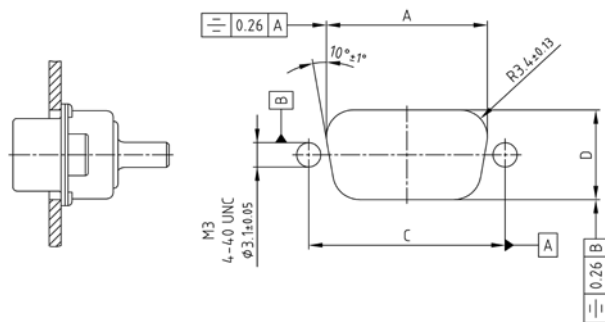
### C-Filter

Typical Insertion Loss

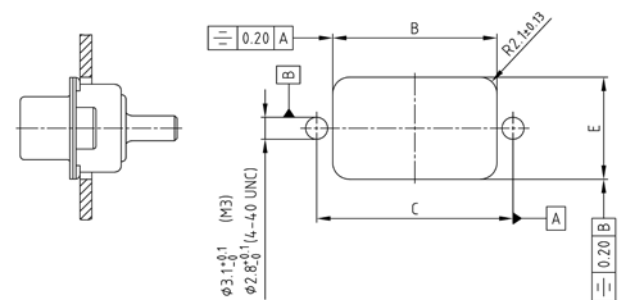


## Panel cut-out

### Back panel mounting



### Front panel mounting



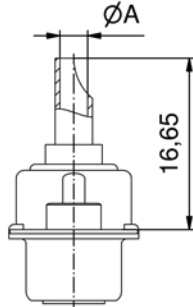
Shell size	Layout	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	2W2C	20.50	20.90	25.00	11.40	13.00
2	3W3S, 3W3C	28.80	29.20	33.30	11.40	13.00
3	5W5S	42.50	42.90	47.04	11.40	13.00
4	8W8S	59.10	59.40	63.50	11.40	13.00

Technical specifications are subject to change without notice.

## FILTER COMBINATION D-SUB CONNECTORS

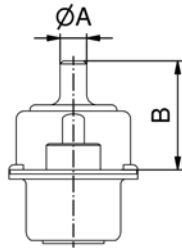
### Termination code high power contacts

#### Solder cup



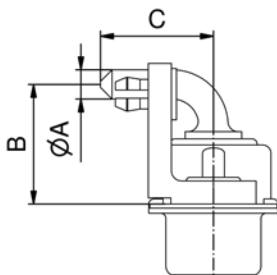
Termination Code	Current rating	AWG	Ø A [mm]
41	10 A	16-20	1.80
42	20 A	12-14	2.70
43	30 A	10-12	3.50
44	40 A	8-10	4.80

#### Solder pin straight



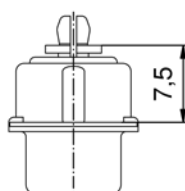
Termination Code	Current rating	Ø A [mm]	B ± 0.3 [mm]	PCB thickness [mm]	Hole diameter in PCB [mm]
48	20 A	1.95	9.65	1.6	2.30 ± 0.1
49	20 A	2.60	10.65	1.6	3.00 ± 0.1
50	20 A	2.85	10.05	1.6	3.20 ± 0.1
51	30 A	3.18	12.85	1.6/2.3/3.2	3.60 ± 0.1
52	40 A	3.75	11.10	1.6/2.3/3.2	4.10 ± 0.1

#### Solder pin angled

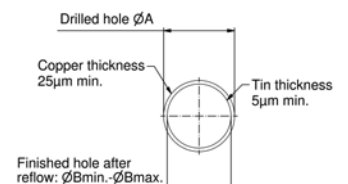


Termination Code	Current rating	Ø A [mm]	B ± 0.3 [mm]	C ± 0.3 [mm]	Hole diameter in PCB [mm]
56	20 A	2.85	11.65	11.00	3.20 ± 0.1
57	30 A	3.18	20.35	9.50	3.60 ± 0.1
58	40 A	3.75	11.65	11.00	4.10 ± 0.1

#### Press-fit contact



Termination Code	Current rating	Ø A ± 0.03 [mm]	Ø B min. [mm]	Ø B max. [mm]
P1	30 A	3.13	2.96	3.11
P2	30 A	3.27	3.10	3.25
P4	30 A	3.22	3.02	3.20

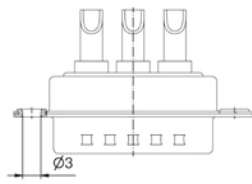
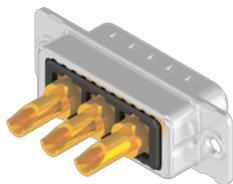


Technical specifications are subject to change without notice.

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder cup  
Precision machined contacts, AWG 8-20

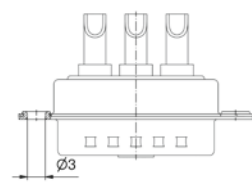
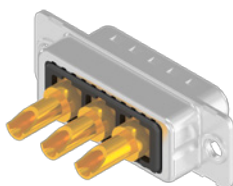
### Through-hole Ø 3 mm



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

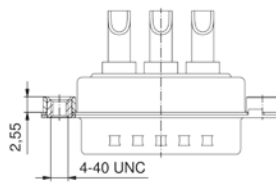
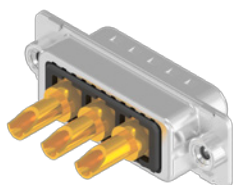
### Through-hole Ø 3 mm, coded version



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

### 4-40 UNC threaded insert



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

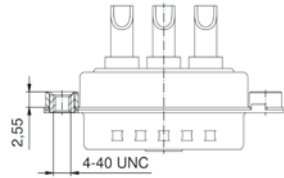
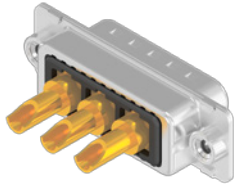
Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	AWG	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	10	100	16-20	47	E228329	3	3F3SSA22S41A10X	3F3SPA22S41A10X
	20		12-14				3F3SSA22S42A10X	3F3SPA22S42A10X
	30		10-12				3F3SSA22S43A10X	3F3SPA22S43A10X
	40		8-10				3F3SSA22S44A10X	3F3SPA22S44A10X
5W5	10	100	16-20	47	E228329	3	5F5SSA22S41A10X	5F5SPA22S41A10X
	20		12-14				5F5SSA22S42A10X	5F5SPA22S42A10X
	30		10-12				5F5SSA22S43A10X	5F5SPA22S43A10X
	40		8-10				5F5SSA22S44A10X	5F5SPA22S44A10X
8W8	10	100	16-20	47	E228329	3	8F8SSA22S41A10X	8F8SPA22S41A10X
	20		12-14				8F8SSA22S42A10X	8F8SPA22S42A10X
	30		10-12				8F8SSA22S43A10X	8F8SPA22S43A10X
	40		8-10				8F8SSA22S44A10X	8F8SPA22S44A10X
2W2C	10	100	16-20	47	E228329	3	2F2CSA22S41A10X	2F2CPA22S41A10X
	20		12-14				2F2CSA22S42A10X	2F2CPA22S42A10X
	30		10-12				2F2CSA22S43A10X	2F2CPA22S43A10X
	40		8-10				2F2CSA22S44A10X	2F2CPA22S44A10X
3W3C	10	100	16-20	47	E228329	3	3F3CSA22S41A10X	3F3CPA22S41A10X
	20		12-14				3F3CSA22S42A10X	3F3CPA22S42A10X
	30		10-12				3F3CSA22S43A10X	3F3CPA22S43A10X
	40		8-10				3F3CSA22S44A10X	3F3CPA22S44A10X
3W3	10	100	16-20	47	E228329	3	3F3SSA22S41A30X	3F3SPA22S41A30X
	20		12-14				3F3SSA22S42A30X	3F3SPA22S42A30X
	30		10-12				3F3SSA22S43A30X	3F3SPA22S43A30X
	40		8-10				3F3SSA22S44A30X	3F3SPA22S44A30X
5W5	10	100	16-20	47	E228329	3	5F5SSA22S41A30X	5F5SPA22S41A30X
	20		12-14				5F5SSA22S42A30X	5F5SPA22S42A30X
	30		10-12				5F5SSA22S43A30X	5F5SPA22S43A30X
	40		8-10				5F5SSA22S44A30X	5F5SPA22S44A30X
8W8	10	100	16-20	47	E228329	3	8F8SSA22S41A30X	8F8SPA22S41A30X
	20		12-14				8F8SSA22S42A30X	8F8SPA22S42A30X
	30		10-12				8F8SSA22S43A30X	8F8SPA22S43A30X
	40		8-10				8F8SSA22S44A30X	8F8SPA22S44A30X

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder cup  
Precision machined contacts, AWG 8-20

4-40 UNC threaded insert, coded version



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

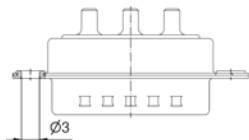
Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	AWG	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact	
2W2C	100	100	47	E228329	3	10	16-20	2F2CSA22S41A30X	2F2CPA22S41A30X
						20	12-14	2F2CSA22S42A30X	2F2CPA22S42A30X
						30	10-12	2F2CSA22S43A30X	2F2CPA22S43A30X
						40	8-10	2F2CSA22S44A30X	2F2CPA22S44A30X
3W3C	100	100	47	E228329	3	10	16-20	3F3CSA22S41A30X	3F3CPA22S41A30X
						20	12-14	3F3CSA22S42A30X	3F3CPA22S42A30X
						30	10-12	3F3CSA22S43A30X	3F3CPA22S43A30X
						40	8-10	3F3CSA22S44A30X	3F3CPA22S44A30X

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

Through-hole Ø 3 mm



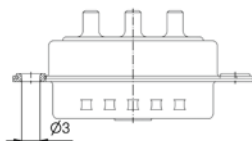
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact			
3W3	20	100	1.95	47	E228329	3	3F3SSA22S48A10X	3F3SPA22S48A10X			
			2.60				3F3SSA22S49A10X	3F3SPA22S49A10X			
	30	40	2.85	3F3SSA22S50A10X			3F3SPA22S50A10X				
			3.18	3F3SSA22S51A10X			3F3SPA22S51A10X				
	40	3.75	3F3SSA22S52A10X	3F3SPA22S52A10X							
			3.75	3F3SSA22S52A10X			3F3SPA22S52A10X				
	5W5	20	100	1.95			47	E228329	3	5F5SSA22S48A10X	5F5SPA22S48A10X
				2.60						5F5SSA22S49A10X	5F5SPA22S49A10X
30		40	2.85	5F5SSA22S50A10X	5F5SPA22S50A10X						
			3.18	5F5SSA22S51A10X	5F5SPA22S51A10X						
40		3.75	5F5SSA22S52A10X	5F5SPA22S52A10X							
			3.75	5F5SSA22S52A10X	5F5SPA22S52A10X						
8W8		20	100	1.95	47	E228329	3			8F8SSA22S48A10X	8F8SPA22S48A10X
				2.60						8F8SSA22S49A10X	8F8SPA22S49A10X
	30	40	2.85	8F8SSA22S50A10X	8F8SPA22S50A10X						
			3.18	8F8SSA22S51A10X	8F8SPA22S51A10X						
	40	3.75	8F8SSA22S52A10X	8F8SPA22S52A10X							
			3.75	8F8SSA22S52A10X	8F8SPA22S52A10X						

Through-hole Ø 3 mm, coded version



For other capacitance values refer to the part number creator.


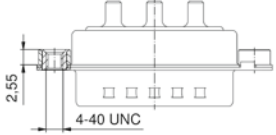
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact			
2W2C	20	100	1.95	47	E228329	3	2F2CSA22S48A10X	2F2CPA22S48A10X			
			2.60				2F2CSA22S49A10X	2F2CPA22S49A10X			
	30	40	2.85	2F2CSA22S50A10X			2F2CPA22S50A10X				
			3.18	2F2CSA22S51A10X			2F2CPA22S51A10X				
	40	3.75	2F2CSA22S52A10X	2F2CPA22S52A10X							
			3.75	2F2CSA22S52A10X			2F2CPA22S52A10X				
	3W3C	20	100	1.95			47	E228329	3	3F3CSA22S48A10X	3F3CPA22S48A10X
				2.60						3F3CSA22S49A10X	3F3CPA22S49A10X
30		40	2.85	3F3CSA22S50A10X	3F3CPA22S50A10X						
			3.18	3F3CSA22S51A10X	3F3CPA22S51A10X						
40		3.75	3F3CSA22S52A10X	3F3CPA22S52A10X							
			3.75	3F3CSA22S52A10X	3F3CPA22S52A10X						

# FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

## 4-40 UNC threaded insert


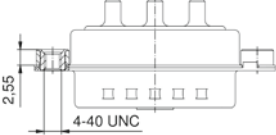
4-40 UNC threaded insert		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	20	1.95	100	2.85	47	E228329	3	3F3SSA22S48A30X	3F3SPA22S48A30X
			2.60						3F3SSA22S49A30X	3F3SPA22S49A30X
		3.18	3F3SSA22S50A30X	3F3SPA22S50A30X						
		3.75	3F3SSA22S51A30X	3F3SPA22S51A30X						
	5W5	20	1.95	100	2.85	47	E228329	3	5F5SSA22S48A30X	5F5SPA22S48A30X
			2.60						5F5SSA22S49A30X	5F5SPA22S49A30X
		3.18	5F5SSA22S50A30X	5F5SPA22S50A30X						
		3.75	5F5SSA22S51A30X	5F5SPA22S51A30X						
	8W8	20	1.95	100	2.85	47	E228329	3	8F8SSA22S48A30X	8F8SPA22S48A30X
			2.60						8F8SSA22S49A30X	8F8SPA22S49A30X
		3.18	8F8SSA22S50A30X	8F8SPA22S50A30X						
		3.75	8F8SSA22S51A30X	8F8SPA22S51A30X						
8W8	20	1.95	100	2.85	47	E228329	3	8F8SSA22S52A30X	8F8SPA22S52A30X	
		2.60						8F8SSA22S49A30X	8F8SPA22S49A30X	
	3.18	8F8SSA22S50A30X	8F8SPA22S50A30X							
	3.75	8F8SSA22S51A30X	8F8SPA22S51A30X							

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

## 4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	20	1.95	100	2.85	47	E228329	3	2F2CSA22S48A30X	2F2CPA22S48A30X
			2.60						2F2CSA22S49A30X	2F2CPA22S49A30X
		3.18	2F2CSA22S50A30X	2F2CPA22S50A30X						
		3.75	2F2CSA22S51A30X	2F2CPA22S51A30X						
	3W3C	20	1.95	100	2.85	47	E228329	3	3F3CSA22S48A30X	3F3CPA22S48A30X
			2.60						3F3CSA22S49A30X	3F3CPA22S49A30X
		3.18	3F3CSA22S50A30X	3F3CPA22S50A30X						
		3.75	3F3CSA22S51A30X	3F3CPA22S51A30X						
	3W3C	20	1.95	100	2.85	47	E228329	3	3F3CSA22S52A30X	3F3CPA22S52A30X
			2.60						3F3CSA22S49A30X	3F3CPA22S49A30X
		3.18	3F3CSA22S50A30X	3F3CPA22S50A30X						
		3.75	3F3CSA22S51A30X	3F3CPA22S51A30X						

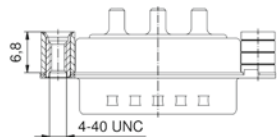
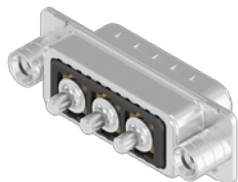
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

4-40 UNC threaded rear spacer



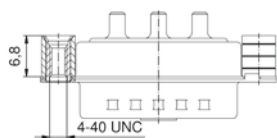
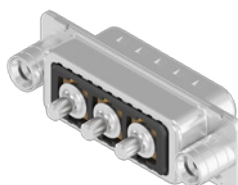
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	100	1.95	47	E228329	3	3F3SSA22S48A50X	3F3SPA22S48A50X
			2.60				3F3SSA22S49A50X	3F3SPA22S49A50X
	2.85	3F3SSA22S50A50X	3F3SPA22S50A50X					
	3.18	3F3SSA22S51A50X	3F3SPA22S51A50X					
40	3.75	3F3SSA22S52A50X	3F3SPA22S52A50X					
5W5	20	100	1.95	47	E228329	3	5F5SSA22S48A50X	5F5SPA22S48A50X
			2.60				5F5SSA22S49A50X	5F5SPA22S49A50X
	2.85	5F5SSA22S50A50X	5F5SPA22S50A50X					
	3.18	5F5SSA22S51A50X	5F5SPA22S51A50X					
40	3.75	5F5SSA22S52A50X	5F5SPA22S52A50X					
8W8	20	100	1.95	47	E228329	3	8F8SSA22S48A50X	8F8SPA22S48A50X
			2.60				8F8SSA22S49A50X	8F8SPA22S49A50X
	2.85	8F8SSA22S50A50X	8F8SPA22S50A50X					
	3.18	8F8SSA22S51A50X	8F8SPA22S51A50X					
40	3.75	8F8SSA22S52A50X	8F8SPA22S52A50X					

4-40 UNC threaded rear spacer, coded version



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	20	100	1.95	47	E228329	3	2F2CSA22S48A50X	2F2CPA22S48A50X
			2.60				2F2CSA22S49A50X	2F2CPA22S49A50X
	2.85	2F2CSA22S50A50X	2F2CPA22S50A50X					
	3.18	2F2CSA22S51A50X	2F2CPA22S51A50X					
40	3.75	2F2CSA22S52A50X	2F2CPA22S52A50X					
3W3C	20	100	1.95	47	E228329	3	3F3CSA22S48A50X	3F3CPA22S48A50X
			2.60				3F3CSA22S49A50X	3F3CPA22S49A50X
	2.85	3F3CSA22S50A50X	3F3CPA22S50A50X					
	3.18	3F3CSA22S51A50X	3F3CPA22S51A50X					
40	3.75	3F3CSA22S52A50X	3F3CPA22S52A50X					

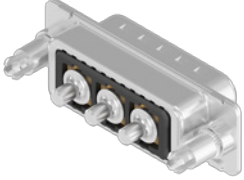
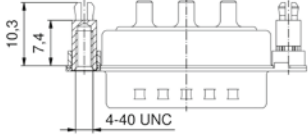


# FILTER COMBINATION D-SUB CONNECTORS

## C-Filter

Solder pin straight  
Precision machined contacts

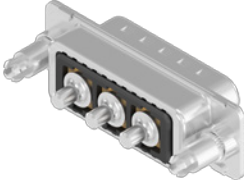
4-40 UNC threaded rear spacer clip for PCB 1.6 mm

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	20	1.95	260	47	E228329	3	3F3SSA22S48E20X	3F3SPA22S48E20X	
			2.60					3F3SSA22S49E20X	3F3SPA22S49E20X	
		100	2.85	3F3SSA22S50E20X	3F3SPA22S50E20X					
			3.18	3F3SSA22S51E20X	3F3SPA22S51E20X					
	5W5	20	1.95	260	47	E228329	3	5F5SSA22S48E20X	5F5SPA22S48E20X	
			2.60					5F5SSA22S49E20X	5F5SPA22S49E20X	
		100	2.85	5F5SSA22S50E20X	5F5SPA22S50E20X					
			3.18	5F5SSA22S51E20X	5F5SPA22S51E20X					
	8W8	20	1.95	260	47	E228329	3	8F8SSA22S48E20X	8F8SPA22S48E20X	
			2.60					8F8SSA22S49E20X	8F8SPA22S49E20X	
		100	2.85	8F8SSA22S50E20X	8F8SPA22S50E20X					
			3.18	8F8SSA22S51E20X	8F8SPA22S51E20X					
40	3.75	3.18	8F8SSA22S52E20X	8F8SPA22S52E20X						
		3.75	8F8SSA22S52E20X	8F8SPA22S52E20X						

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

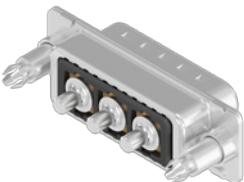
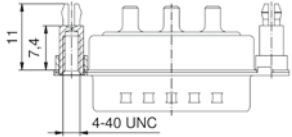
4-40 UNC threaded rear spacer clip for PCB 1.6 mm, coded version

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	2W2C	20	1.95	260	47	E228329	3	2F2CSA22S48E20X	2F2CPA22S48E20X	
			2.60					2F2CSA22S49E20X	2F2CPA22S49E20X	
		100	2.85	2F2CSA22S50E20X	2F2CPA22S50E20X					
			3.18	2F2CSA22S51E20X	2F2CPA22S51E20X					
	3W3C	20	1.95	260	47	E228329	3	3F3CSA22S48E20X	3F3CPA22S48E20X	
			2.60					3F3CSA22S49E20X	3F3CPA22S49E20X	
		100	2.85	3F3CSA22S50E20X	3F3CPA22S50E20X					
			3.18	3F3CSA22S51E20X	3F3CPA22S51E20X					
	40	3.75	3.18	3F3CSA22S52E20X	3F3CPA22S52E20X					
			3.75	3F3CSA22S52E20X	3F3CPA22S52E20X					

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

4-40 UNC threaded rear spacer clip for PCB 2.3 mm

		No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	3W3	30	3.18	47	E228329	3	3F3SSA22S51E40X	3F3SPA22S51E40X		
			3.75				3F3SSA22S52E40X	3F3SPA22S52E40X		
	5W5	30	3.18	47	E228329	3	5F5SSA22S51E40X	5F5SPA22S51E40X		
			3.75				5F5SSA22S52E40X	5F5SPA22S52E40X		
	8W8	30	3.18	47	E228329	3	8F8SSA22S51E40X	8F8SPA22S51E40X		
			3.75				8F8SSA22S52E40X	8F8SPA22S52E40X		

For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

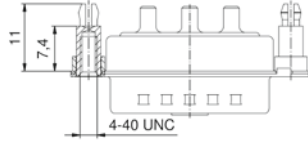
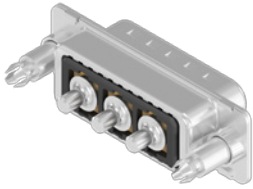
Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin straight  
Precision machined contacts

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded rear spacer clip for PCB 2.3 mm, coded version

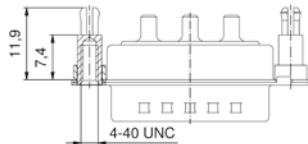
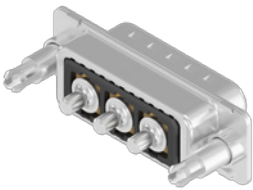


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	30	3.18	47	E228329	3	3	2F2CSA22S51E40X	2F2CPA22S51E40X
	100	47					2F2CSA22S52E40X	2F2CPA22S52E40X
	40	3.75					2F2CSA22S52E40X	2F2CPA22S52E40X
3W3C	30	3.18	47	E228329	3	3	3F3CSA22S51E40X	3F3CPA22S51E40X
	100	47					3F3CSA22S52E40X	3F3CPA22S52E40X
	40	3.75					3F3CSA22S52E40X	3F3CPA22S52E40X

### 4-40 UNC threaded rear spacer clip for PCB 3.2 mm

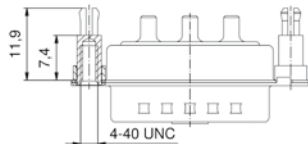
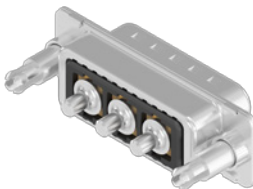


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

3W3	30	3.18	47	E228329	3	3	3F3SSA22S51E60X	3F3SPA22S51E60X
	100	47					3F3SSA22S52E60X	3F3SPA22S52E60X
	40	3.75					3F3SSA22S52E60X	3F3SPA22S52E60X
5W5	30	3.18	47	E228329	3	3	5F5SSA22S51E60X	5F5SPA22S51E60X
	100	47					5F5SSA22S52E60X	5F5SPA22S52E60X
	40	3.75					5F5SSA22S52E60X	5F5SPA22S52E60X
8W8	30	3.18	47	E228329	3	3	8F8SSA22S51E60X	8F8SPA22S51E60X
	100	47					8F8SSA22S52E60X	8F8SPA22S52E60X
	40	3.75					8F8SSA22S52E60X	8F8SPA22S52E60X

### 4-40 UNC threaded rear spacer clip for PCB 3.2 mm, coded version



For other capacitance values refer to the part number creator.

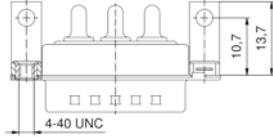
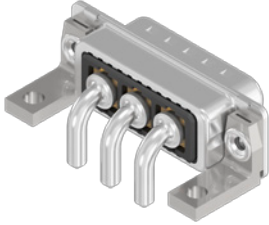
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

2W2C	30	3.18	47	E228329	3	3	2F2CSA22S51E60X	2F2CPA22S51E60X
	100	47					2F2CSA22S52E60X	2F2CPA22S52E60X
	40	3.75					2F2CSA22S52E60X	2F2CPA22S52E60X
3W3C	30	3.18	47	E228329	3	3	3F3CSA22S51E60X	3F3CPA22S51E60X
	100	47					3F3CSA22S52E60X	3F3CPA22S52E60X
	40	3.75					3F3CSA22S52E60X	3F3CPA22S52E60X

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin angled  
Precision machined contacts, metal bracket

### 4-40 UNC threaded insert



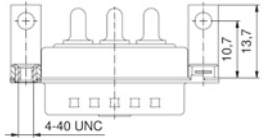
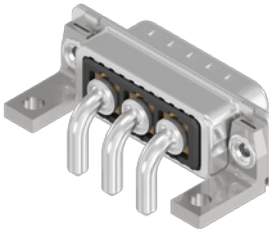
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	285	3.20	47	E228329	3	3F3SSA22S56K20X	3F3SPA22S56K20X
	30	100					3F3SSA22S57K20X	3F3SPA22S57K20X
	40	3.75					3F3SSA22S58K20X	3F3SPA22S58K20X
5W5	20	285	3.20	47	E228329	3	5F5SSA22S56K20X	5F5SPA22S56K20X
	30	100					5F5SSA22S57K20X	5F5SPA22S57K20X
	40	3.75					5F5SSA22S58K20X	5F5SPA22S58K20X
8W8	20	285	3.20	47	E228329	3	8F8SSA22S56K20X	8F8SPA22S56K20X
	30	100					8F8SSA22S57K20X	8F8SPA22S57K20X
	40	3.75					8F8SSA22S58K20X	8F8SPA22S58K20X

### 4-40 UNC threaded insert, coded version

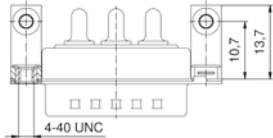
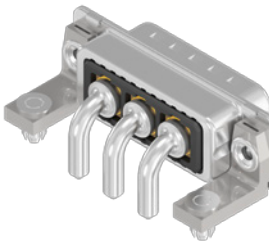


For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

2W2C	20	285	3.20	47	E228329	3	2F2CSA22S56K20X	2F2CPA22S56K20X
	30	100					2F2CSA22S57K20X	2F2CPA22S57K20X
	40	3.75					2F2CSA22S58K20X	2F2CPA22S58K20X
3W3C	20	285	3.20	47	E228329	3	3F3CSA22S56K20X	3F3CPA22S56K20X
	30	100					3F3CSA22S57K20X	3F3CPA22S57K20X
	40	3.75					3F3CSA22S58K20X	3F3CPA22S58K20X

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert



For other capacitance values refer to the part number creator.

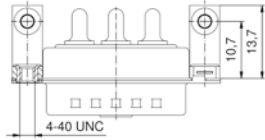
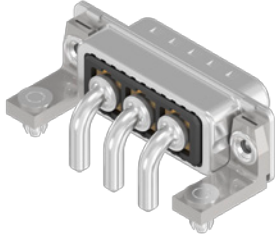
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

3W3	20	285	3.20	47	E228329	3	3F3SSA22S56K40X	3F3SPA22S56K40X
	30	100					3F3SSA22S57K40X	3F3SPA22S57K40X
	40	3.75					3F3SSA22S58K40X	3F3SPA22S58K40X
5W5	20	285	3.20	47	E228329	3	5F5SSA22S56K40X	5F5SPA22S56K40X
	30	100					5F5SSA22S57K40X	5F5SPA22S57K40X
	40	3.75					5F5SSA22S58K40X	5F5SPA22S58K40X
8W8	20	285	3.20	47	E228329	3	8F8SSA22S56K40X	8F8SPA22S56K40X
	30	100					8F8SSA22S57K40X	8F8SPA22S57K40X
	40	3.75					8F8SSA22S58K40X	8F8SPA22S58K40X

## FILTER COMBINATION D-SUB CONNECTORS C-Filter

Solder pin angled  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded version



For other capacitance values refer to the part number creator.

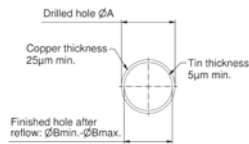
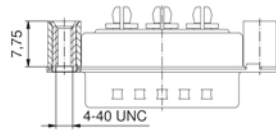
Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Outer Ø contact [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	20	285	3.20	47	E228329	3	2F2CSA22S56K40X	2F2CPA22S56K40X
	30	100					2F2CSA22S57K40X	2F2CPA22S57K40X
	40	3.75					2F2CSA22S58K40X	2F2CPA22S58K40X
3W3C	20	285	3.20	47	E228329	3	3F3CSA22S56K40X	3F3CPA22S56K40X
	30	100					3F3CSA22S57K40X	3F3CPA22S57K40X
	40	3.75					3F3CSA22S58K40X	3F3CPA22S58K40X

Press-fit contact straight  
Precision machined contacts

4-40 UNC threaded rear spacer



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

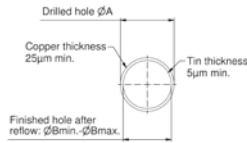
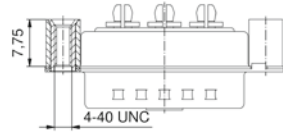
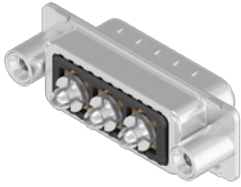
3W3	30	100	3.11	47	E228329	3	3F3SSA22SP1AA0X	3F3SPA22SP1AA0X
			3.25				3F3SSA22SP2AA0X	3F3SPA22SP2AA0X
			3.20				3F3SSA22SP4AA0X	3F3SPA22SP4AA0X
5W5	30	100	3.11	47	E228329	3	5F5SSA22SP1AA0X	5F5SPA22SP1AA0X
			3.25				5F5SSA22SP2AA0X	5F5SPA22SP2AA0X
			3.20				5F5SSA22SP4AA0X	5F5SPA22SP4AA0X
8W8	30	100	3.11	47	E228329	3	8F8SSA22SP1AA0X	8F8SPA22SP1AA0X
			3.25				8F8SSA22SP2AA0X	8F8SPA22SP2AA0X
			3.20				8F8SSA22SP4AA0X	8F8SPA22SP4AA0X

Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

# FILTER COMBINATION D-SUB CONNECTORS C-Filter

Press-fit contact straight  
Precision machined contacts

## 4-40 UNC threaded rear spacer, coded version



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

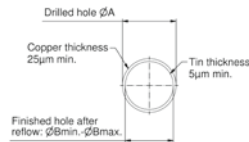
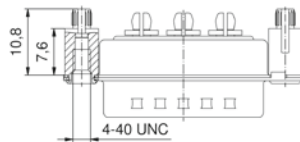
Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Hole diameter PCB [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	30	100	3.25	3.11	E228329	3	2F2CSA22SP1AA0X	2F2CPA22SP1AA0X
				47			2F2CSA22SP2AA0X	2F2CPA22SP2AA0X
				3.20			2F2CSA22SP4AA0X	2F2CPA22SP4AA0X
3W3C	30	100	3.25	3.11	E228329	3	3F3CSA22SP1AA0X	3F3CPA22SP1AA0X
				47			3F3CSA22SP2AA0X	3F3CPA22SP2AA0X
				3.20			3F3CSA22SP4AA0X	3F3CPA22SP4AA0X

Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

## 4-40 UNC rear press-fit spacer



For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

3W3	30	100	3.25	3.11	E228329	3	3F3SSA22SP1W40X	3F3SPA22SP1W40X
				47			3F3SSA22SP2W40X	3F3SPA22SP2W40X
				3.20			3F3SSA22SP4W40X	3F3SPA22SP4W40X
5W5	30	100	3.25	3.11	E228329	3	5F5SSA22SP1W40X	5F5SPA22SP1W40X
				47			5F5SSA22SP2W40X	5F5SPA22SP2W40X
				3.20			5F5SSA22SP4W40X	5F5SPA22SP4W40X
8W8	30	100	3.25	3.11	E228329	3	8F8SSA22SP1W40X	8F8SPA22SP1W40X
				47			8F8SSA22SP2W40X	8F8SPA22SP2W40X
				3.20			8F8SSA22SP4W40X	8F8SPA22SP4W40X

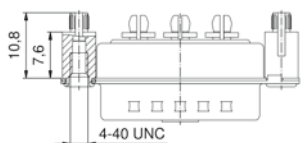
  

Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

# FILTER COMBINATION D-SUB CONNECTORS C-Filter

Press-fit contact straight  
Precision machined contacts

4-40 UNC rear press-fit spacer, coded version



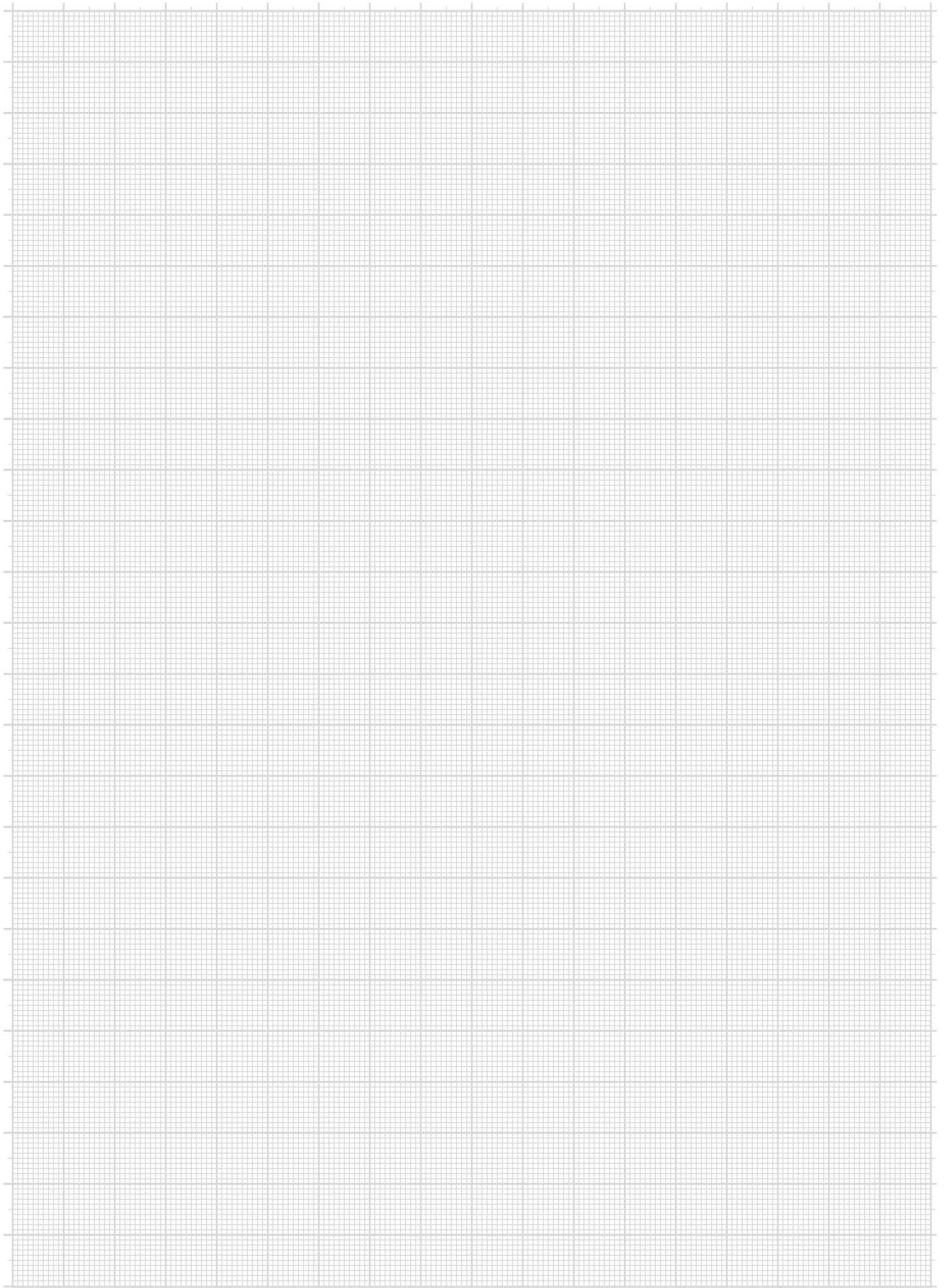
For other capacitance values refer to the part number creator.

Capacitance value	Code
100 nF	28
47 nF	22
12 nF	14
10 nF	12
5 nF	08
1.3 nF	05

Shell: Steel tin plated  
Quality class: 3 (A) = 50 mating cycles  
On request:  
• higher DWV  
• Quality class: 1 (C) = 500 mating cycles  
• M3 thread

No. of poles	Current rating [A]	Working voltage [VDC]	Hole diameter PCB [mm]	Capacitance [nF]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	30	100	3.11	47	E228329	3	2F2CSA22SP1W40X	2F2CPA22SP1W40X
			3.25				2F2CSA22SP2W40X	2F2CPA22SP2W40X
			3.20				2F2CSA22SP4W40X	2F2CPA22SP4W40X
3W3C	30	100	3.11	47	E228329	3	3F3CSA22SP1W40X	3F3CPA22SP1W40X
			3.25				3F3CSA22SP2W40X	3F3CPA22SP2W40X
			3.20				3F3CSA22SP4W40X	3F3CPA22SP4W40X

Termination Code	ø A	ø B min.	ø B max.
P1	3.13	2.96	3.11
P2	3.27	3.10	3.25
P4	3.22	3.02	3.20

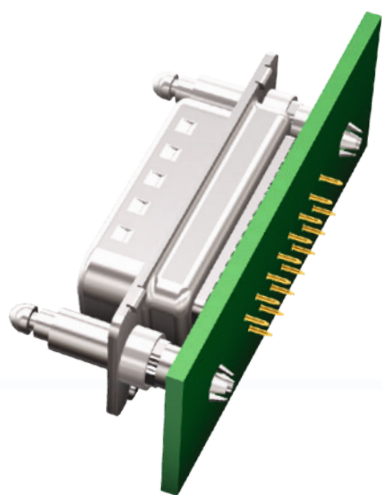




SECTION 5

# D-SUB HOODS AND ACCESSORIES





**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast, surface nickel plated**  
Straight cable entry, with cable sleeve

4-40 UNC short screw

No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			31.7	30			E202784	165X17409X
15			40	32		5		165X17419X
25	1	/	53.7	35	15	7		165X17429X
37			70.2	41		7		165X17439X
50			67.8	17.7	9.3			165X17449X

On request:  
• M3 thread

4-40 Unc jack screw

09			31.7	45.1			E202784	165X17309X
15			40	48.2		5		165X17319X
25	1	/	53.7	51.3	15	7		165X17329X
37			70.2	54.4		7		165X17339X
50			67.8	57.5	17.7	9.3		165X17349X

**D-SUB Metal Hoods, Zinc die-cast, surface nickel plated**  
Side cable entry, with cable sleeve

4-40 UNC short screw

								Part No.
09			31.8	39.5			E202784	165X17559X
15			40.3	41		5		165X17569X
25	/	1	54	45	15.4	7		165X17579X
37			70.2	48		7		165X17589X
50			67.8	18.5	9.3			165X17599X

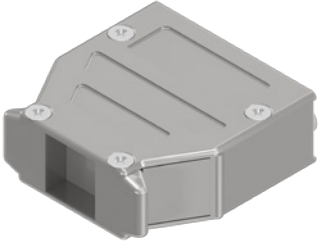
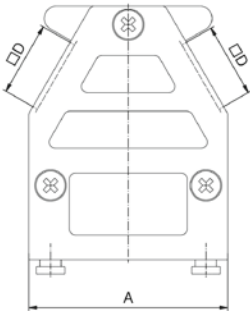
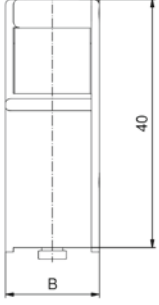
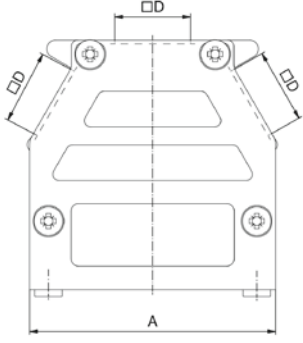


**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

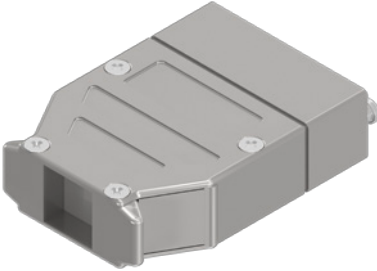
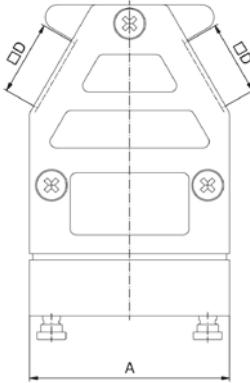
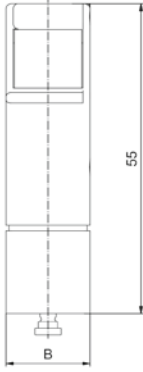
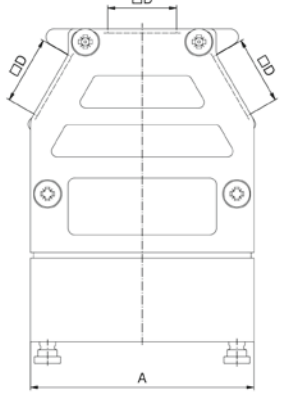
**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Cable clamp must be ordered separately  
On request:  
• Crimp flange


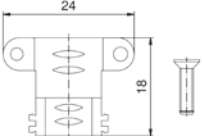
**Type 1 without jack screws**

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure D [mm]	UL-File	Part No.
   	09	/			32			E202784	165X10819X
	15				39.3	14.8	12.1		165X10829X
	25	2			53.2				165X10839X
	37	1			69.5				165X10849X
	50				67	17.8	14.6		165X10859X

**Type 2 without jack screws**

   	09	/			32			E202784	165X11159X
	15				39.3	14.8	12.1		165X10869X
	25	2			53.2				165X10879X
	37	1			69.5				165X10889X
	50				67	17.8	14.6		165X10899X

**Cable clamp**

		No. of poles	Cable diameter	Part No.
 	09-37		3-12 mm	160X11189X
	50		5-14 mm	160X11199X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Type 1 Jack screws

Cable clamp must be ordered separately  
On request:  
• M3 thread  
• Crimp flange

Type 1 Jack screws		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
		09	/	31	35.5					165X11609X
		15	1	39.4						165X11619X
		25	1	53.2	40	14.8	12.1		E202784	165X11629X
		37	2	69.6						165X11639X
		50		67	42	17.8	14.6			165X11649X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

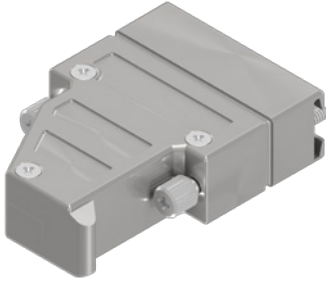
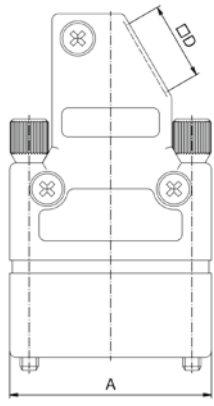
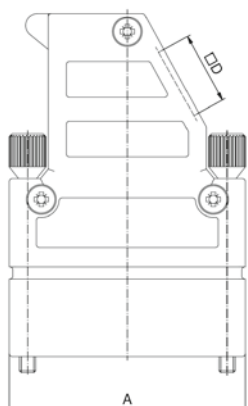
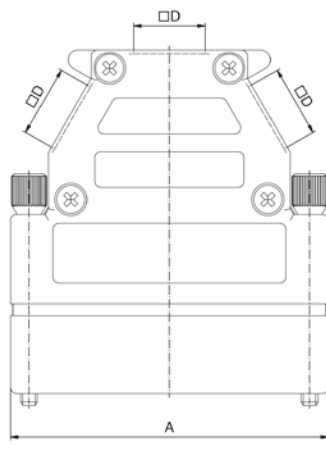
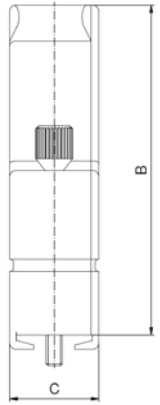
**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Type 2 Jack screws

Cable clamp must be ordered separately  
On request:  
• M3 thread  
• Crimp flange

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

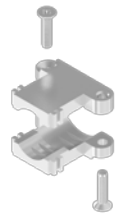
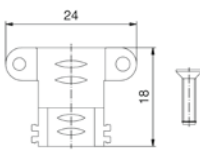
Part No.

    	09	/	31	50.5					165X14409X
	15	1	39.4						165X14419X
	25	1	53.2	55	14.8	12.1	E202784		165X14429X
	37	2	69.6						165X14439X
	50		67	57	17.8	14.6			165X14449X

Cable clamp

No. of poles

Cable diameter

 	09-37	3-12 mm	160X11189X
	50	5-14 mm	160X11199X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Cable clamp must be ordered separately  
On request:  
• Crimp flange

Slide lock

No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure D [mm]	UL-File
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Part No.

	09	/	32			E202784	165X11659X
	15		39.3				165X11669X
	25	2	53.2	14.8	12.1		165X11679X
	37	1	69.5				165X11689X
	50		67	17.8	14.6		165X11699X

Cable clamp

No. of poles      Cable diameter

	09-37	3-12 mm	160X11189X
	50	5-14 mm	160X11199X

Locking hooks for slide lock

	09-37		165X10119X
	50		165X10129X

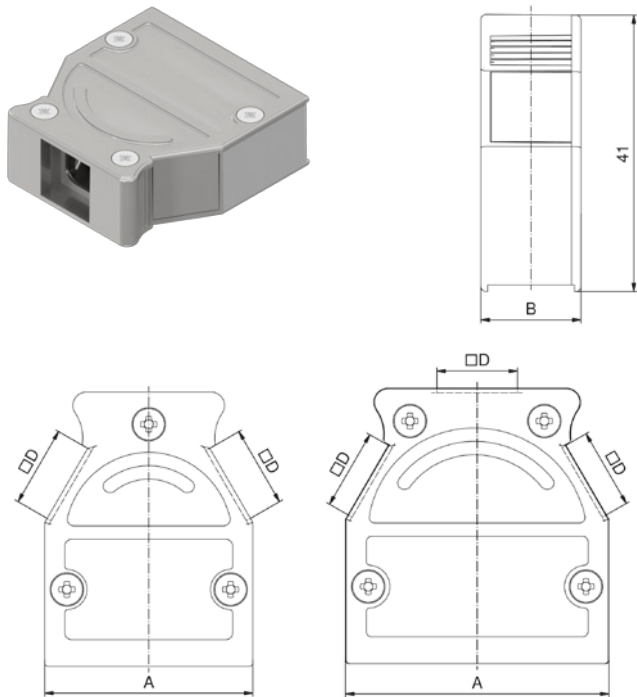



**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

**D-SUB Metal Hoods, Zinc die-cast**  
Variable cable entries

Without jack screw, internal ground

Cable clamp must be ordered separately

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure D [mm]	UL-File	Part No.
	09	/		31				E202784	600X51109X
	15			39		14.8	12 x 0.9		600X51115X
	25	2		53					600X51125X
	37	1		69.5					600X51137X
	50			67	17.6	14.3 x 11.6			600X51150X
<b>Cable clamp</b>		<i>No. of poles</i>		<i>Cable diameter</i>					
	09-37		3-12 mm		160X10139X				
	50		5-14 mm		160X10149X				

# D-SUB HOODS AND ACCESSORIES

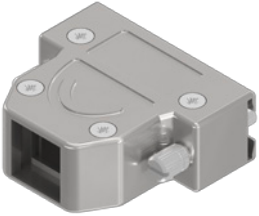
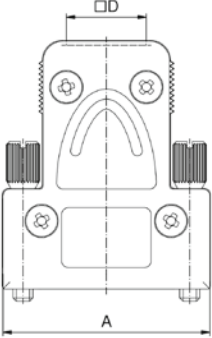
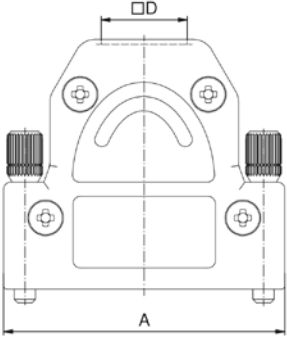
## D-SUB Metal Hoods, Zinc die-cast Variable cable entries

Cable clamp must be ordered separately  
On request:  
• M3 thread

4-40 UNC jack screw

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File


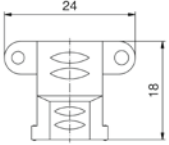
Part No.

  	09		31	37.2	15	8 x 9.00	600X51209X
	15	1	39	35.2		11 x 9.00 E202784	600X51215X
	25	2	53	42.7	14.8	11.5 x 9.00	600X51225X

Cable clamp

No. of poles

Cable diameter

 	09-37	3-12 mm	160X10139X
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**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

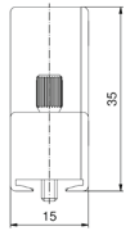
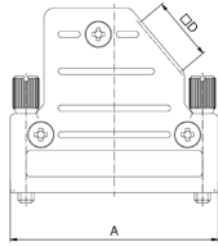
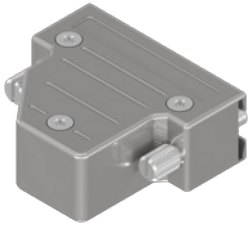
**D-SUB Metal Hoods, Zinc die-cast**  
Side cable entry, jack screws

Cable clamp must be ordered separately  
On request:  
• M3 thread

With jack screw, internal ground

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure D [mm]  
UL-File

Part No.



09

15

25

/

1

31

39

53

10 x 9.2

12 x 9.2

E202784

600X51309X

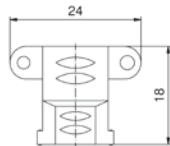
600X51315X

600X51325X

Cable clamp

No. of poles

Cable diameter



09-25

3-12 mm

160X10139X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

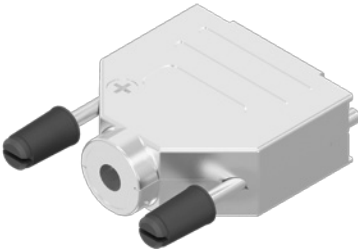
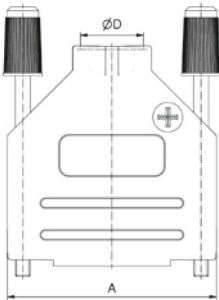
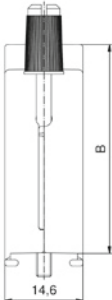
D-SUB Metal Hoods, Zinc die-cast, surface nickel plated  
Straight cable entry, plastic strain relief

Attenuation factor: > 40 dB between 30 Mhz and 1 GHz  
On request:  
• M3 thread

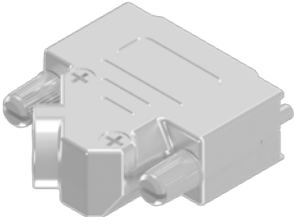
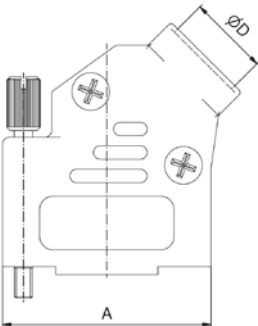
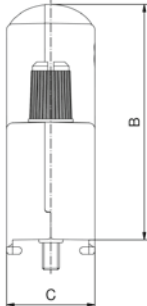
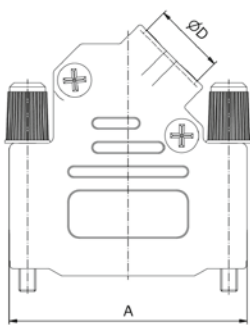
4-40 UNC jack screw

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure D [mm]  
UL-File

Part No.

  	09	1	/	31.2	38.3	4 - 13	E202784	165X02609X
	15			39.3	40.5			165X02619X
	25			53.4	47.8			165X02629X
	37			69.9	52.2			165X02639X

4-40 UNC jack screw

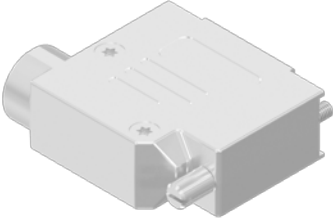
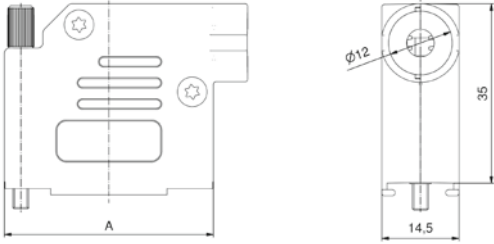
   	09	/	1	31	36.2	4 - 13	E202784	165X02689X
	15			39.5	40.2			165X02699X
	25			53.2	40.2			165X02709X
	37			69.7				165X02719X

**D-SUB HOODS AND ACCESSORIES**  
EMI / RFI shielding

D-SUB Metal Hoods, Zinc die-cast, surface nickel plated  
Side cable entry, plastic strain relief

4-40 UNC jack screw

Attenuation factor: > 40 dB between 30 Mhz and 1 GHz  
On request:  
• M3 thread


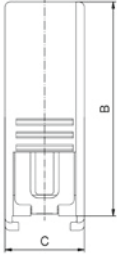
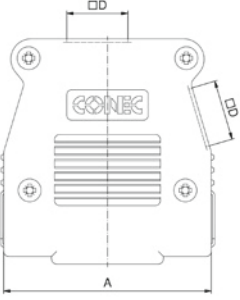
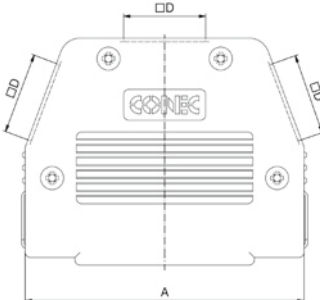
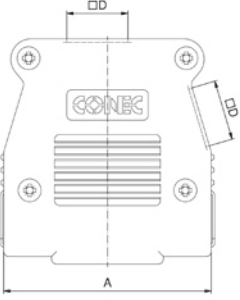
		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Part No.
		09			37.7	16-002730
		15	/	1	46	16-002740

**D-SUB HOODS AND ACCESSORIES**  
CONEC SnapLock

D-SUB Plastic Hoods, unshielded  
Variable cable entries

SnapLock, plastic black

For hood to hood connection please order connection bolts separately

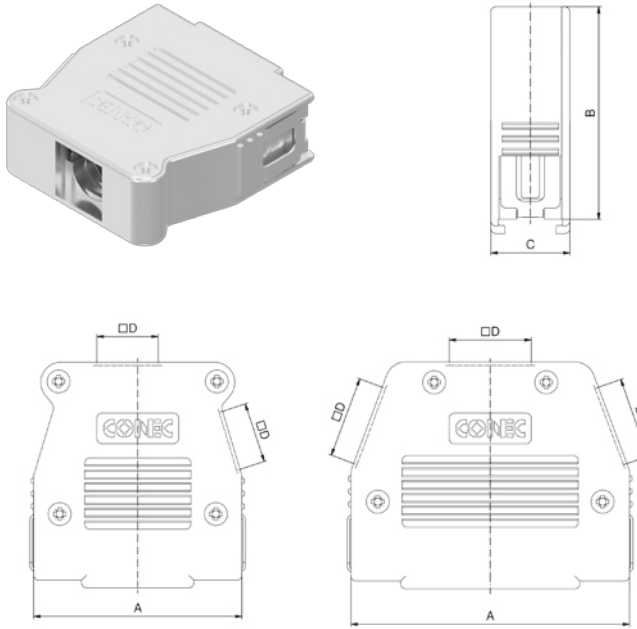
		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
		09			32.5			8.5	16-001810
		15		1	40.8			10	16-001820
		25	1		54.4		15.4		16-001830
		37		2	70.9			11	16-001840
		50			68.5		18.4	12	16-001850

## D-SUB HOODS AND ACCESSORIES CONEC SnapLock

### D-SUB Plastic Hoods, shielded Variable cable entries

SnapLock, plastic metallized

For hood to hood connection please order connection bolts separately

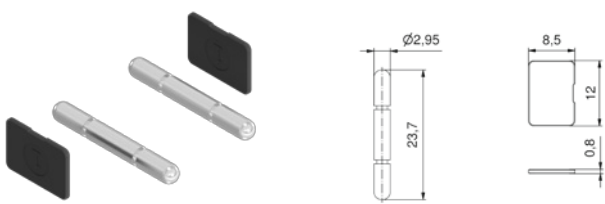
SnapLock, plastic metallized		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
	09			1	32.5			8.5	16-001750
	15				40.8			10	16-001760
	25	1			54.4	41.5	15.4		16-001770
	37			2	70.9			11	16-001780
	50				68.5		18.4	12	16-001790

## D-SUB HOODS AND ACCESSORIES CONEC SnapLock

### Kit Encoding Connection bolts for SnapLock

Locking Kit hood-to-hood

Part No.

									16-002200
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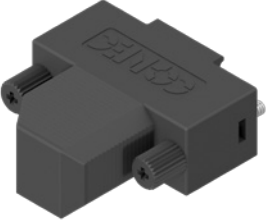
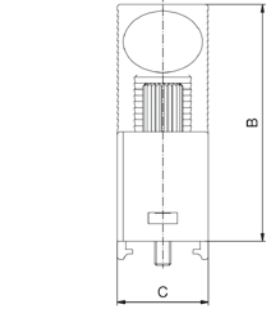
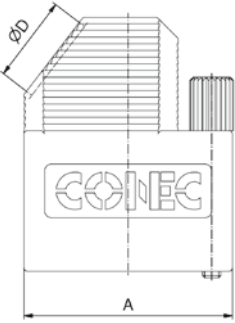
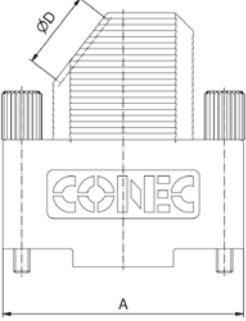
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, unshielded Side cable entry

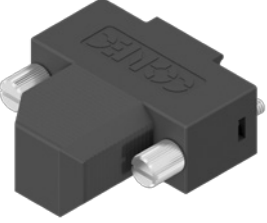
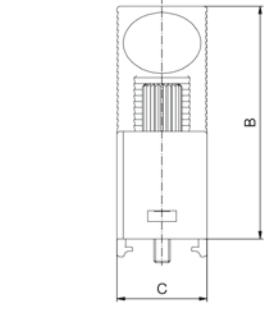
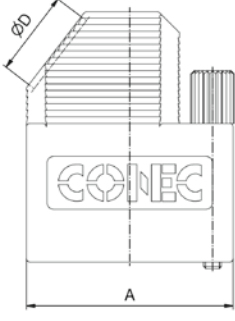
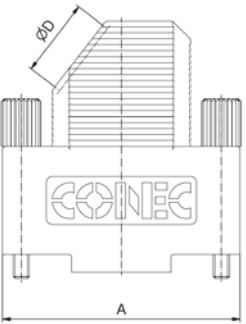
Plastic black, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

   	09			31.3			8	E202784	165X11709X
	15			39.62			9		165X11719X
	25	/	1	53.52	39.15	15	11		165X11729X
	37			69.8					165X11739X
	50			67.41	19	14.5			165X11749X

Plastic black, jack screws 4-40 UNC

   	09			31.3			8	E202784	165X00829A
	15			39.62		15	9		165X00839A
	25	/	1	53.52	39.15		11		165X00849A
	37			69.8					165X00859A
	50			67.41	19	14.5			165X00869A



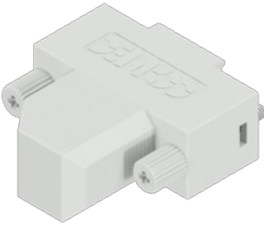
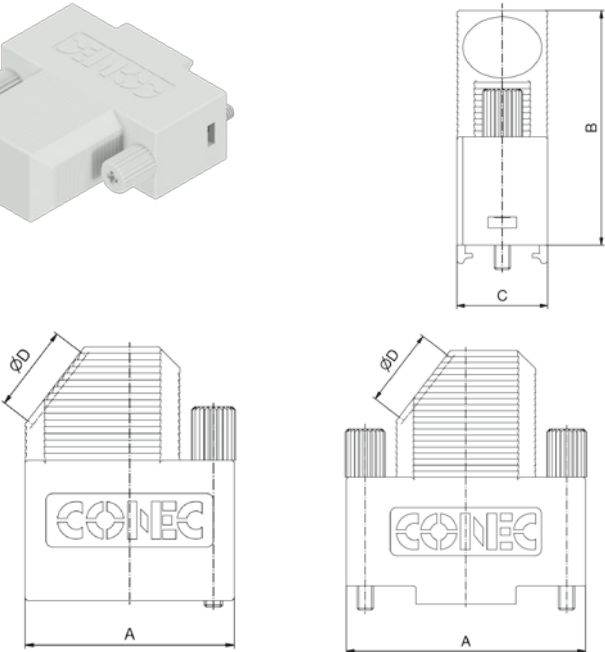
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, unshielded Side cable entry

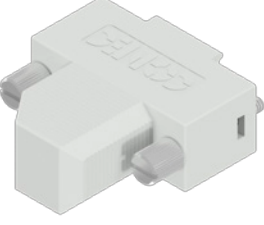
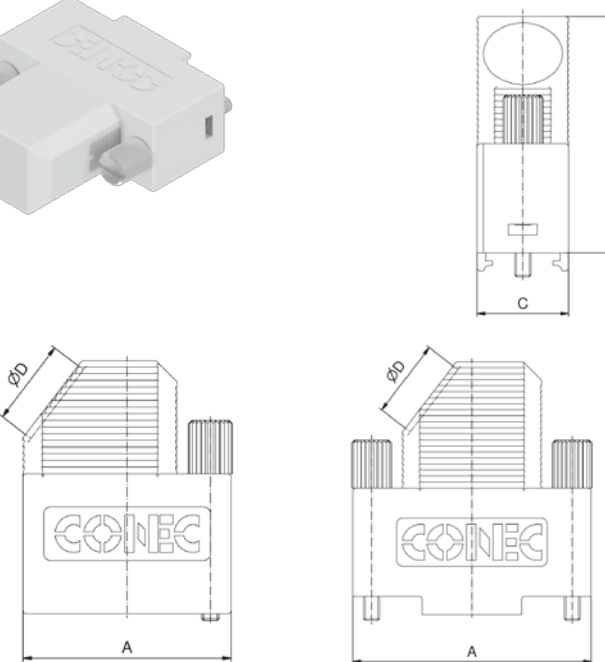
Plastic grey, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

 	09			31.3			8	E202784	165X16019X
	15			39.62			9		165X16029X
	25	/	1	53.52	39.15	15	11		165X16039X
	37			69.8					165X16049X
	50			67.41		19	14.5		165X16059X

Plastic grey, jack screws 4-40 UNC

 	09			31.3			8	E202784	165X16069X
	15			39.62			9		165X16079X
	25	/	1	53.52	39.15	15	11		165X16089X
	37			69.8					165X16099X
	50			67.41		19	14.5		165X16109X

## D-SUB HOODS AND ACCESSORIES

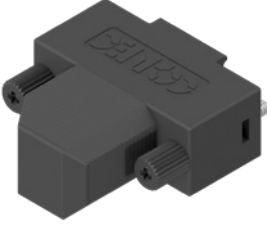
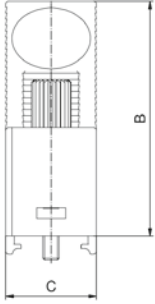
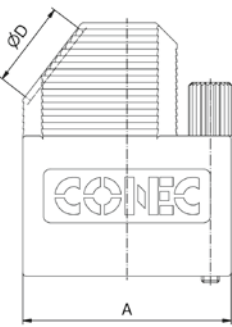
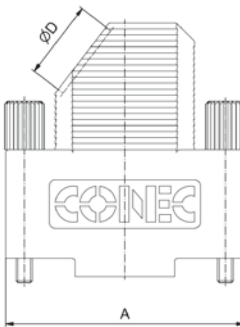
### D-SUB Plastic Hoods, shielded Side cable entry

Attenuation factor at 10 MHz > 60dB

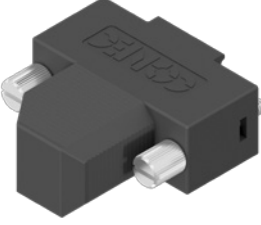
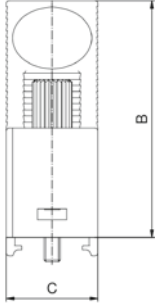
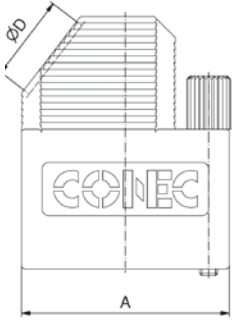
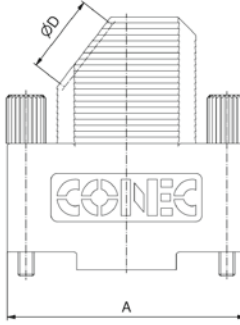
Plastic black, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

   	09			31.3			8	E202784	165X11759X
	15			39.62			9		165X11769X
	25	/	1	53.52	39.15	15	11		165X11779X
	37			69.8					165X11789X
	50			67.41	19	14.5			165X11799X

Plastic black, jack screws 4-40 UNC

   	09			31.3			8	E202784	165X00779A
	15			39.62			9		165X00789A
	25	/	1	53.52	39.15	15	11		165X00799A
	37			69.8					165X00809A
	50			67.41	19	14.5			165X00819A

## D-SUB HOODS AND ACCESSORIES

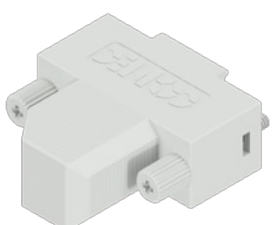
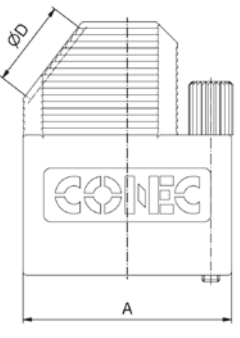
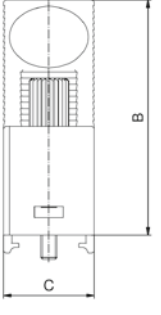
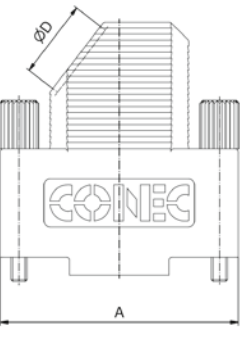
### D-SUB Plastic Hoods, shielded Side cable entry

Attenuation factor at 10 MHz > 60dB

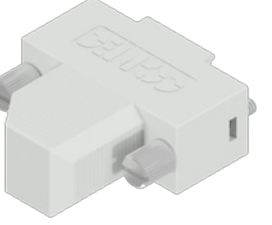
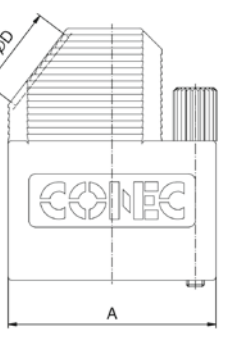
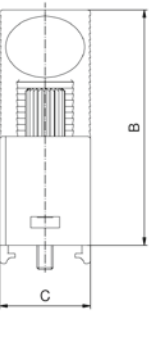
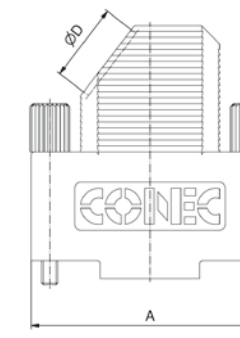
Plastic grey, jack screws with plastic head 4-40 UNC

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

				09			31.3			8	E202784	165X16119X
				15			39.62			9		165X16129X
				25	/	1	53.52	39.15	15	11		165X16139X
				37			69.8					165X16149X
				50			67.41	19	14.5			165X16159X


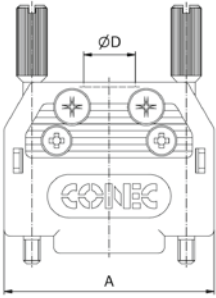
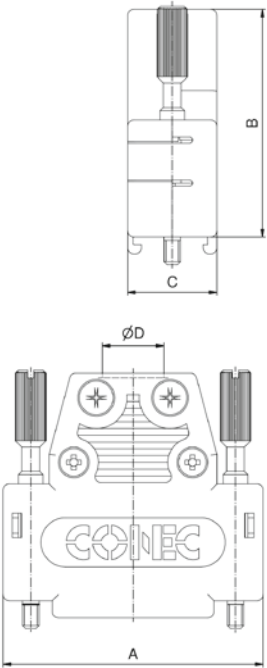
Plastic grey, jack screws 4-40 UNC

				09			31.3			8	E202784	165X16169X
				15			39.62			9		165X16179X
				25	/	1	53.52	39.15	15	11		165X16189X
				37			69.8					165X16199X
				50			67.41	19	14.5			165X16209X


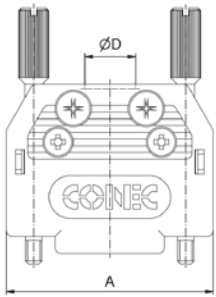
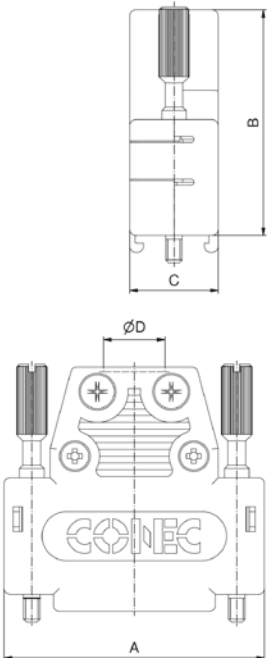
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoodss, two part Straight cable entry

Plastic black, 4-40 UNC jack screws

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
  	09			34	25		8.5	E202784	165X10139X	
	15			42.3			10		165X10149X	
	25	1	/	56	37	14.5	10.5		165X10159X	
	37			72.5					165X10169X	
	50			67	49.1	19.8	14		165X10179X	

Plastic metallized, 4-40 UNC jack screws


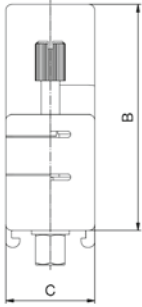
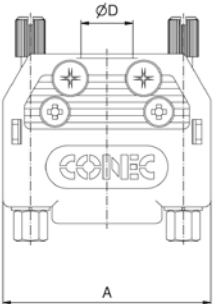
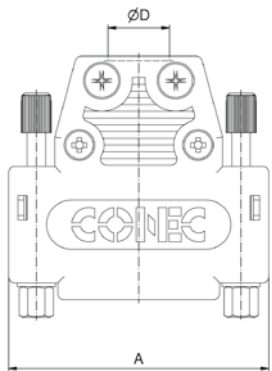
  	09			34	25		8.5	E202784	165X10909X
	15			42.3			10		165X10919X
	25	1	/	56	37	14.5	10.5		165X10929X
	37			72.5					165X10939X
	50			67	49.1	19.8	14		165X10949X

Integrated cable clamping  
On request:  
• M3 thread


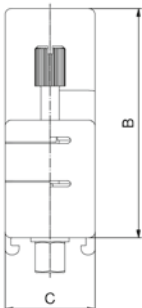
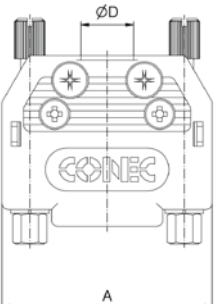
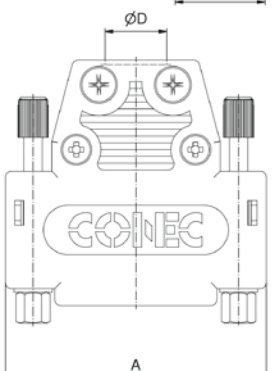
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, two part Straight cable entry, Cable-to-cable connection

Plastic black, 4-40 UNC jack screws 4-40 UNC hex bolt

								No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
								09	15	25	37	50	1	1	1	1
																165X10239X
																165X10249X
																165X10259X
																165X10269X
																165X10279X

Plastic metallized, 4-40 UNC jack screws 4-40 UNC hex bolt

								No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
								09	15	25	37	50	1	1	1	1
																165X11009X
																165X11019X
																165X11029X
																165X11039X
																165X11049X

Integrated cable clamping  
On request:  
• M3 thread

**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors


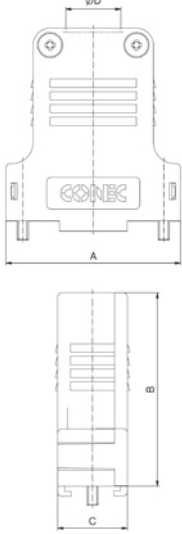
**D-SUB Plastic Hoods, large internal space**  
Straight cable entry

Large internal space for crimp, high power and coaxial contacts  
On request:  
• M3 thread


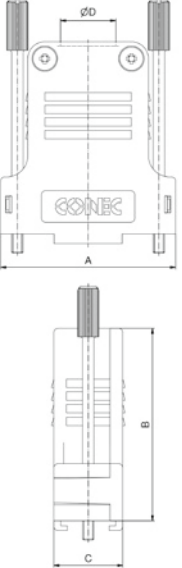
Plastic black, 4-40 UNC short screw

No. of poles  
Number of straight cable entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File


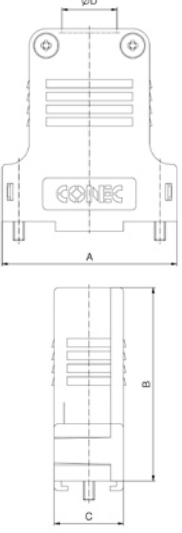
Part No.

		09	1	/	32.9	39.5	11	E202784	165X13369X	
		15			41.2	45.5			16.3	165X13379X
		25			54.9	52.5			12	165X13389X
		37			71.4	55.5			15	165X13399X
		50			69	55			14	165X13409X

Plastic black, 4-40 UNC jack screws

		09	1	/	32.9	39.5	11	E202784	165X03309A	
		15			41.2	45.5			16.3	165X03319A
		25			54.9	52.5			12	165X03329A
		37			71.4	55.5			15	165X03339A
		50			69	55			14	165X03349A

Plastic metallized, 4-40 UNC short screws

		09	1	/	32.9	39.5	11	E202784	165X13469X	
		15			41.2	45.5			16.3	165X13479X
		25			54.9	52.5			12	165X13489X
		37			71.4	55.5			15	165X13499X
		50			69	55			14	165X13509X

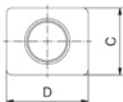
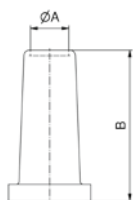
**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors

**D-SUB Plastic Hoods, large internal space**

Cable grommet for 9 - 50 pos. hood

No. of poles  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]

Part No.




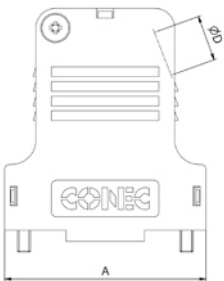
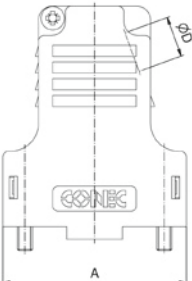
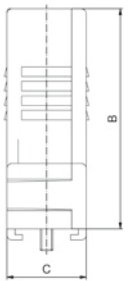
09/15	5	24.5	11.2	11.2	795-907600
25/37	7	27.5	12.2	15	795-907700
50	9.3	29.2	15	20	795-907800



**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors


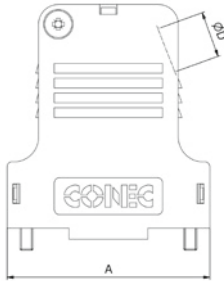
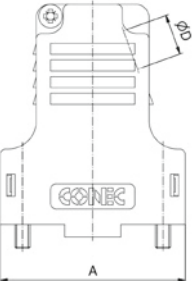
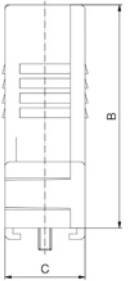
**D-SUB Plastic Hoods, large internal space**  
Side cable entry

Plastic black, 4-40 UNC short screws

 		 		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
				Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]		
09				32.9	39.5		8.6	E202784	165X13419X	
15				41.2	45.5	16.4	9.4		165X13429X	
25	/	1		54.9	52.5		13		165X13439X	
37				71.4	55	18.8	15		165X13449X	
50				69	19.6	14.9			165X13459X	

Large internal space for crimp, high power and coaxial contacts  
On request:  
• M3 thread


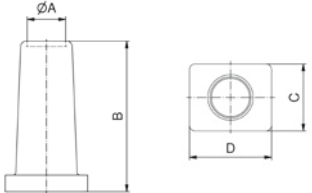
Plastic metallized, 4-40 UNC short screws

 		 		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
				Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]		
09				32.9	39.5		8.6	E202784	165X13519X	
15				41.2	45.5	16.4	9.4		165X13529X	
25	/	1		54.9	52.5		13		165X13539X	
37				71.4	55	18.8	15		165X13549X	
50				69	19.6	14.9			165X13559X	

**D-SUB HOODS AND ACCESSORIES**  
Suitable for Combination D-SUB Connectors

**D-SUB Plastic Hoods, large internal space**  
Side cable entry


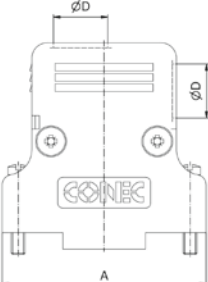
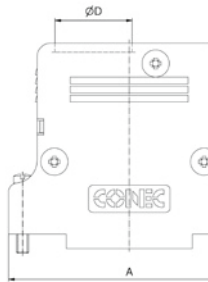


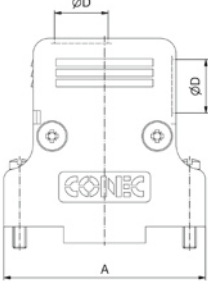
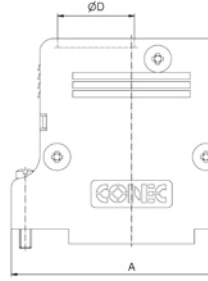
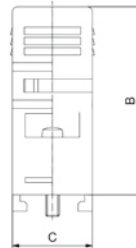
Cable grommet for 9 - 50 pos. hood

 		No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
		Number of straight cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	
09/15	5	24.5	11.2	11.2		795-907600	
25/37	7	27.5	12.2	15		795-907700	
50	9.3	29.2	15	20		795-907800	


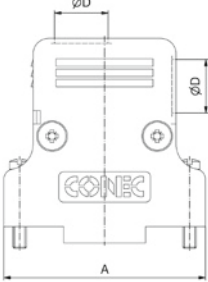
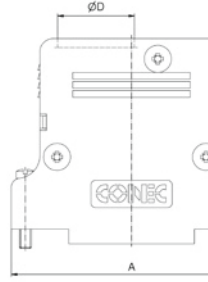
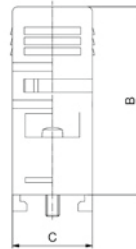

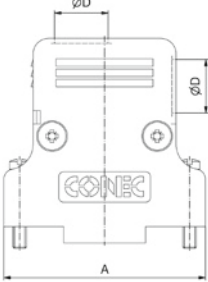
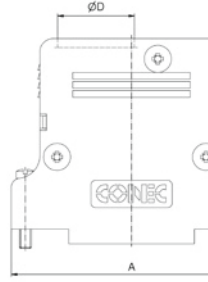
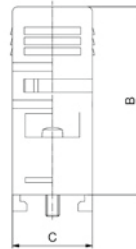
## D-SUB HOODS AND ACCESSORIES

### D-SUB Plastic Hoods, fixed screws Variable cable entries

Plastic grey, 4-40 UNC short screws

   	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
	   	09	/		31.2	31.8			
15				39.5	37		8		165X11879X
25		1		53.2		15.6		E202784	165X11889X
37			1	69.7	42.2		10		165X11899X
50				67.3	18.5	12.5			165X11909X

Plastic metallized, 4-40 UNC short screws

   	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
	   	09	/		31.2	31.8			
15				39.5	37		8		165X11929X
25		1		53.2		15.6		E202784	165X11939X
37			1	69.7	42.2		10		165X11949X
50				67.3	18.5	12.5			165X11959X

Integrated cable clamping

## D-SUB HOODS AND ACCESSORIES


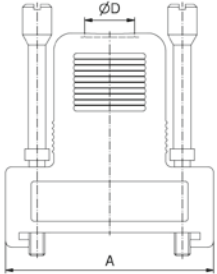
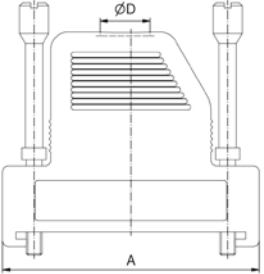
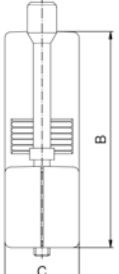
### D-SUB Plastic Hoods, low profile Straight cable entry

Space-saving, side-by-side mounting  
Packaging: in pack units as a single package

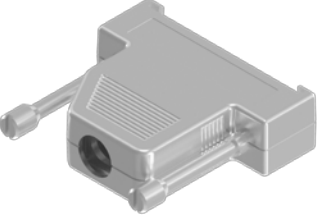
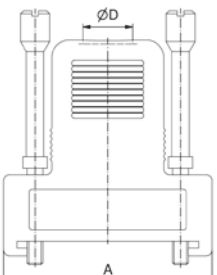
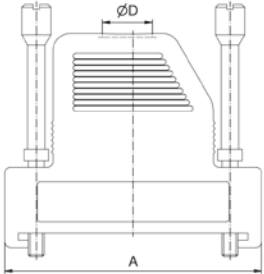
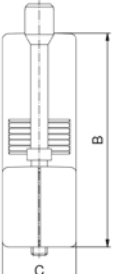
Plastic black, 4-40 UNC jack screws

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

		09		35.8	37				165X16219X
		15		44.1	38		8		165X16229X
		25	1	/	57.9		12.6	E202784	165X16239X
		37			74.3	41		9	165X16249X
									

Plastic metallized, 4-40 UNC jack screws

		09		35.8	37				165X16299X
		15		44.1	38		8		165X16309X
		25	1	/	57.9		12.6	E202784	165X16319X
		37			74.3	41		9	165X16329X
									

## D-SUB HOODS AND ACCESSORIES


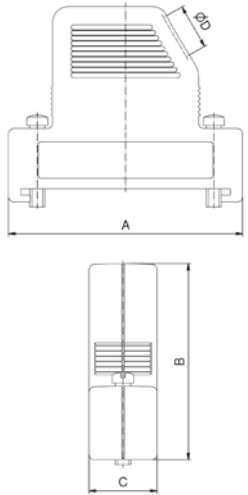
### D-SUB Plastic Hoods, low profile Side cable entry

Space-saving, side-by-side mounting  
Packaging: in pack units as a single package

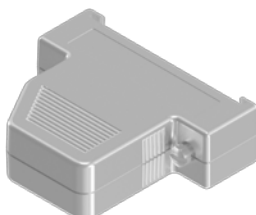
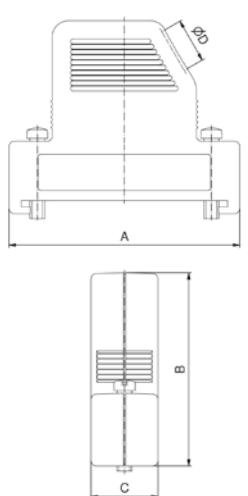
Plastic black, 4-40 UNC short screws

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

Part No.

		09		35.8	37					165X16379X	
		15		44.1	38		8			165X16389X	
		25	/	1	57.9		12.6		E202784		165X16399X
		37			74.3	41		9			165X16409X

Plastic metallized, 4-40 UNC short screws


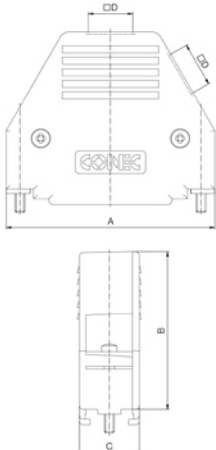
		09		35.8	37					165X16459X	
		15		44.1	38		8			165X16469X	
		25	/	1	57.9		12.6		E202784		165X16479X
		37			74.3	41		9			165X16489X

## D-SUB HOODS AND ACCESSORIES


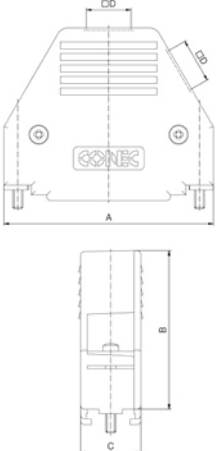
### D-SUB Plastic Hoods, integrated strain relief Straight and side cable entry

Plastic black, 4-40 UNC short screws

Entries not in use are blanked off with blanking plugs

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.	
		09			32	36.7		6.3	E202784	165X11239X	
		15			40	38.2		8		16.5	165X11249X
		25	1	1	54.2	42.2		10.5			165X11259X
		37			70.6			11.5			165X11269X
		50			68.2	47.2	20.6	13.7			165X16539X

Plastic black, slide lock version including spring

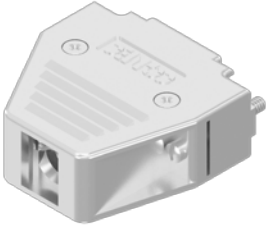
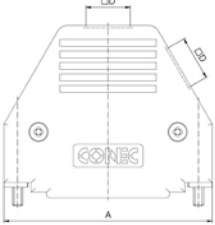
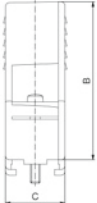
		09			32	36.7		6.3	E202784	165X11279X	
		15			40	38.2		8		16.5	165X11289X
		25	1	1	54.2	42.2		10.5			165X11299X
		37			70.6			11.5			165X11309X
		50			68.2	47.2	20.6	13.7			165X16549X

## D-SUB HOODS AND ACCESSORIES


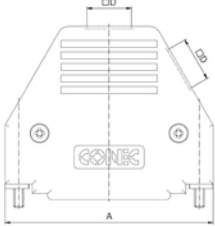
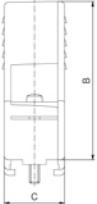
### D-SUB Plastic Hoods, integrated strain relief Straight and side cable entry

Entries not in use are blanked off with blanking plugs

Plastic metallized, 4-40 UNC short screws

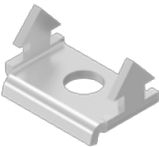

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
  	09			32	36.7			6.3	E202784	165X11319X
	15			40	38.2			8		165X11329X
	25	1	1	54.2	42.2	16.5		10.5		165X11339X
	37			70.6				11.5		165X11349X
	50			68.2	47.2	20.6		13.7		165X16559X

Plastic metallized, slide lock version including spring

  	09			32	36.7			6.3	E202784	165X11359X
	15			40	38.2			8		165X11369X
	25	1	1	54.2	42.2	16.5		10.5		165X11379X
	37			70.6				11.5		165X11389X
	50			68.2	47.2	20.6		13.7		165X16569X

Locking hooks for 9-50 pos. hood

No. of poles

 	09-37									165X10119X
	50									165X16609X

## D-SUB HOODS AND ACCESSORIES

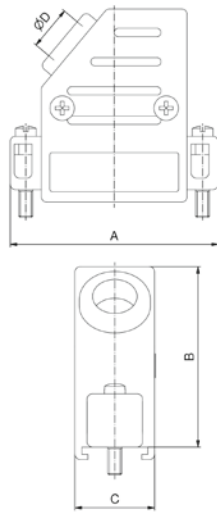
### D-SUB Plastic Hoods Side cable entry

Packaging: in pack units as a single package

Plastic black, 4-40 UNC short screws

No. of poles  
Number of straight cable  
entries  
Number of side cable entries  
Measure A [mm]  
Measure B [mm]  
Measure C [mm]  
Measure D [mm]  
UL-File

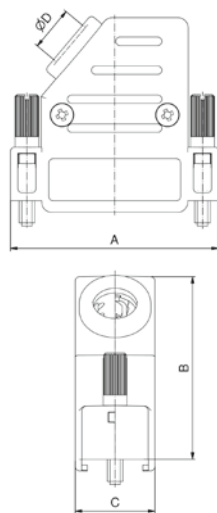
Part No.



09			31.5					
15			40	37			8.5	
25	/	1	53.5		15.2		11	E202784
37			70	41				
50			67.8		18.2		12	

600X54009X  
600X54015X  
600X54025X  
600X54037X  
600X54050X

Plastic black, 4-40 UNC jack screws



09			31.5					
15			40	37			8.5	
25	/	1	53.5		15.2		11	E202784
37			70	41				
50			67.8		18.2		12	

600X55009X  
600X55015X  
600X55025X  
600X55037X  
600X55050X

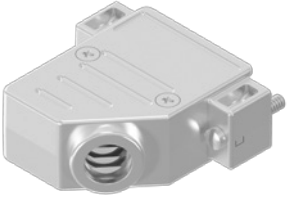
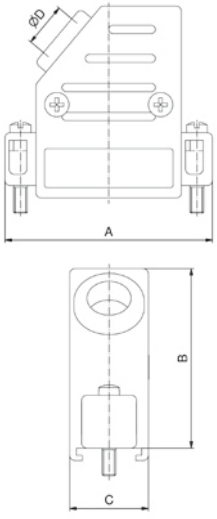


## D-SUB HOODS AND ACCESSORIES

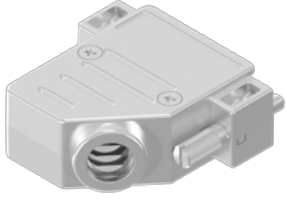
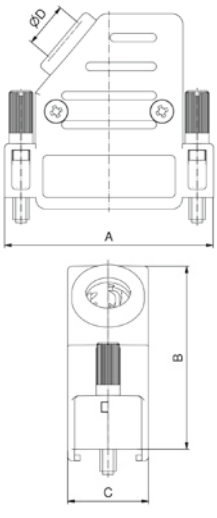
### D-SUB Plastic Hoods Side cable entry

Packaging: in pack units as a single package

Plastic metallized, 4-40 UNC short screws

		No. of poles	Number of straight cable entries		Number of side cable entries		Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
		09					31.5				E202784	600X56009X
		15					40	37		8.5		600X56015X
		25	/	1			53.5		15.2			600X56025X
		37					70	41		11		600X56037X
		50					67.8		18.2	12		600X56050X

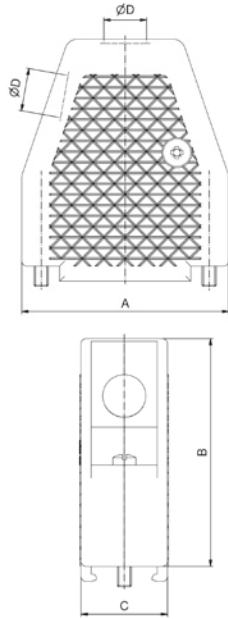
Plastic metallized, 4-40 UNC jack screws

		No. of poles	Number of straight cable entries		Number of side cable entries		Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
		09					31.5				E202784	600X57009X
		15					40	37		8.5		600X57015X
		25	/	1			53.5		15.2			600X57025X
		37					70	41		11		600X57037X
		50					67.8		18.2	12		600X57050X

## D-SUB HOODS AND ACCESSORIES

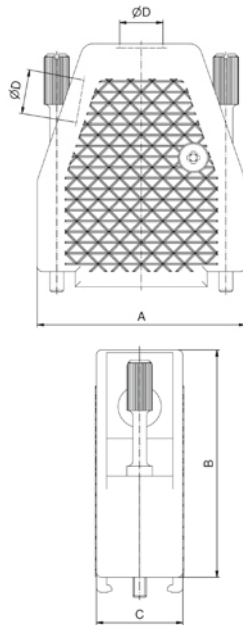
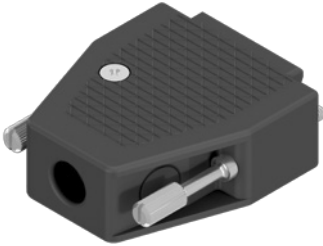
### D-SUB Plastic Hoods Straight and side cable entry

Plastic black, 4-40 UNC short screws



No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			33	45.5		7.5	E202784	165X13019X
15			41			8.5		165X13029X
25	1	1	55	47	17	10.5		165X13039X
37			71.3	51		11		165X13049X
50			69	50	20	12.5		165X13059X

Plastic black, 4-40 UNC jack screws




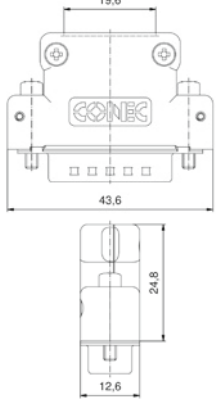
09			33	45.5		7.5	E202784	165X13079X
15			41			8.5		165X13089X
25	1	1	55	47	17	10.5		165X13099X
37			71.3	51		11		165X13109X
50			69	50	20	12.5		165X13119X

## D-SUB HOODS AND ACCESSORIES


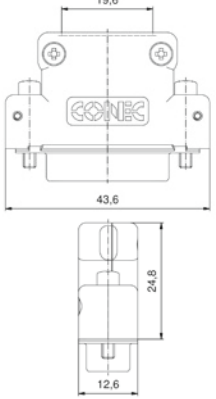
### D-SUB Plastic Hoods With integrated crimp connector 7W2

This hood can only be used in conjunction with the special connector.  
 • Integrated strain relief  
 On request:  
 • Available with bridged single contacts


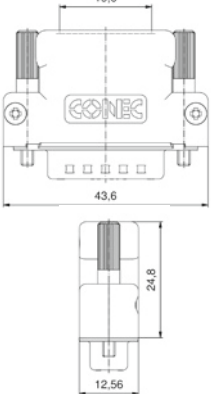
Plastic black, short screws Philips

	No. of poles	Number of straight cable entries	Number of side cable entries	Part No. Socket contact	Part No. Plug contact
 	7W2	1	/	13-000220	13-002780


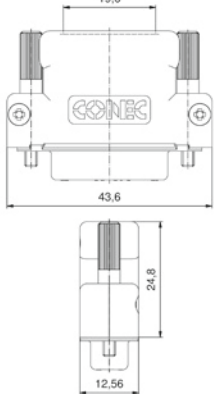
Plastic black, short screws Inbus

 	7W2	1	/	13-000210	13-002770
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Plastic black, jack screws Philips

 	7W2	1	/	13-000380	13-002760
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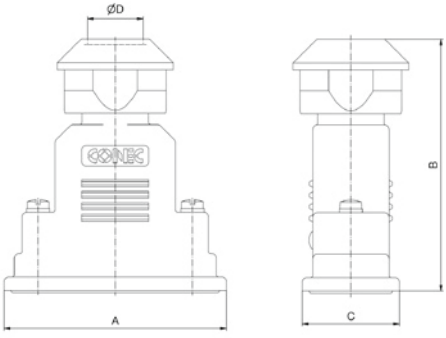
Plastic black, jack screws Inbus

 	7W2	1	/	13-000370	13-002750
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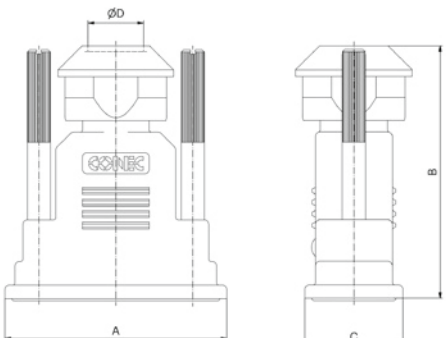
## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods Straight cable entry

Plastic black, 4-40 UNC short screws stainless steel

		No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
 	09				40	54.3		7 - 9	15-004710
	15				48	54.6	21	9 - 11	15-004720
	25	1	/		62	67.7		10 - 12	15-004730
	37				78	77.2	25.2	14 - 16	15-004740
	50				75.6	77.2	23.8	14 - 16	15-004750

Plastic black, 4-40 UNC jack screws stainless steel

 	15				40	54.3		7 - 9	15-004670
	25				62	67.7	21	10 - 12	15-004680
	37	1	/		78	77.2	25.2	14 - 16	15-004690
	50				75.6	77.2	23.8	14 - 16	15-004700

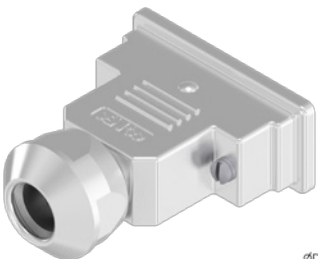
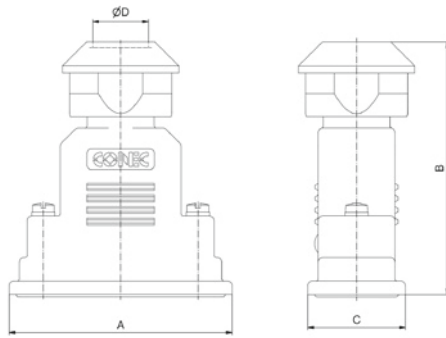
Water resistant hood for Standard and Combination D-SUB connectors  
For high power and coaxial contacts  
Packaging: in pack units as a single package

## D-SUB HOODS AND ACCESSORIES

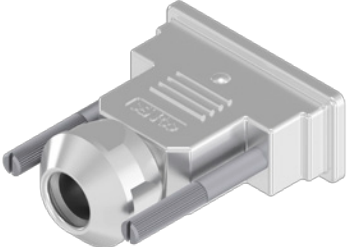
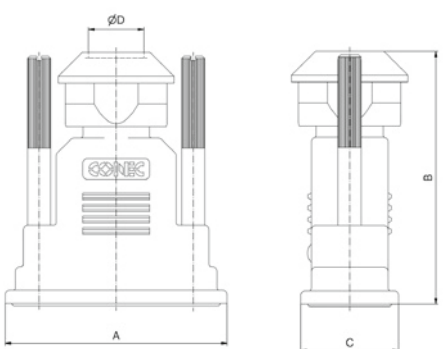
### IP67 D-SUB Plastic Hoods Straight cable entry

Water resistant hood for Standard and Combination D-SUB connectors  
For high power and coaxial contacts  
Packaging: in pack units as a single package

Plastic metallized, 4-40 UNC short screws stainless steel

	No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Part No.
 	09	1	/	40	54.3	21	7 - 9	15-004810
	15			48	54.6		9 - 11	15-004820
	25			62	67.7		10 - 12	15-004830
	37			78	77.2		14 - 16	15-004840
	50			75.6	23.8		14 - 16	15-004850

Plastic metallized, 4-40 UNC jack screws stainless steel

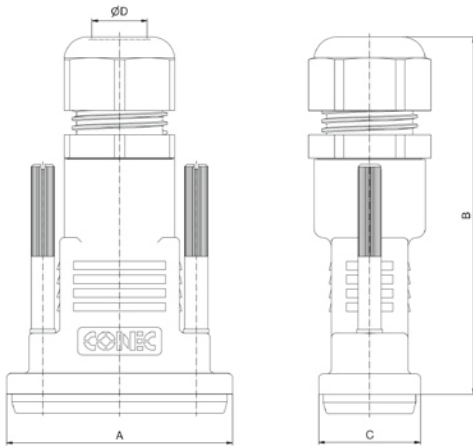
 	15	1	/	40	54.3	21	7 - 9	15-004770
	25			62	67.7		10 - 12	15-004780
	37			78	77.2		14 - 16	15-004790
	50			75.6	23.8		14 - 16	15-004800

## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods, large internal space Straight cable entry

Plastic black, 4-40 UNC jack screws

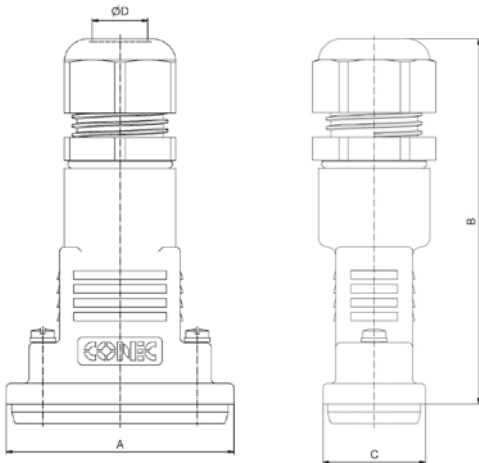
No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			40.76	77		5 - 10		165X14819X
15			49.06	79				165X14829X
25	1	/	62.8	87.5	22	6 - 12	E202784	165X14839X
37			78.86	99		9 - 16		165X14849X
50			76.46	107	24.8	13 - 20		165X14859X



Water resistant hood for Standard and Combination D-SUB connectors  
Large internal space for crimp, high power and coaxial contacts  
Accessories: Protection cap and Outside sealing made from TPE  
On request:  
• M3 thread

Plastic black, 4-40 UNC short screws

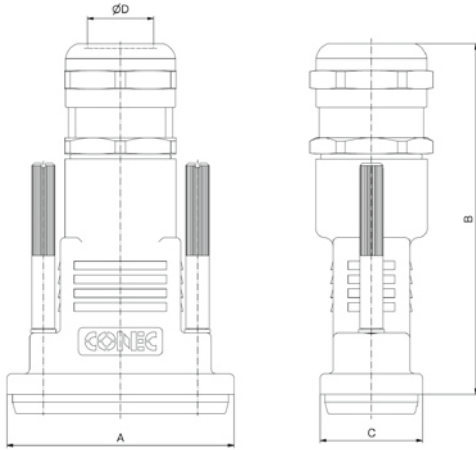
No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	Part No.
09			40.76	77		5 - 10		165X14869X
15			49.06	79				165X14879X
25	1	/	62.8	87.5	22	6 - 12	E202784	165X14889X
37			78.86	99		9 - 16		165X14899X
50			76.46	107	24.8	13 - 20		165X14909X



## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods, large internal space Straight cable entry

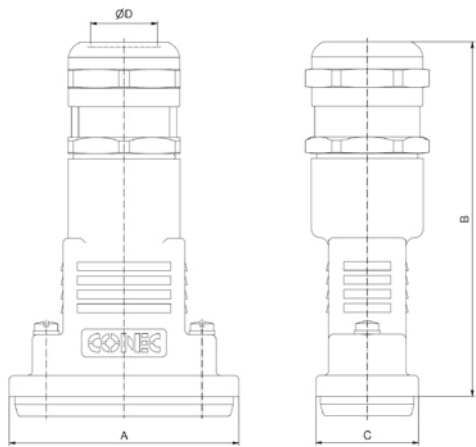
Plastic metallized, 4-40 UNC jack screws



No. of poles	Number of straight cable entries	Number of side cable entries	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	UL-File	
09			40.76	77		5 - 10		165X15019X
15			49.06	79				165X15029X
25	1	/	62.8	87.5	22	7 - 12	E202784	165X15039X
37			78.86	99		9 - 16		165X15049X
50			76.46	107	24.8	13 - 20		165X15059X

Water resistant hood for Standard and Combination D-SUB connectors  
Large internal space for crimp, high power and coaxial contacts  
Accessories: Protection cap and Outside sealing made from TPE  
On request:  
• M3 thread

Plastic metallized, 4-40 UNC short screws



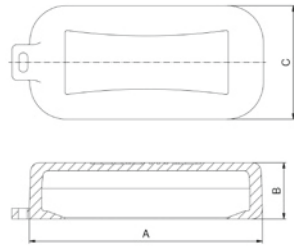
09			40.76	77		5 - 10		165X15069X
15			49.06	79				165X15079X
25	1	/	62.8	87.5	22	7 - 12	E202784	165X15089X
37			78.86	99		9 - 16		165X15099X
50			76.46	107	24.8	13 - 20		165X15109X



## D-SUB HOODS AND ACCESSORIES

### IP67 D-SUB Plastic Hoods, large internal space Straight cable entry

#### Protection cap

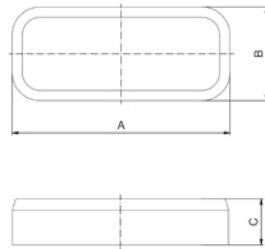


No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	UL-File
09	44.56	12.6	25.6	E202784
15	52.86			
25	66.6			
37	82.66			
50	80.26			
			28.4	

#### Part No.

165X17509X
165X17519X
165X17529X
165X17539X
165X17549X

#### Outside sealing



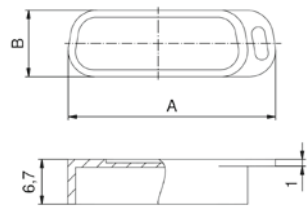
09	38.36	20	9.9	E202784
15	46.66			
25	60.4			
37	76.86			
50	74.5			

795-305420
795-305490
795-305580
795-305640
795-305710

## D-SUB HOODS AND ACCESSORIES

### D-SUB protection caps Plastic design, for socket connector

#### Plastic black

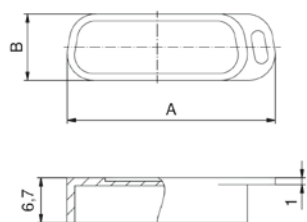


No. of poles	Measure A [mm]	Measure B [mm]
09	22.9	10
15	31.4	
25	44.7	
37	61.2	
50	58.8	12.8

#### Part No.

160X10449X
160X10459X
160X10469X
160X10479X
160X10959X

#### Plastic metallized



09	22.9	11
15	31.4	
25	44.7	
37	61.2	13.7
50	58.8	

600X518009X
600X518015X
600X518025X
600X518037X
600X518050X

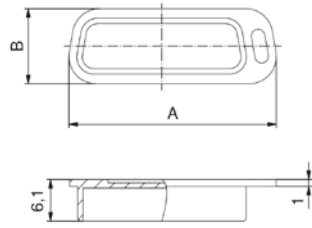
Dust cap protecting connector mounting area  
Temperature range: -35°C... +85°C

## D-SUB HOODS AND ACCESSORIES

### D-SUB protection caps Plastic design, for plug connector

Dust cap protecting connector mounting area  
Temperature range: -35°C... +85°C

#### Plastic black



No. of poles

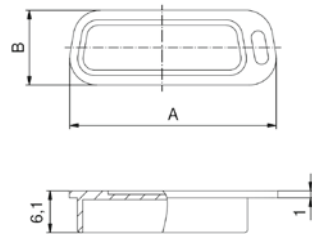
Measure A [mm]

Measure B [mm]

Part No.

09	22.5	10	160X10409X
15	30.65		160X10419X
25	44.4		160X10429X
37	60.75		160X10439X
50	58.15	12.8	160X10969X

#### Plastic metallized

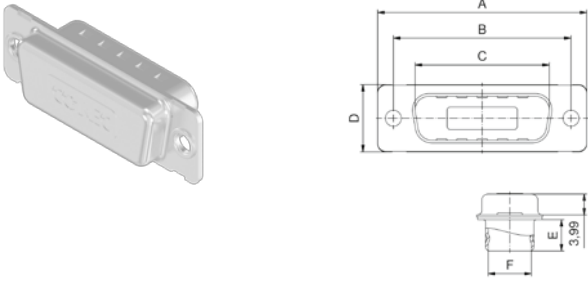


09	22.5	11	600X517009X
15	30.65		600X517015X
25	44.4		600X517025X
37	60.75		600X517037X
50	58.15	13.7	600X517050X

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap  
Metall design, shielded, for socket connector

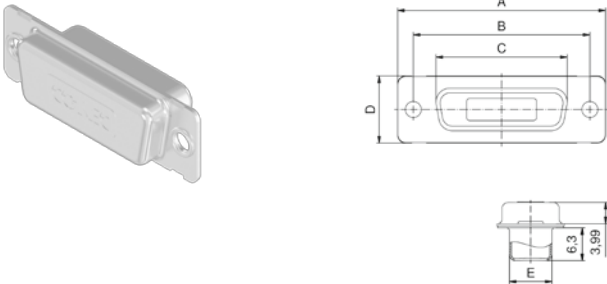
Through-hole Ø 3 mm

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Shielded cap protecting against EMI/RFI Shell: steel tin plated	
								Part No.	
	09	31.19	25	16.79	12.93	6.12	8.23	165X12969X	
	15	39.52	33.3	25.12				165X12979X	
	25	53.42	47.04	38.84				165X12989X	
	37	69.7	63.5	55.3				5.99	165X12999X
	50	67.31	61.1	52.68				15.75	10.95

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap  
Metall design, shielded, for plug connector

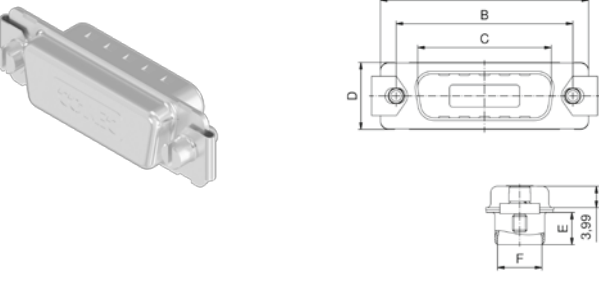
Through-hole Ø 3 mm

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Shielded cap protecting against EMI/RFI Shell: steel tin plated
							Part No.
	09	31.19	25	16.46	12.93	8.02	165X13129X
	15	39.52	33.3	24.79			165X13139X
	25	53.42	47.04	38.5			165X13149X
	37	69.7	63.5	54.96			165X13159X
	50	67.31	61.1	52.55			15.75

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap  
Metall design, shielded, for socket connector


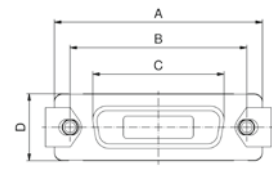
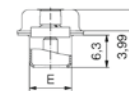
4-40 UNC screws and clip

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Shielded cap protecting against EMI/RFI Shell: steel tin plated	
								Part No.	
	09	31.19	25	16.79	12.93	6.12	8.23	165X16719X	
	15	39.52	33.3	25.12				165X16729X	
	25	53.42	47.04	38.84				165X16739X	
	37	69.7	63.5	55.3				5.99	165X16749X
	50	67.31	61.1	52.68				15.75	10.95

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap Metall design, shielded, for plug connector

4-40 UNC screws and clip


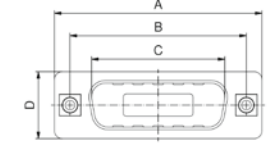
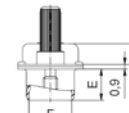
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.46	12.93	8.02	165X16769X
	15	39.52	33.3	24.79			165X16779X
	25	53.42	47.04	38.5			165X16789X
	37	69.7	63.5	54.96			165X16799X
	50	67.31	61.1	52.55			15.75

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap Metall design, shielded, for socket connector

4-40 UNC jack screws


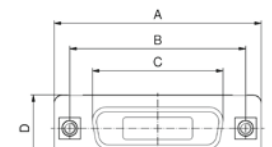
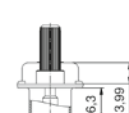
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
  	09	31.19	25	16.79	12.93	6.12	8.23	165X16909X	
	15	39.52	33.3	25.12				165X16919X	
	25	53.42	47.04	38.84				165X16929X	
	37	69.7	63.5	55.3				5.99	165X16939X
	50	67.31	61.1	52.68				15.75	10.95

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

### D-SUB shielded cap Metall design, shielded, for plug connector

4-40 UNC jack screws

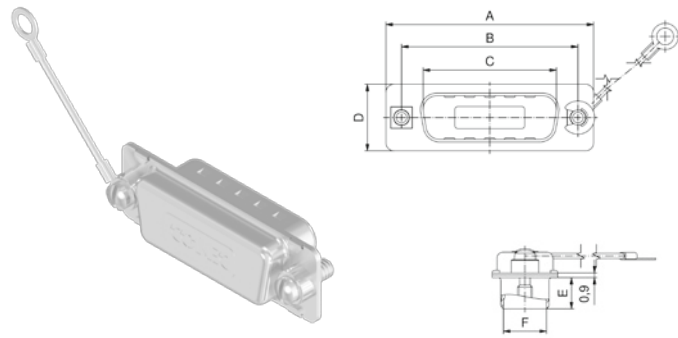
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.79	12.93	8.02	165X17009X
	15	39.52	33.3	25.12			165X17019X
	25	53.42	47.04	38.84			165X17029X
	37	69.7	63.5	55.3			165X17039X
	50	67.31	61.1	52.68			15.75

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for socket connector

4-40 UNC screws



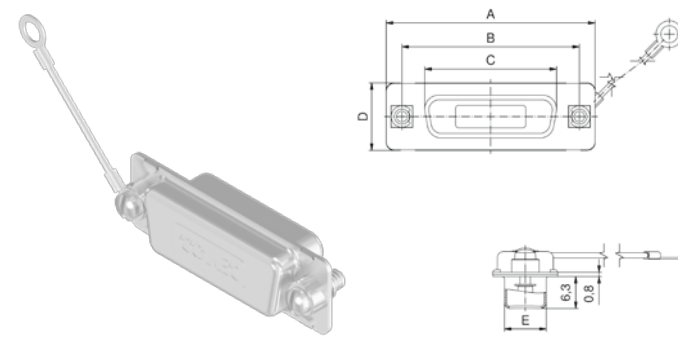
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
09	31.19	25	16.46	12.6	6.12	8.26	16-001050	
15	39.52	33.3	24.79				16-001060	
25	53.42	47.04	38.5				16-001070	
37	69.7	63.5	54.96				5.99	16-001080
50	67	61.11	52.5				15.38	6.12

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for plug connector

4-40 UNC screws



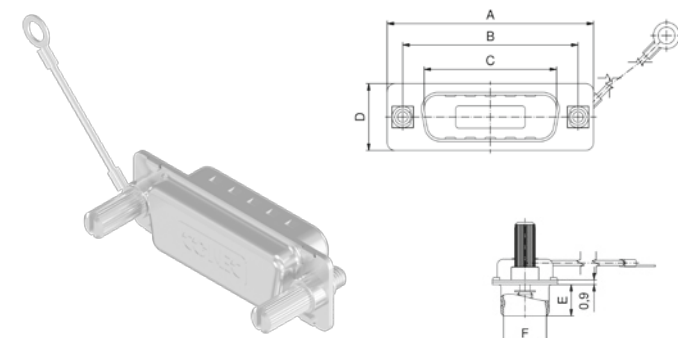
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
09	31.19	25	16.79	12.6	8	16-001150
15	39.52	33.3	25.12			16-001160
25	53.42	47.04	38.84			16-001170
37	69.7	63.5	55.3			16-001180
50	67	61.11	52.81			15.38

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for socket connector

4-40 UNC steel jack screws



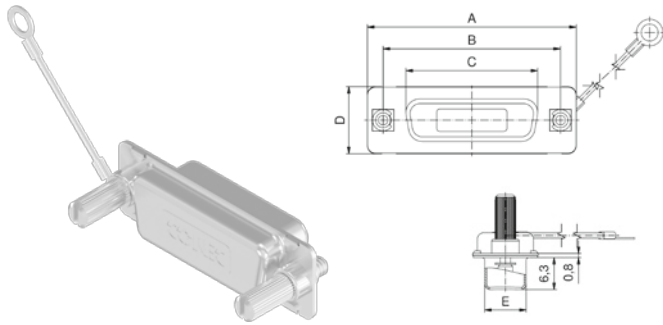
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
09	31.19	25	16.46	12.6	6.12	8.26	16-000840	
15	39.52	33.3	24.79				16-000850	
25	53.42	47.04	38.5				16-000860	
37	69.7	63.5	54.96				5.99	16-000870
50	67	61.11	52.5				15.38	6.12

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for plug connector

4-40 UNC steel jack screws



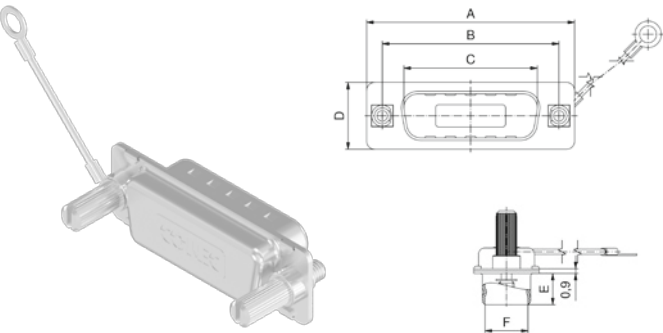
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
09	31.19	25	16.79	12.6	8	16-000950
15	39.52	33.3	25.12			16-000960
25	53.42	47.04	38.84			16-000970
37	69.7	63.5	55.3			16-000980
50	67	61.11	52.81			15.38

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for socket connector

4-40 UNC stainless steel jack screws



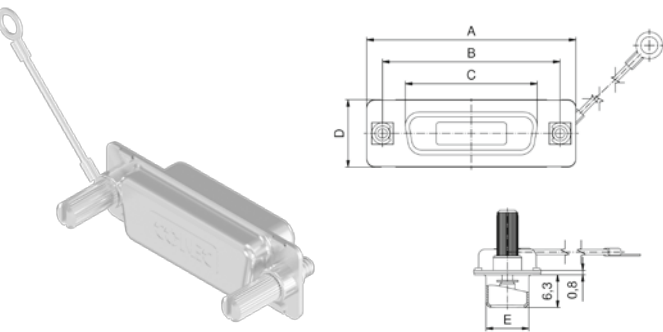
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
09	31.19	25	16.46	12.6	6.12	8.26	16-000280	
15	39.52	33.3	24.79				16-000290	
25	53.42	47.04	38.5				16-000300	
37	69.7	63.5	54.96				5.99	16-000310
50	67	61.11	52.5				15.38	6.12

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

D-SUB shielded cap with lanyard  
Metall design, shielded, for plug connector

4-40 UNC stainless steel jack screws



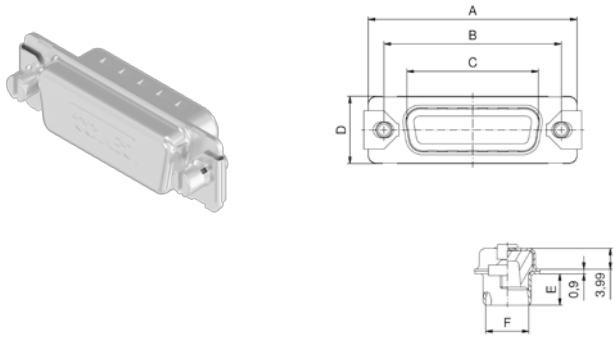
No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
09	31.19	25	16.79	12.6	8	16-000380
15	39.52	33.3	25.12			16-000390
25	53.42	47.04	38.84			16-000400
37	69.7	63.5	55.3			16-000410
50	67	61.11	52.81			15.38

Shielded cap protecting against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for socket connector

4-40 UNC screws and clip

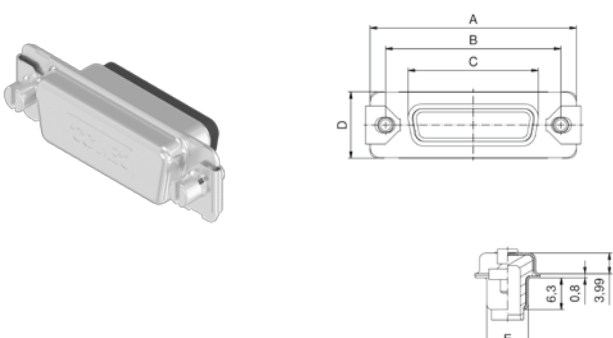
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.
	09	31.19	25	16.79	12.93	6.12	8.23	165X14719X
	15	39.52	33.3	25.12				165X14729X
	25	53.42	47.04	38.84				165X14739X
	37	69.7	63.5	55.3	5.99	165X14749X		
	50	67.31	61.1	52.68	15.75	10.95	165X14759X	

IP67 Protection cap with gasket  
Protection against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for plug connector

4-40 UNC screws and clip

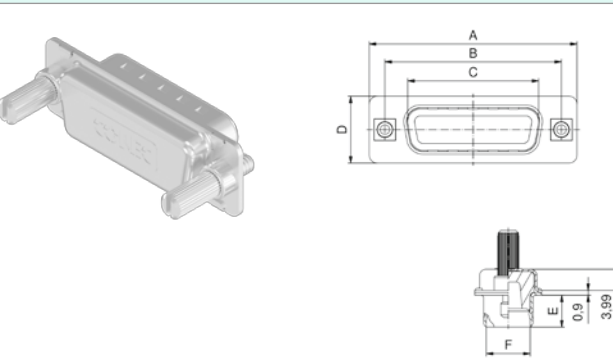
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
	09	31.19	25	16.46	12.93	8.02	165X14769X
	15	39.52	33.3	24.79			165X14779X
	25	53.42	47.04	38.5			165X14789X
	37	69.7	63.5	54.96	165X14799X		
	50	67.31	61.11	52.55	15.75	10.87	165X14809X

IP67 Protection cap with gasket  
Protection against EMI/RFI  
Shell: steel tin plated  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for socket connector

4-40 UNC jack screws

	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.
	09	31.19	25	16.79	12.93	6.12	8.23	165X17109X
	15	39.52	33.3	25.12				165X17119X
	25	53.42	47.04	36.84				165X17129X
	37	69.7	63.5	55.3	5.99	165X17139X		
	50	67.31	61.1	52.68	15.75	10.95	165X17149X	


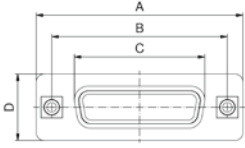
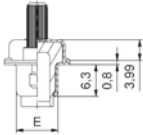
IP67 Protection cap with gasket  
Protection against EMI/RFI  
Shell: brass tin plated  
Jack screws: stainless steel  
On request:  
• M3 thread



## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket  
Metall design, shielded, for plug connector

4-40 UNC jack screws


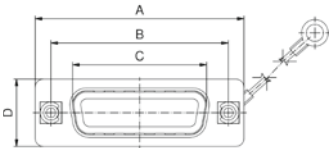
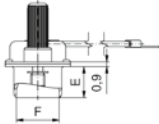
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.46	12.93	8.02	165X17209X
	15	39.52	33.3	24.79			165X17219X
	25	53.42	47.04	38.5			165X17229X
	37	69.7	63.5	54.96			165X17239X
	50	67.31	61.1	52.55			15.75

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Jack screws: stainless steel  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket and lanyard  
Metall design, shielded, for socket connector

4-40 UNC jack screws stainless steel


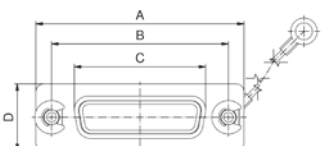
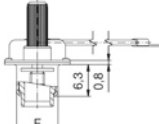
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Measure F [mm]	Part No.	
  	09	31.19	25	16.46	12.6	6.12	8.26	15-000010	
	15	39.52	33.3	24.79				15-000020	
	25	53.42	47.04	38.5				15-000030	
	37	69.7	63.5	54.96				5.99	15-000040
	50	67	61.11	52.5				15.38	6.12

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Lanyard: stainless steel  
Jack screws: stainless steel  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

IP67 D-SUB protection cap with gasket and lanyard  
Metall design, shielded, for plug connector

4-40 UNC jack screws stainless steel

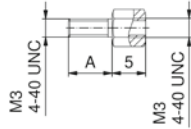
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.
  	09	31.19	25	16.79	12.6	8	15-000110
	15	39.52	33.3	25.12			15-000120
	25	53.42	47.04	38.84			15-000130
	37	69.7	63.5	55.3			15-000140
	50	67	61.11	52.81			15.38

IP67 Protection cap with gasket  
Protection against EMI / RFI  
Shell: brass tin plated  
Lanyard: stainless steel  
Jack screws: stainless steel  
On request:  
• M3 thread

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Single hex bolts packaging unit 200 pieces



Length A [mm]

Internal thread

External thread

Part No.

6.5

740-353770

8.0

740-331370

11.0

4-40 UNC

4-40 UNC

740-331570

13.0

740-331870

14.0

740-331670

4.0

740-354470

7.0

M3

740-320570

8.0

740-342470

13.0

M3

740-365270

4.0

740-354370

7.0

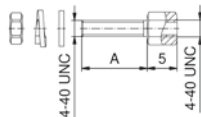
4-40 UNC

740-320170

13.0

740-344970

#### Single hex bolts set packaging unit 100 pieces



8.0

160X10359X

14.0

4-40 UNC

4-40 UNC

160X10639X

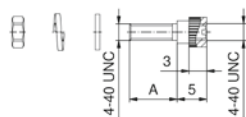
8.0

M3

M3

160X10529X

#### Screw locking set packaging unit 100 pieces



8.0

4-40 UNC

4-40 UNC

160X10329X

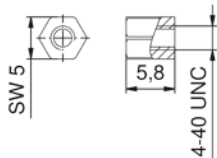
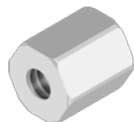
## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

Hex bolt nut .228" 5.8 mm

Internal thread

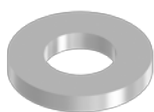
Part No.



4-40 UNC

160X10379X

Flat washer



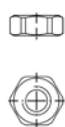
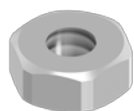
765-329670

Spring ring



765-329570

Nut



4-40 UNC

765-329770

M3

765-329870

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

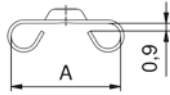
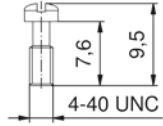
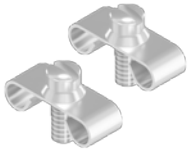
Set 4-40 UNC Screw locking with clamp

No. of poles

Material

Measure A [mm]

Part No.



09-37

steel

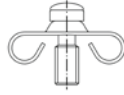
13.3

160X10259X

50

15.9

160X10659X



## D-SUB HOODS AND ACCESSORIES

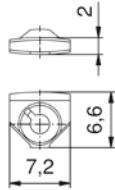
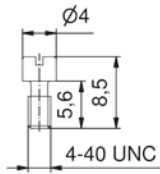
### D-SUB Hardware accessories

Set 4-40 UNC Screw locking with clamp

No. of poles

Material

Part No.

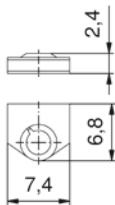
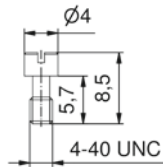


09-50

stainless steel

160X00470A

Set 4-40 UNC Screw locking with clamp



09-50

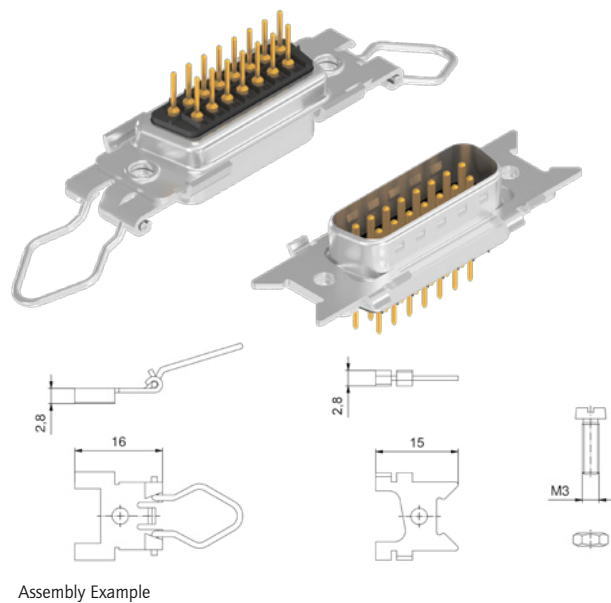
brass

16-505750

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set spring locking



No. of poles

Material

- Set spring locking:
- 2 spring clips
  - 2 wire clamp holders
  - 2 clamps
  - 4 M3 screws
  - 4 M3 nuts

Part No.

09-37

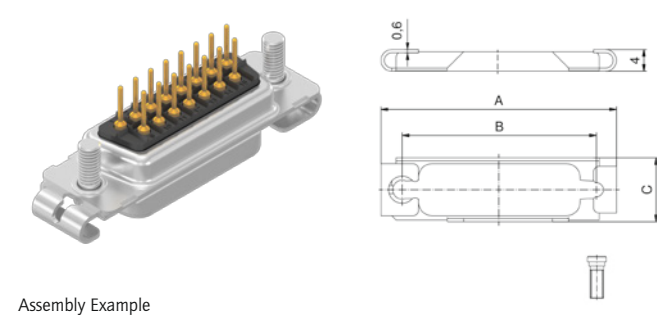
steel

160X10239X

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set Slide lock Type 3



No. of poles

Measure A [mm]

Measure B [mm]

Measure C [mm]

- Slide lock Type 3  
(for direct assembly to connector)
- 1 frame
  - 2 self threading screws for plastic and metal

Part No.

09

35

27.4

12

160X10159X

15

43.3

35.7

11.5

160X10169X

25

57

49.4

12

160X10179X

37

74.4

65.9

12

160X10189X

50

72

63.5

15

160X10199X

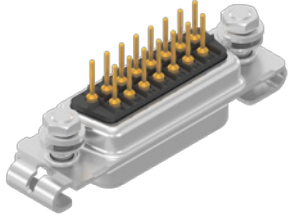
## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

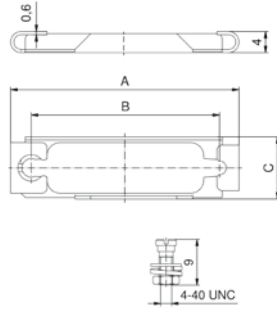
#### Set Slide lock Type 4

Slide lock Type 4 (for hood assembly)

- 1 frame
- 2 4-40 UNC screws
- 2 flat washers
- 2 spring rings
- 2 4-40 UNC nuts



Assembly Example



No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Part No.
09	35	27.4	12	160X10689X
15	43.3	35.7	11.5	160X10699X
25	57	49.4	12	160X10709X
37	74.4	65.9		160X10719X
50	72	63.5	15	160X10729X

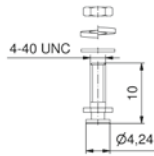
## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Set Holding bolt for slide lock type 3 + 4

Holding bolt set:

- 2 hex bolts
- 2 flat washers
- 2 spring rings
- 2 nuts




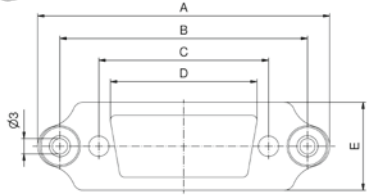
No. of poles	Part No.
09-50	160X10209X

## D-SUB HOODS AND ACCESSORIES

### D-SUB Hardware accessories

#### Blind mating frame

Blind mating - Plug-in system:  
Material: Steel nickel plated  
• Mounting for mating applications consist of frame and float mount  
• Frame is factory assembled


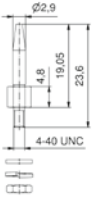
	No. of poles	Measure A [mm]	Measure B [mm]	Measure C [mm]	Measure D [mm]	Measure E [mm]	Part No.	
 	09	49.02	40.28	24.99	20.2	17.2	160X10889X	
	15	57.35	48.62	33.32	28.8		160X10899X	
	25	71.25	62.51	47.04	42.5		160X10909X	
	37	87.53	78.79	63.5	59.1		160X10919X	
	50	85.14	76.4	61.11	56.3		20.04	160X10929X
	Assembly Example							

## D-SUB HOODS AND ACCESSORIES

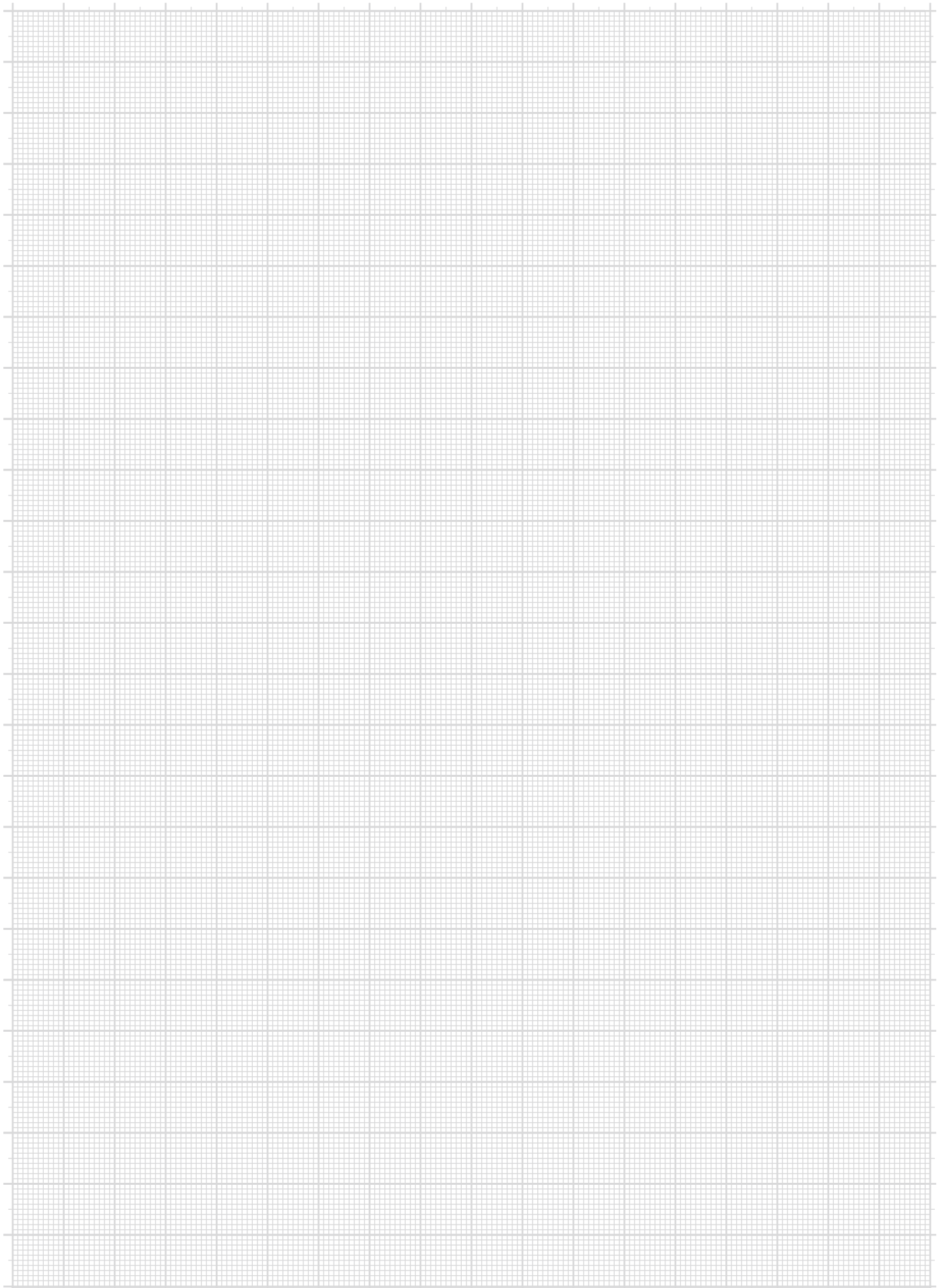
### D-SUB Hardware accessories

#### Blind mating guide posts

Blind mating - Plug-in system guide pin  
Material: Steel nickel plated

	No. of poles	Part No.
 	09-50	160X10949X

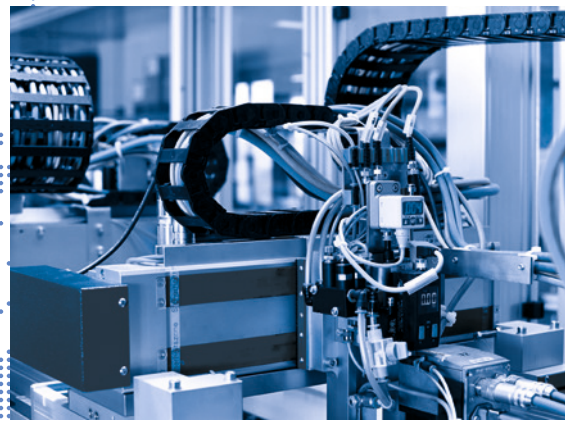
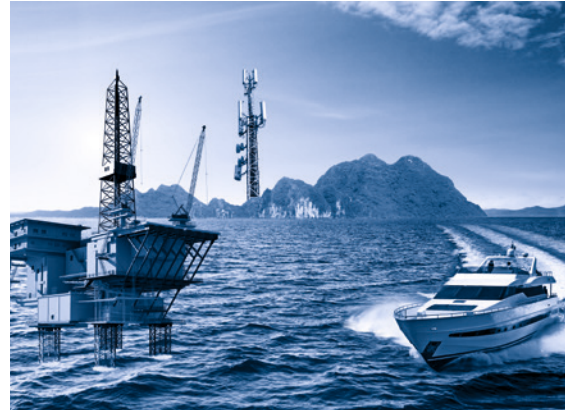




SECTION 6

# IP67 D-SUB CONNECTORS







## IP67 D-SUB CONNECTORS

### Part Number Creator

6 S T D 0 9 S A M 9 9 B 3 O X

#### Product Line

- 6 = Shell brass tin plated with die-cast frame
  - 4 = Shell brass tin plated with plastic frame or without frame
  - 8\* = Shell stainless steel with or without die-cast frame
  - 8\* = Shell stainless steel with plastic frame
- \*on request

#### Variations

- STD = D-SUB-Standard
- HDD = D-SUB-High Density

#### Position for STD

- 09 = 9-pos.
- 15 = 15-pos.
- 25 = 25-pos.
- 37 = 37-pos.
- 50 = 50-pos.

#### Position for HDD

- 15 = 15-pos.
- 26 = 26-pos.
- 44 = 44-pos.
- 62 = 62-pos.
- 78 = 78-pos.

#### Contact type

- P = Plug connector
- S = Socket connector
- A = Adapter

#### Quality class for contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles

#### Termination

- M = Solder cup 10 A
- R = Solder pin, straight
- T = Solder pin, angled, .189"/ 4.80 mm
- U = Solder pin, angled, .189"/ 7.00 mm
- Z = Solder pin, angled, .189"/11.80 mm
- Y = Solder pin, angled, .189"/ 5.60 mm (high density design only)
- A = Adapter

#### Capacitance

- 99 = Without filter for STD and HDD

#### Mounting style

- A1 = Riveted for wire assembly shell without sealing frame
- B3 = 4-40 UNC threaded insert
- B5 = 4-40 UNC front spacer
- B7 = 4-40 UNC front spacer and rear mounting stud
- B9 = 4-40 UNC front spacer for adapter
- E2 = 4-40 UNC Threaded rear spacer with PCB clip, PCB 1.60 mm
- S2 = Metal bracket, 4-40 UNC threaded insert
- S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
- R2 = Metal bracket, 4-40 UNC threaded insert
- R4 = Metal bracket, 4-40 UNC threaded insert and PCB clip

- OX = Standard

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification

Basic material	D-SUB			D-SUB High Density		
	SlimCon	Solid Body	Standard	SlimCon	Solid Body	Standard
Number of poles	9 - 25 pos.	9 - 50 pos.		15 - 44 pos.	15 - 78 pos.	
Contact	Copper alloy					
Contact plating	Gold over nickel					
Insulator	PBT GF UL 94 V-0					
One-piece shell Zinc die-cast nickel plated	✓	✓		✓	✓	
Shell Brass tin plated (Stainless steel on request)			✓			✓
<b>Technical data</b>						
Test voltage	1000 V, 50 Hz, for 1 minute					
Working voltage	125 V AC/DC depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			60 V AC/DC		
Current rating	7.5 A (UL) / 5 A (CSA, VDE)			3 A (UL) / 2.5 A (CSA, VDE)		
Contact resistance	max. 10 mΩ prior to stressing ΔR max. 10 mΩ after stressing per IEC 60807-2					
Insulation resistance	≥ 5 GΩ					
Clearance and creepage distance	Contact - Contact ≥ 1.0 mm / 0.04" Contact - earth ≥ 1.2 mm / 0.047"			≥ 0.6 mm / 0.024"		
Operating temperature	-40 °C to +105 °C		-25 °C to +105 °C	-40 °C to +105 °C		-25 °C to +105 °C
Mounting style Rear panel mounting/ Panel thickness	min. 0.8 mm to 1.3 mm	min. 1 mm to 1.6 mm		min. 0.8 mm to 1.3 mm	min. 1 mm to 1.6 mm	
Mounting style Front panel mounting			✓		✓	
Mating and unmating forces	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 30 N	9 pos. ≤ 30 N 15 pos. ≤ 50 N 25 pos. ≤ 83 N 37 pos. ≤ 123 N 50 pos. ≤ 167 N		15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N	15 pos. ≤ 50 N 26 pos. ≤ 84 N 44 pos. ≤ 120 N 62 pos. ≤ 170 N 78 pos. ≤ 200 N	
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles					
Recommended wavesolder parameters	Preheating		Solder terminal dipping parameters			
	max. temperature	duration (max.)	max. Solder bath temperature		max. terminal immersion time	
IP67 D-SUB CONEC SlimCon and Solid Body	150 °C	180 s	265 °C		8 s	
IP67 D-SUB Standard	120 °C	120 s	240 °C		5 s	

Technical specifications are subject to change without notice.

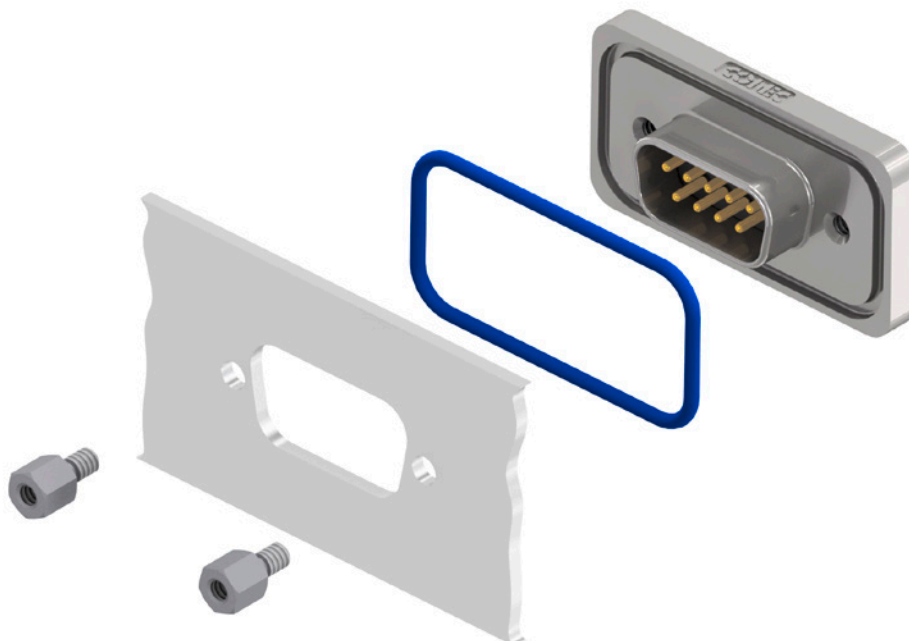
## IP67 D-SUB CONNECTORS

### Panel mounting

#### Front panel mounting



#### Back panel mounting

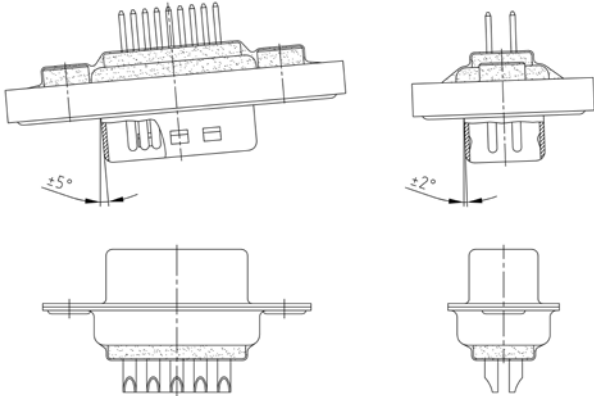


The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm (standard & solid body)/.051"/1.3 mm (CONEC SlimCon) such that it does not extend beyond the plug-in height. Material: stainless steel.

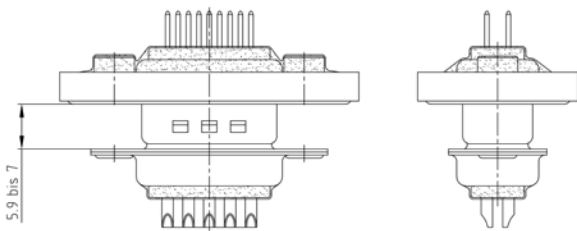
# IP67 D-SUB CONNECTORS

## Mating conditions

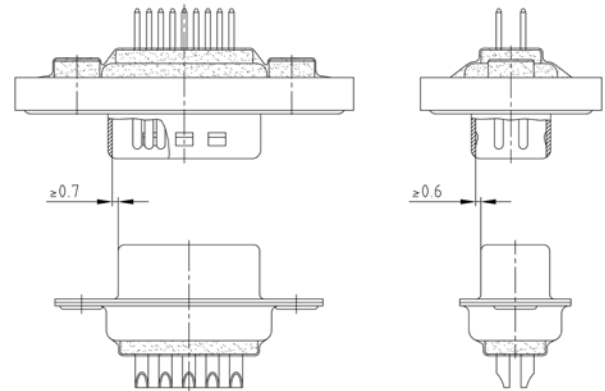
### Max. tilt angle for connector mating



### Range for safe contact

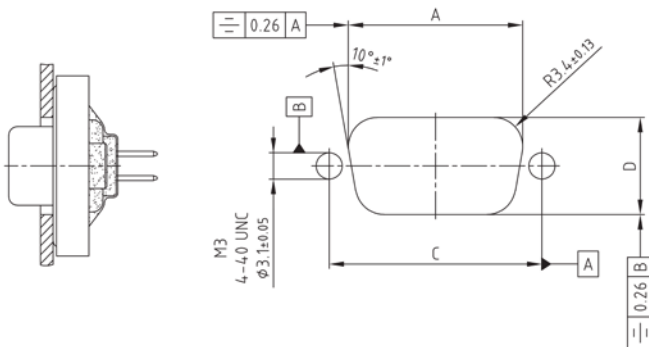


### Lock-in range

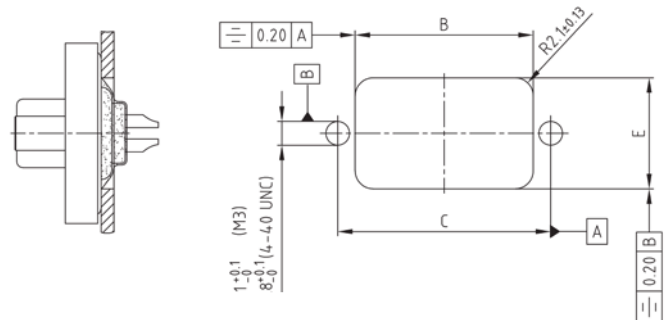


## Panel cut-out

### Back panel mounting



### Front panel mounting



Shell size	A ±0.1	B ±0.1	C ±0.1	D ±0.1	E ±0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

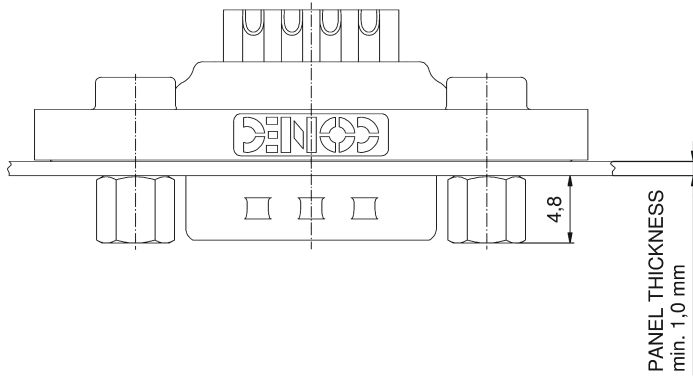
Technical specifications are subject to change without notice.



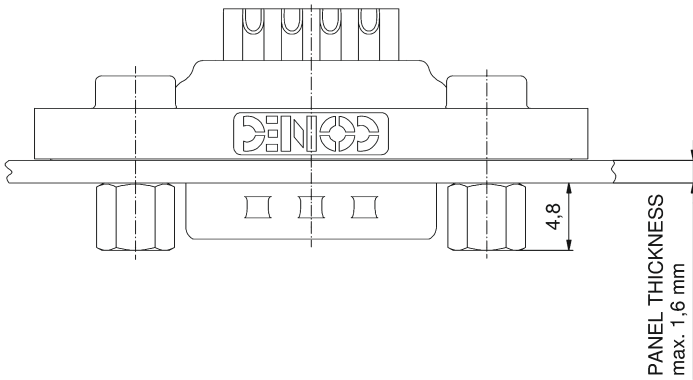
## IP67 D-SUB CONNECTORS

### Assembly for series Solid Body and Standard Rear Panel Mounting

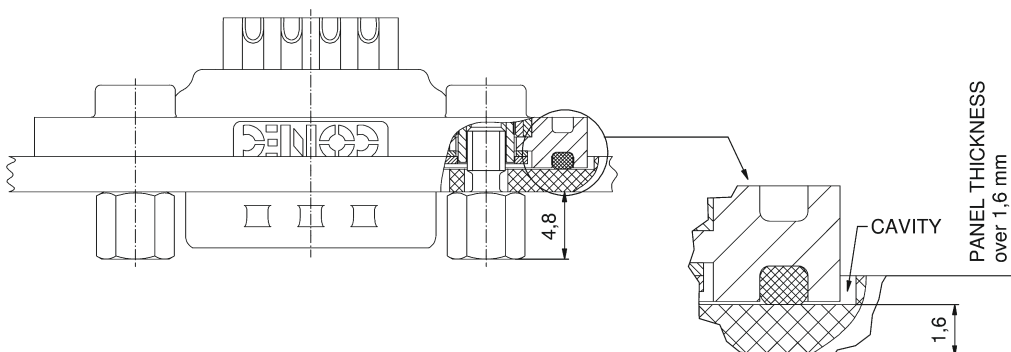
Panel thickness min. 1.0 mm



Panel thickness max. 1.6 mm



Panel thickness over 1.6 mm

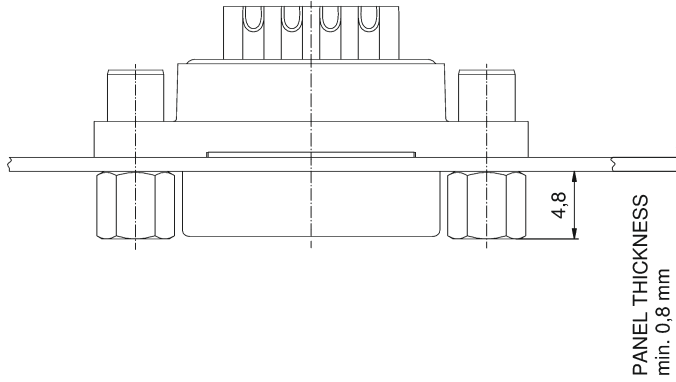


Technical specifications are subject to change without notice.

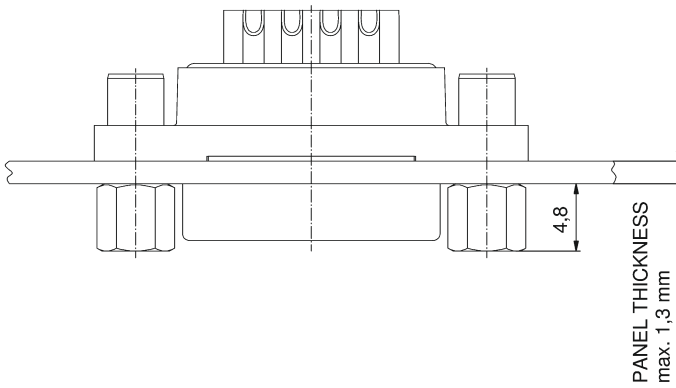
## IP67 D-SUB CONNECTORS

### Assembly for series CONEC SlimCon Rear Panel Mounting

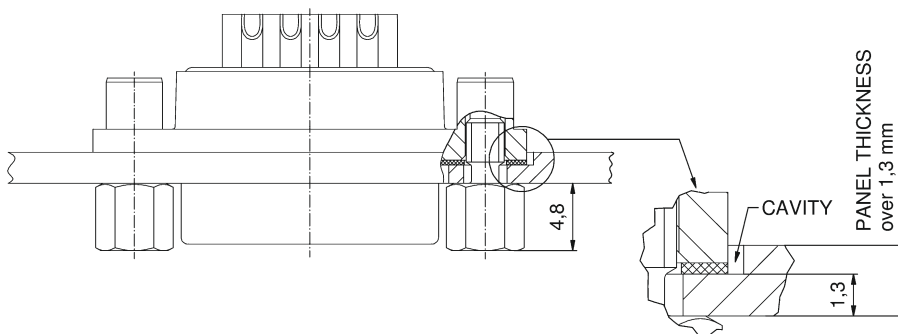
Panel thickness min. 0.8 mm



Panel thickness max. 1.3 mm



Panel thickness over 1.3 mm



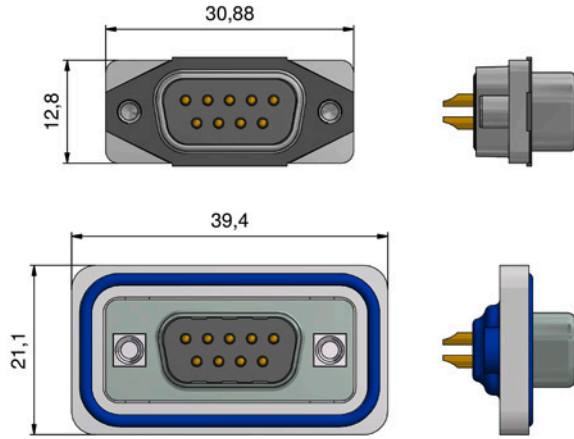
Technical specifications are subject to change without notice.

## IP67 D-SUB CONNECTORS

### Size comparison

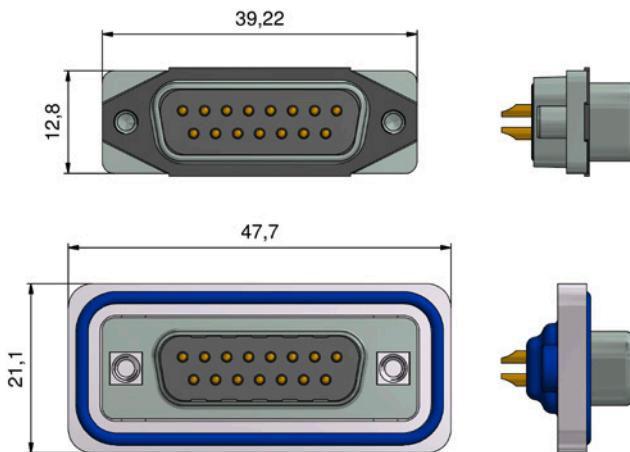
Series Standard/Solid Body versus series CONEC SlimCon

#### Size 1



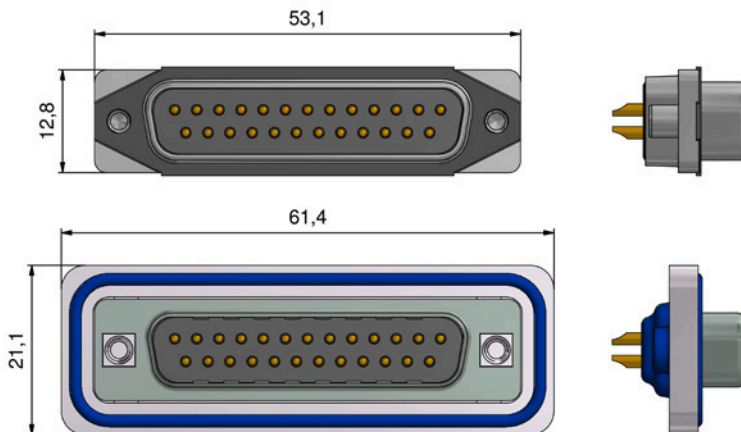
IP67 D-SUB CONEC SlimCon	IP67 D-SUB Standard/ Solid Body	Space-saving	Reduction of mounting space
30.88 mm	39.4 mm	8.3 mm / 13.5 %	52 %
12.8 mm	21.1 mm	8.3 mm / 39 %	

#### Size 2



IP67 D-SUB CONEC SlimCon	IP67 D-SUB Standard/ Solid Body	Space-saving	Reduction of mounting space
39.22 mm	47.7 mm	8.3 mm / 13.5 %	50 %
12.8 mm	21.1 mm	8.3 mm / 39 %	

#### Size 3



IP67 D-SUB CONEC SlimCon	IP67 D-SUB Standard/ Solid Body	Space-saving	Reduction of mounting space
53.1 mm	61.4 mm	8.3 mm / 13.5 %	48 %
12.8 mm	21.1 mm	8.3 mm / 39 %	

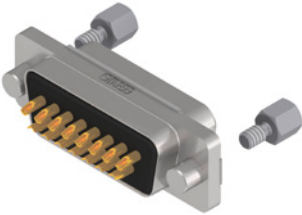
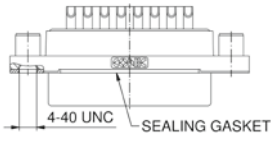
Technical specifications are subject to change without notice.

**IP67 D-SUB CONNECTORS**  
**CONEC SlimCon**


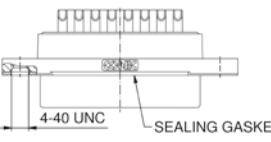
Solder cup  
Precision machined contacts, AWG 20

One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006293	15-006243
	15				15-006303	15-006253
	25				15-006313	15-006263


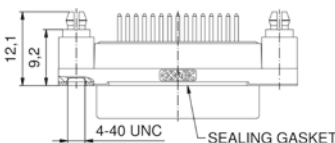
4-40 UNC threaded insert (for cable assembly and overmould)

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006393	15-006343
	15				15-006403	15-006353
	25				15-006413	15-006363

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

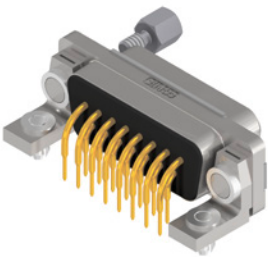
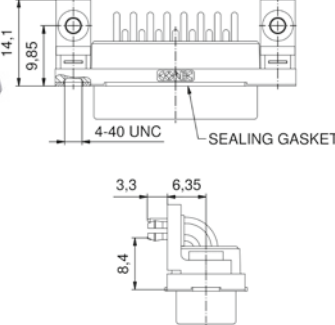
Part No. Socket contact Part No. Plug contact

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006493	15-006443
	15				15-006503	15-006453
	25				15-006513	15-006463

Solder pin, angled, .331"/8.4 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert


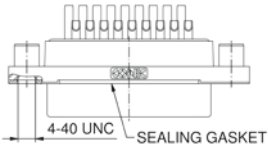
Part No. Socket contact Part No. Plug contact

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-006593	15-006543
	15				15-006603	15-006553
	25				15-006613	15-006563


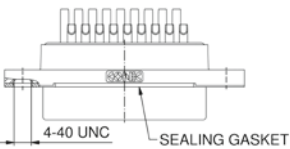
**IP67 D-SUB HIGH DENSITY CONNECTORS**  
**CONEC SlimCon**

Solder cup  
 Precision machined contacts, AWG 22

4-40 UNC threaded insert


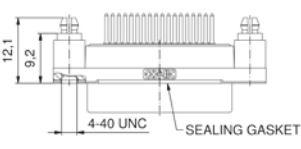
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007853	15-007823
	26	3 (UL, VDE) / 2.5 (CSA)			15-007863	15-007833
	44	3 (UL, VDE) / 2.5 (CSA)			15-007873	15-007843

4-40 UNC threaded insert (for cable assembly and overmould)

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007673	15-007703
	26	3 (UL, VDE) / 2.5 (CSA)			15-007683	15-007713
	44	3 (UL, VDE) / 2.5 (CSA)			15-007693	15-007723

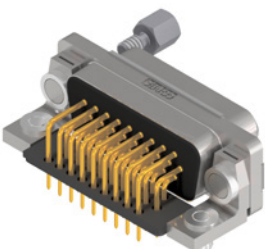
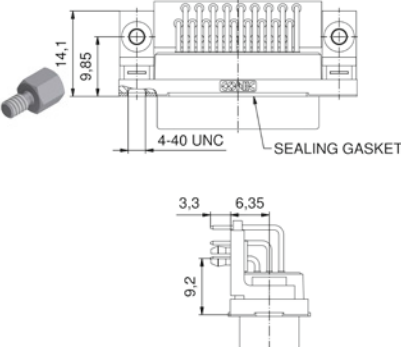
Solder pin, straight  
 Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007553	15-007583
	26	3 (UL, VDE) / 2.5 (CSA)			15-007563	15-007593
	44	3 (UL, VDE) / 2.5 (CSA)			15-007573	15-007603

Solder pin, angled, .362" / 9.2 mm  
 Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-007613	15-007643
	26				15-007623	15-007653
	44				15-007633	15-007663

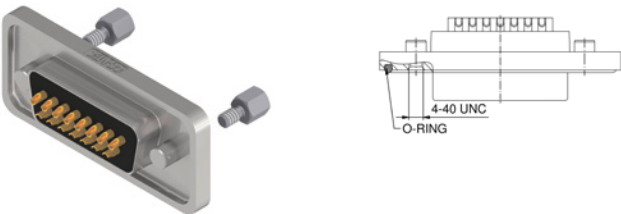
One-piece shell: zinc die-cast nickel plated  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

**IP67 D-SUB CONNECTORS**  
Standard Solid Body

Solder cup  
Precision machined contacts, AWG 20

4-40 UNC threaded insert

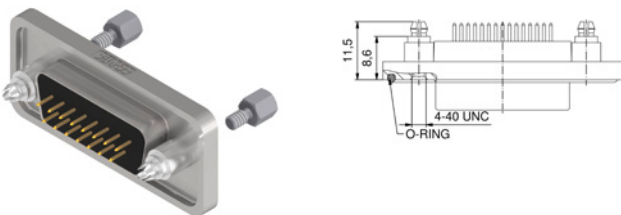
One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-000613	15-000573
	15				15-000623	15-000583
	25				15-000633	15-000593
	37				15-000643	15-000603
	50				15-002103	15-002093

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

Part No. Socket contact Part No. Plug contact

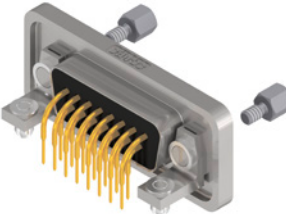
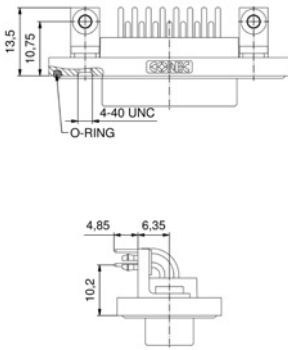
	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA, VDE)	125	3	15-000453	15-000413
	15				15-000463	15-000423
	25				15-000473	15-000433
	37				15-000483	15-000443
	50				15-002063	15-002053

**IP67 D-SUB CONNECTORS**  
Standard Solid Body

Solder pin, angled, .402" / 10.2 mm  
Precision machined contacts, metal bracket

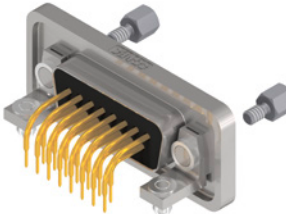
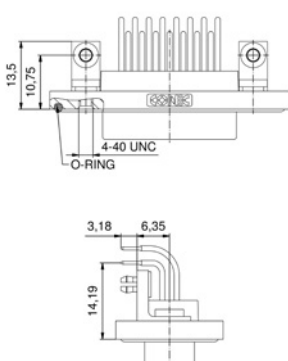
Clip for PCB 1.6 mm, 4-40 UNC threaded insert

One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	3	15-000773	15-000733
	15				15-000783	15-000743
	25				15-000793	15-000753
	37				15-000803	15-000763
	50				15-002143	15-002133

Solder pin, angled, .590" / 14.19 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

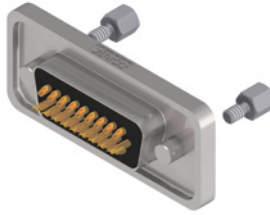
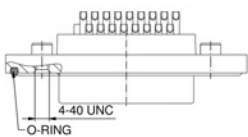
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	3	15-000853	15-000813
	15				15-000863	15-000823
	25				15-000873	15-000833
	37				15-000883	15-000843
	50				15-002163	15-002153

**IP67 D-SUB CONNECTORS**  
High Density Solid Body

Solder cup  
Precision machined contacts, AWG 22

4-40 UNC threaded insert

One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles


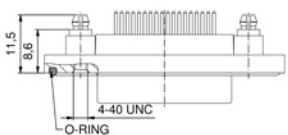
 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-000693	15-000653
	26				15-000703	15-000663
	44				15-000713	15-000673
	62				15-000723	15-000683
	78				15-002123	15-002113



**IP67 D-SUB CONNECTORS**  
High Density Solid Body

Solder pin, straight  
Precision machined contacts

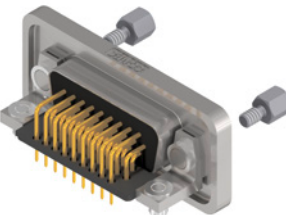
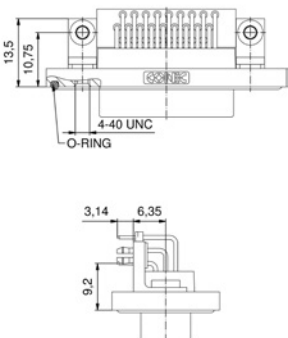
4-40 UNC threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-000533	15-000493
	26				15-000543	15-000503
	44				15-000553	15-000513
	62				15-000563	15-000523
	78				15-002183	15-002073

One-piece shell: zinc die-cast nickel plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Quality class 1 (C) = 500 mating cycles

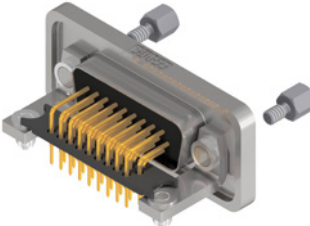
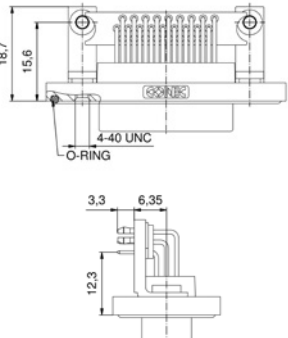
Solder pin, angled, .362"/9.2 mm  
Precision machined contacts, metal bracket

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-002243	15-002193
	26				15-002253	15-002203
	44				15-002263	15-002213
	62				15-002273	15-002223
	78				15-002283	15-002233

Solder pin, angled, .484"/12.3 mm  
Precision machined contacts, metal bracket


Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
					Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	3	15-000933	15-000893
	26				15-000943	15-000903
	44				15-000953	15-000913
	62				15-000963	15-000923

**IP67 D-SUB CONNECTORS**  
Standard

Solder cup  
Precision machined contacts, AWG 20

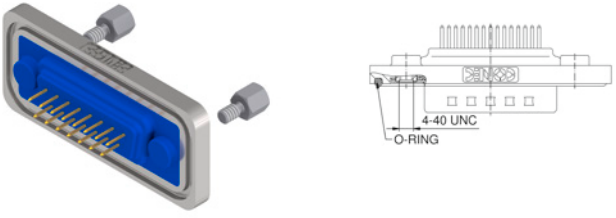
4-40 UNC threaded insert

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAM99B30X	6STD09PAM99B30X
	15					6STD15SAM99B30X	6STD15PAM99B30X
	25					6STD25SAM99B30X	6STD25PAM99B30X
	37					6STD37SAM99B30X	6STD37PAM99B30X
	50					6STD50SAM99B30X	6STD50PAM99B30X

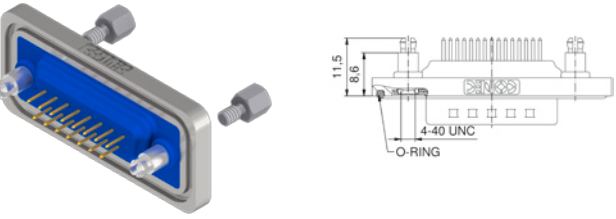
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

Solder pin, straight  
Precision machined contacts

4-40 UNC threaded insert

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAR99B30X	6STD09PAR99B30X
	15					6STD15SAR99B30X	6STD15PAR99B30X
	25					6STD25SAR99B30X	6STD25PAR99B30X
	37					6STD37SAR99B30X	6STD37PAR99B30X
	50					6STD50SAR99B30X	6STD50PAR99B30X

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	09	7.5 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAR99E20X	6STD09PAR99E20X
	15					6STD15SAR99E20X	6STD15PAR99E20X
	25					6STD25SAR99E20X	6STD25PAR99E20X
	37					6STD37SAR99E20X	6STD37PAR99E20X
	50					6STD50SAR99E20X	6STD50PAR99E20X

**IP67 D-SUB CONNECTORS**  
Standard

Solder pin, angled, .331"/8.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAT99S20X	6STD09PAT99S20X	
	15					6STD15SAT99S20X	6STD15PAT99S20X	
	25					6STD25SAT99S20X	6STD25PAT99S20X	
	37					6STD37SAT99S20X	6STD37PAT99S20X	
	50					6STD50SAT99S20X	6STD50PAT99S20X	

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

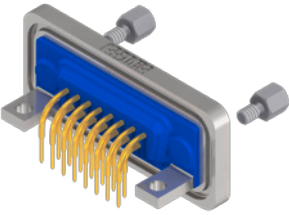
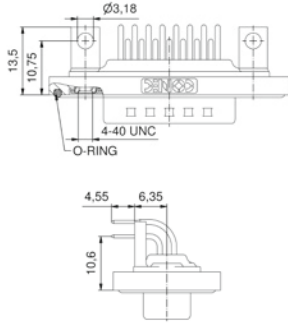
	09	75 (UL) / 5 (CSA VDE)	125	E202784	3	6STD09SAT99S40X	6STD09PAT99S40X
	15					6STD15SAT99S40X	6STD15PAT99S40X
	25					6STD25SAT99S40X	6STD25PAT99S40X
	37					6STD37SAT99S40X	6STD37PAT99S40X
	50					6STD50SAT99S40X	6STD50PAT99S40X

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

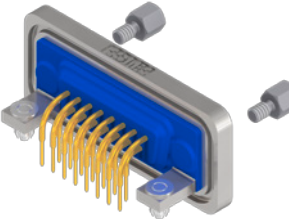
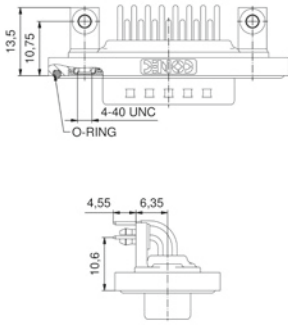
## IP67 D-SUB CONNECTORS Standard

Solder pin, angled, .417" / 10.6 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAU99R20X	6STD09PAU99R20X	
	15					6STD15SAU99R20X	6STD15PAU99R20X	
	25					6STD25SAU99R20X	6STD25PAU99R20X	
	37					6STD37SAU99R20X	6STD37PAU99R20X	
	50					6STD50SAU99R20X	6STD50PAU99R20X	

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

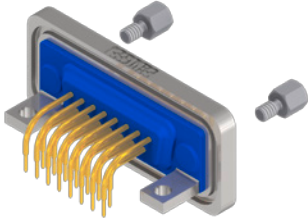
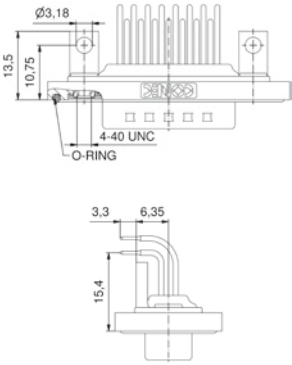
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAU99R40X	6STD09PAU99R40X	
	15					6STD15SAU99R40X	6STD15PAU99R40X	
	25					6STD25SAU99R40X	6STD25PAU99R40X	
	37					6STD37SAU99R40X	6STD37PAU99R40X	
	50					6STD50SAU99R40X	6STD50PAU99R40X	

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

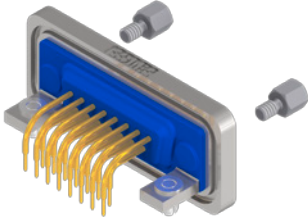
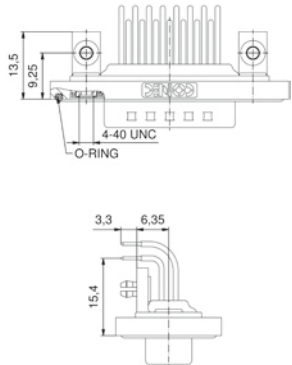
**IP67 D-SUB CONNECTORS**  
Standard

Solder pin, angled, .606" / 15.4 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAZ99S20X	6STD09PAZ99S20X	
	15					6STD15SAZ99S20X	6STD15PAZ99S20X	
	25					6STD25SAZ99S20X	6STD25PAZ99S20X	
	37					6STD37SAZ99S20X	6STD37PAZ99S20X	

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

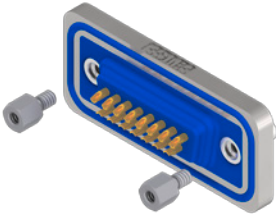
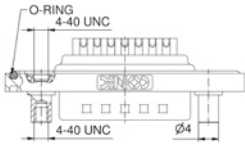
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	09	75 (UI) / 5 (CSA VDE)	125	E202784	3	6STD09SAZ99S40X	6STD09PAZ99S40X	
	15					6STD15SAZ99S40X	6STD15PAZ99S40X	
	25					6STD25SAZ99S40X	6STD25PAZ99S40X	
	37					6STD37SAZ99S40X	6STD37PAZ99S40X	

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

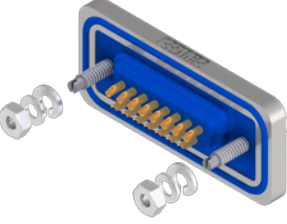
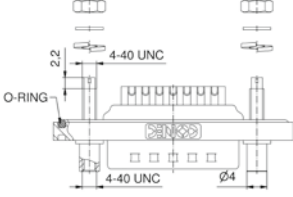
**IP67 D-SUB CONNECTORS**  
Standard

Solder cup, precision machined contacts  
Front panel mounting, AWG 20

4-40 UNC Front spacer

 	No. of poles	75 (UL) / 5 (CSA VDE)	125	E202784	3	Part No. Socket contact	Part No. Plug contact
	09					6STD09SAM99B50X	6STD09PAM99B50X
	15					6STD15SAM99B50X	6STD15PAM99B50X
	25					6STD25SAM99B50X	6STD25PAM99B50X
	37					6STD37SAM99B50X	6STD37PAM99B50X
50	6STD50SAM99B50X	6STD50PAM99B50X					

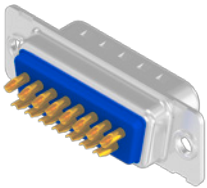
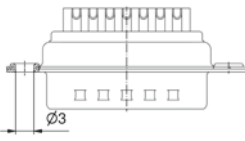
4-40 UNC Front spacer and rear mounting stud

 	No. of poles	75 (UL) / 5 (CSA VDE)	125	E202784	3	Part No. Socket contact	Part No. Plug contact
	09					6STD09SAM99B70X	6STD09PAM99B70X
	15					6STD15SAM99B70X	6STD15PAM99B70X
	25					6STD25SAM99B70X	6STD25PAM99B70X
	37					6STD37SAM99B70X	6STD37PAM99B70X
50	6STD50SAM99B70X	6STD50PAM99B70X					

**IP67 D-SUB CONNECTORS**  
Standard

Solder cup, precision machined contacts  
Hood Assembly, AWG 20

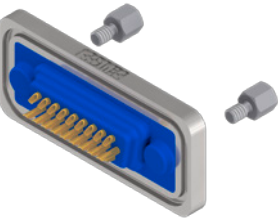
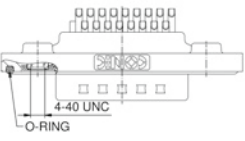
Through-hole Ø 3 mm

 	No. of poles	75 (UL) / 5 (CSA VDE)	125	E202784	3	Part No. Socket contact	Part No. Plug contact
	09					4STD09SAM99A10X	4STD09PAM99A10X
	15					4STD15SAM99A10X	4STD15PAM99A10X
	25					4STD25SAM99A10X	4STD25PAM99A10X
	37					4STD37SAM99A10X	4STD37PAM99A10X
50	4STD50SAM99A10X	4STD50PAM99A10X					

**IP67 D-SUB CONNECTORS**  
High Density

Solder cup  
Precision machined contacts, AWG 22

4-40 UNC threaded insert

 	No. of poles	3 (UL VDE) / 2.5 (CSA)	60	E202784	3	Part No. Socket contact	Part No. Plug contact
	15					6HDD15SAM99B30X	6HDD15PAM99B30X
	26					6HDD26SAM99B30X	6HDD26PAM99B30X
	44					6HDD44SAM99B30X	6HDD44PAM99B30X
	62					6HDD62SAM99B30X	6HDD62PAM99B30X
78	6HDD78SAM99B30X	6HDD78PAM99B30X					

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

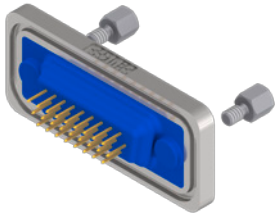
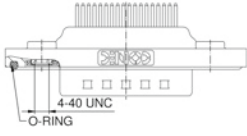
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 D-SUB CONNECTORS**  
High Density

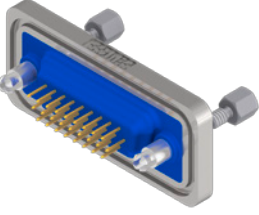
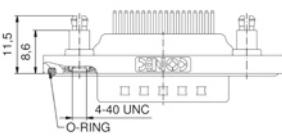
Solder pin, straight  
Precision machined contacts

4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAR99B30X	6HDD15PAR99B30X
	26					6HDD26SAR99B30X	6HDD26PAR99B30X
	44					6HDD44SAR99B30X	6HDD44PAR99B30X
	62					6HDD62SAR99B30X	6HDD62PAR99B30X
	78					6HDD78SAR99B30X	6HDD78PAR99B30X

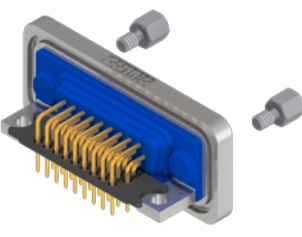
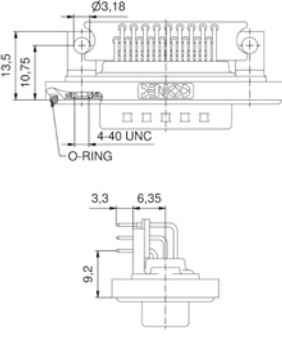
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded rear spacer clip for PCB 1.6 mm

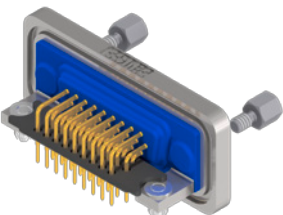
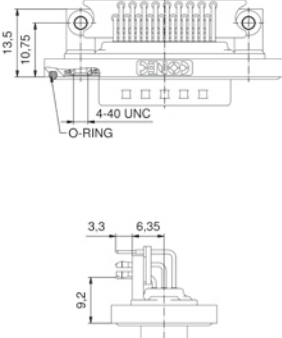
 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAR99E20X	6HDD15PAR99E20X
	26					6HDD26SAR99E20X	6HDD26PAR99E20X
	44					6HDD44SAR99E20X	6HDD44PAR99E20X
	62					6HDD62SAR99E20X	6HDD62PAR99E20X
	78					6HDD78SAR99E20X	6HDD78PAR99E20X

Solder pin, angled, .362"/9.2 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAY99R20X	6HDD15PAY99R20X
	26					6HDD26SAY99R20X	6HDD26PAY99R20X
	44					6HDD44SAY99R20X	6HDD44PAY99R20X
	62					6HDD62SAY99R20X	6HDD62PAY99R20X
	78					6HDD78SAY99R20X	6HDD78PAY99R20X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

 	No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
	15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAY99R40X	6HDD15PAY99R40X
	26					6HDD26SAY99R40X	6HDD26PAY99R40X
	44					6HDD44SAY99R40X	6HDD44PAY99R40X
	62					6HDD62SAY99R40X	6HDD62PAY99R40X
	78					6HDD78SAY99R40X	6HDD78PAY99R40X



**IP67 D-SUB CONNECTORS**  
High Density

Solder cup, precision machined contacts  
Front panel mounting, AWG 22

4-40 UNC front spacer

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAM99B50X	6HDD15PAM99B50X		
26					6HDD26SAM99B50X	6HDD26PAM99B50X		
44					6HDD44SAM99B50X	6HDD44PAM99B50X		
62					6HDD62SAM99B50X	6HDD62PAM99B50X		
78					6HDD78SAM99B50X	6HDD78PAM99B50X		

4-40 UNC Front spacer and rear mounting stud

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	6HDD15SAM99B70X	6HDD15PAM99B70X		
26					6HDD26SAM99B70X	6HDD26PAM99B70X		
44					6HDD44SAM99B70X	6HDD44PAM99B70X		
62					6HDD62SAM99B70X	6HDD62PAM99B70X		
78					6HDD78SAM99B70X	6HDD78PAM99B70X		

**IP67 D-SUB CONNECTORS**  
High Density

Solder cup, precision machined contacts  
Hood Assembly, AWG 22

Through-hole Ø 3 mm

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact		Part No. Plug contact	
15	3 (UL, VDE) / 2.5 (CSA)	60	E202784	3	4HDD15SAM99A10X	4HDD15PAM99A10X		
26					4HDD26SAM99A10X	4HDD26PAM99A10X		
44					4HDD44SAM99A10X	4HDD44PAM99A10X		
62					4HDD62SAM99A10X	4HDD62PAM99A10X		
78					4HDD78SAM99A10X	4HDD78PAM99A10X		

**IP67 D-SUB CONNECTORS**  
Standard

Interface adapter, connector saver  
Plug connector - socket connector

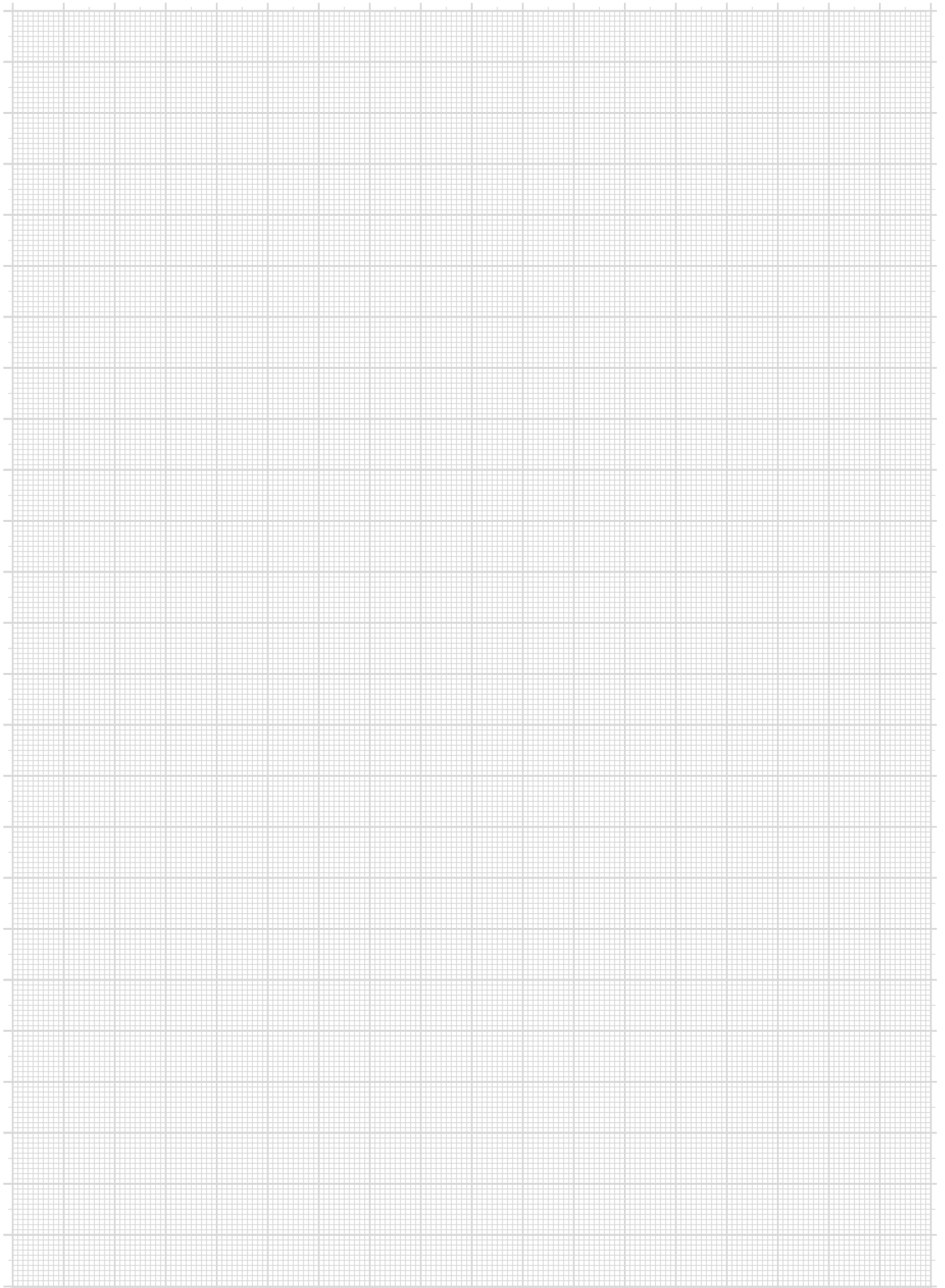
4-40 UNC threaded rear spacer

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	
09	7.5 (UL) / 5 (CSA, VDE)	125	E202784	3	6STD09AAA99B90X	
15					6STD15AAA99B90X	
25					6STD25AAA99B90X	
37					6STD37AAA99B90X	

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

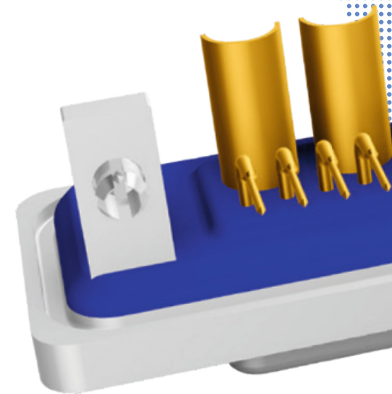
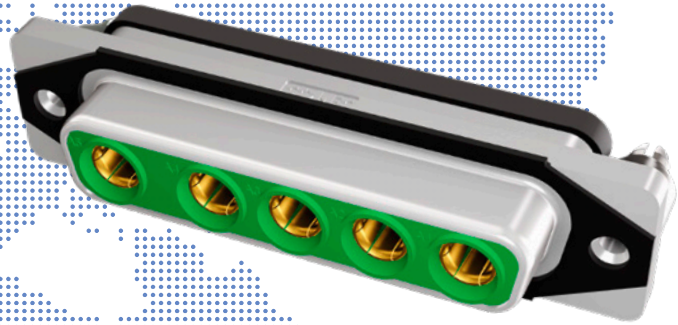
Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Stainless steel  
• Quality class 1 (C) = 500 mating cycles

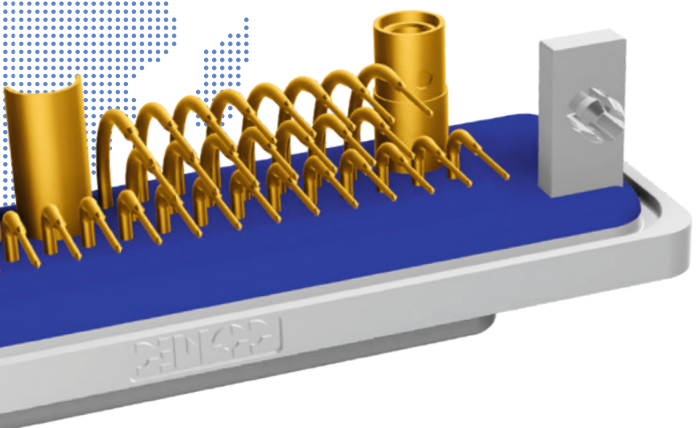


SECTION 7

# IP67 COMBINATION D-SUB CONNECTORS







# IP67 COMBINATION D-SUB CONNECTORS

## Part Number Creator

6 0 0 7 W 2 S A M 6 2 B 3 0 X

### Product Line

- 6 = Shell: Brass tin plated with die-cast frame
- 4\* = Shell: Brass tin plated with or without plastic frame
- 8\* = Shell: Stainless steel with or without die-cast frame
- 9\* = Shell: Stainless steel with plastic frame
- \* on request

### Variations

- Shellsize 1 = 5W1, 2W2C
- Shellsize 2 = 3W3, 7W2, 11W1, 3W3C
- Shellsize 3 = 5W5, 9W4, 13W3, 17W2, 21W1
- Shellsize 4 = 8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
- Shellsize 5 = 24W7, 36W4, 43W2, 47W1
- Empty positions ADD „0“ for example 007W2

### Contact type

- P = Plug connector
- S = Socket connector

### Plating code/Quality class for signal contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles
- X = without signal contact

### Termination applies to signal contacts only

- M = Solder cup
- R = Solder pin – Straight
- T = Solder pin – Angled, .189" / 4.80 mm
- U = Solder pin – Angled, .276" / 7.00 mm
- Z = Solder pin – Angled, .465" / 11.80 mm X = 3W3, 5W5, 8W8, 2W2C, 3W3C

### Termination for high power or coaxial contacts

#### Quality class 3 / Quality class 1

- 61 / 41 = Solder cup 10 A
- 62 / 42 = Solder cup 20 A
- 68 / 48 = Solder pin – Straight 20 A, D=.077" 1.95 mm
- 69 / 49 = Solder pin – Straight 20 A, D=.102" 2.60 mm
- 70 / 50 = Solder pin – Straight 20 A, D=.112" 2.85 mm
- 71 / 51 = Solder pin – Straight 30 A, D=.125" 3.18 mm
- 72 / 52 = Solder pin – Straight 40 A, D=.148" 3.75 mm
- 59 / 55 = Solder pin – Angled 15 A
- 73 / 56 = Solder pin – Angled 20 A
- 74 / 57 = Solder pin – Angled 30 A
- 75 / 58 = Solder pin – Angled 40 A
- 77 / 60 = Solder pin – Angled 40 A

#### Quality class 3 / Quality class 1

- 85 / 65 = Solder pin – Angled 30 A
- 81 / 66 = Solder pin – Angled 20 A
- 82 / 67 = Solder pin – Angled 30 A
- F9 / H4 = Cable connection straight 75 Ω
- G1 / H5 = Cable connection straight 75 Ω
- G2 / H6 = Cable connection straight 50 Ω
- G3 / H7 = Cable connection straight 50 Ω
- G4 / H8 = Cable connection straight 50 Ω
- G5 / H9 = Cable connection straight 50 Ω
- G6 / K1 = Cable connection straight 50 Ω
- G7 / 76 = 3 solder pins straight 50 Ω
- G8 / 86 = 3 solder pins straight 75 Ω

#### Quality class 3 / Quality class 1

- G9 / 78 = 3 solder pins angled 50 Ω
- H1 / 79 = 3 solder pins angled 50 Ω
- H2 / 88 = 3 solder pins angled 75 Ω
- H3 / 89 = 3 solder pins angled 75 Ω
- R1 = Screw Crimp 10 A
- R2 = Screw Crimp 20A
- R3 = Screw Crimp 30A
- R4 = Screw Crimp 40A

### Mounting style

- A1 = Riveted through hole for hood assembly
- B3 = 4-40 UNC threaded insert
- B5 = 4-40 UNC front spacer
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" 1.60 mm
- S2 = Metal bracket, 4-40 UNC threaded insert
- S4 = Metal bracket, 4-40 UNC threaded insert and PCB clip
- R2 = Metal bracket, 4-40 UNC threaded insert
- R4 = Metal bracket, 4-40 UNC threaded insert PCB clip

- OX = Standard

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification Standard

Basic material	Connectors with			
	Signal contacts	Coaxial contacts	High power contacts	
Contact	Copper alloy			
Contact plating	Flash gold over nickel			
Insulator (Connector)	PBT GF UL 94 V-0 (Connectors)			
Insulator (Contacts)	PTFE/PBTP/PI (Contacts)			
Shell	Brass tin plated (Stainless steel on request)			
Retaining clip	Copper alloy			
<b>Technical Data</b>				
Test voltage	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	
Working voltage	250 V AC/DC depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	2 A	10 - 40 A (UL)	
Resistance between mated contacts	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ	
Insulation resistance	≥ 5 GΩ	≥ 1 GΩ	≥ 5 GΩ	
Characteristic impedance		50/75 Ω		
Frequency range		0-2 GHz		
VSWR-value according MIL-C-39012		≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz		
Operating temperature	- 25 °C to + 105 °C			
Mounting style Front or rear panel mounting Panel thickness	min. 1 mm to 1.6 mm			
Insertion force per contact	3.4 N	7 N	7 N	
Extraction force per contact	0.2 N	7 N	approx. 5 N	
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	Temperature	duration	max. Solder bath temperature	max. terminal immersion time
IP67 Combination D-SUB Standard	120 °C	120 s	240 °C	5 s

Technical specifications are subject to change without notice

## IP67 COMBINATION D-SUB CONNECTORS

### Product specification Solid Body

Basic material	Solid Body Connectors with			
	D-SUB signal contacts	HD-SUB signal contacts	Coaxial contacts	High power contacts
Contact	Copper alloy			
Contact plating	Flash gold over nickel			
Insulator (Connector)	PBT GF UL 94 V-0			
Insulator (Contacts)			PBT GF UL 94 V-0	
Shell	Zinc die-cast nickel plated			
Retaining clip			Copper alloy	
<b>Technical Data</b>				
Test voltage	1000 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.
Working voltage	250 V AC/DC	60 V AC/DC	250 V AC/DC	250 V AC/DC
	depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)	2 A	10 - 40 A (UL)
Resistance between mated contacts	max. 10 mΩ	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ
Insulation resistance	≥ 5 GΩ	max. 10 mΩ	≥ 1 GΩ	≥ 5 GΩ
Characteristic impedance			50/75 Ω	
Frequency range			0-2 GHz	
VSWR-value according MIL-C-39012			≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz	
Operating temperature	- 40 °C to + 105 °C			
Mounting style Front or rear panel mounting Panel thickness	min. 1 mm to 1.6 mm			
Insertion force per contact	3.4 N	3.4 N	7 N	7 N
Extraction force per contact	0.2 N	0.2 N	7 N	approx. 5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	Temperature	duration	max. Solder bath temperature	max. terminal immersion time
IP67 Combination D-SUB Solid Body	150 °C	180 s	265 °C	8 s

Technical specifications are subject to change without notice



## IP67 COMBINATION D-SUB CONNECTORS

### Product specification CONEC SlimCon

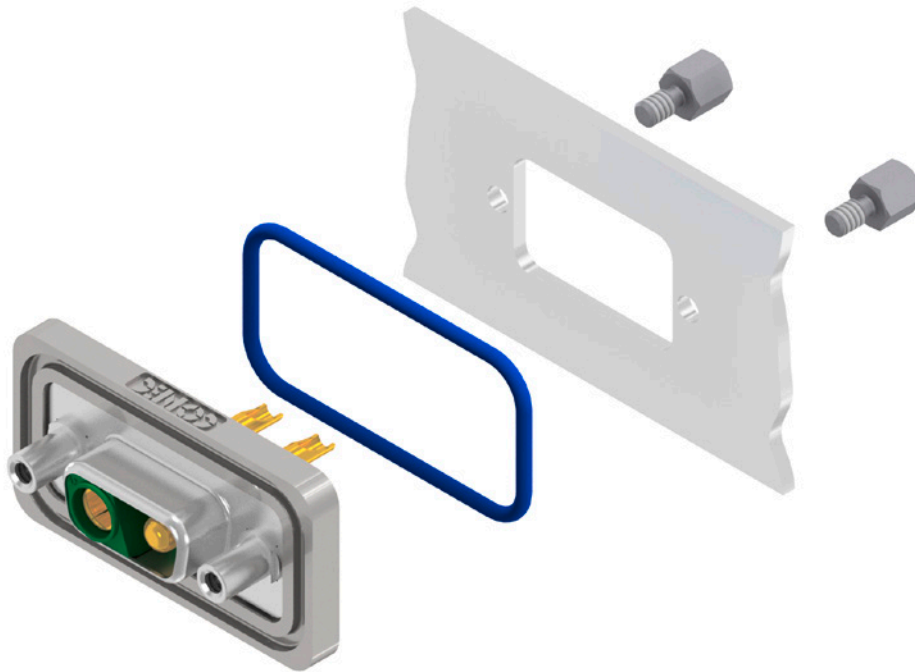
Basic material	CONEC SlimCon Connectors with			
	D-SUB signal contacts	HD-SUB signal contacts	Coaxial contacts	High power contacts
Contact	Copper alloy			
Contact plating	Flash gold over nickel			
Insulator	PBT GF UL 94 V-0			
Insulator			PTFE/PBTP/PI	
Shell	Zinc die-cast nickel plated			
Retaining clip			Copper alloy	
<b>Technische Daten</b>				
Test voltage	1000 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.	750 V, 50 Hz, 1 min.	1000 V, 50 Hz, 1 min.
Working voltage	250 V AC/DC	60 V AC/DC	250 V AC/DC	250 V AC/DC
	depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2.5 A (CSA)	2 A	10 - 40 A (UL)
Resistance between mated contacts	max. 10 mΩ	max. 10 mΩ	max. 2.7 mΩ	max. 1 mΩ
Insulation resistance	≥ 5 GΩ	max. 10 mΩ	≥ 1 GΩ	≥ 5 GΩ
Characteristic impedance			50/75 Ω	
Frequency range			0-2 GHz	
VSWR-value according MIL-C-39012			≤ 1.2 @ 1.2 GHz ≤ 1.3 @ 1.5 GHz ≤ 1.5 @ 2.0 GHz	
Operating temperature	- 40 °C bis + 105 °C			
Mounting style Front or rear panel mounting Panel thickness	min. 0.8 mm to 1.3 mm			
Insertion force per contact	3.4 N	3.4 N	7 N	7 N
Extraction force per contact	0.2 N	0.2 N	7 N	approx. 5 N
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wave-solder parameters	Preheating		Solder terminal dipping parameters	
	Temperature	duration	max. Solder bath temperature	max. terminal immersion time
IP67 Combination D-SUB CONEC SlimCon	150 °C	180 s	265 °C	8 s

Technical specifications are subject to change without notice

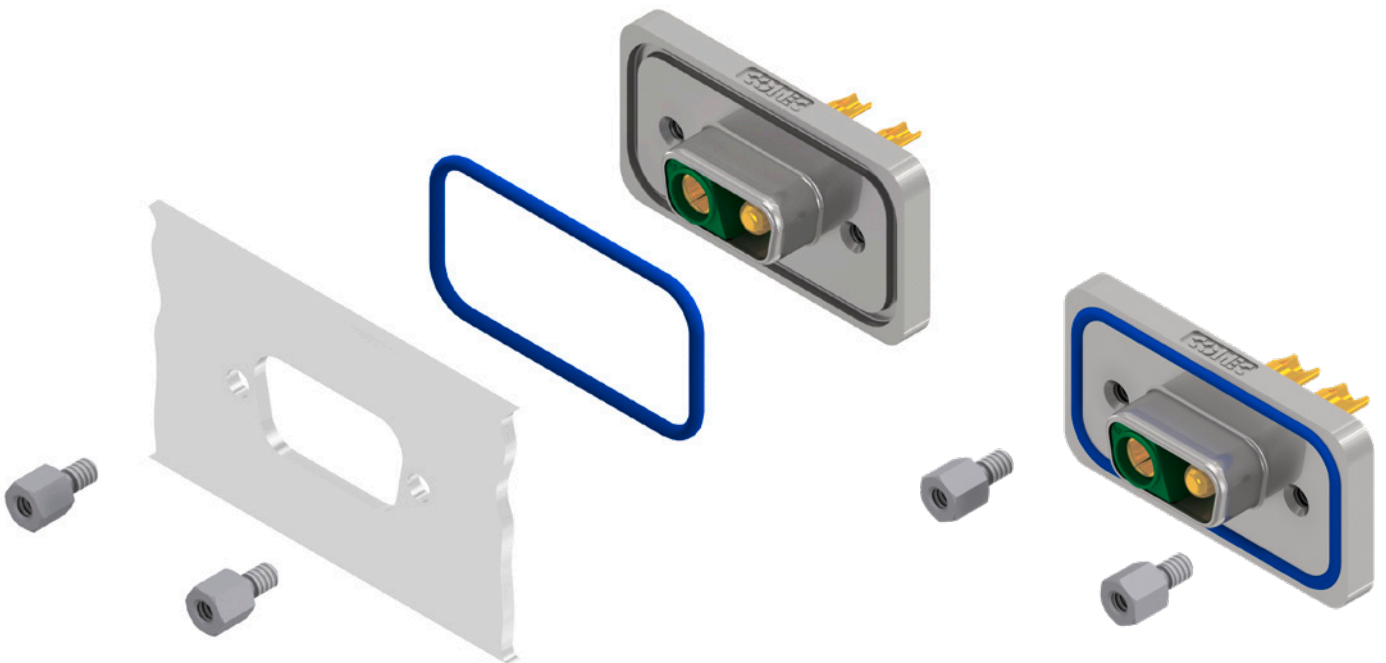
## IP67 COMBINATION D-SUB CONNECTORS

### Panel mounting

#### Front panel mounting



#### Back panel mounting



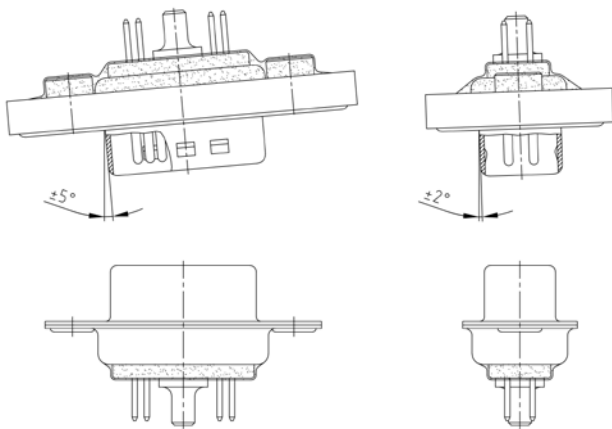
The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm (standard & solid body)/.051"/1.3 mm (CONEC SlimCon) such that it does not extend beyond the plug-in height. Material: stainless steel.

Technical specifications are subject to change without notice.

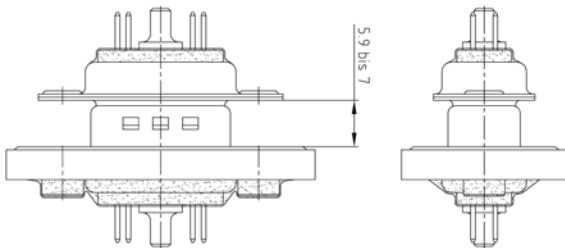
# IP67 COMBINATION D-SUB CONNECTORS

## Mating conditions

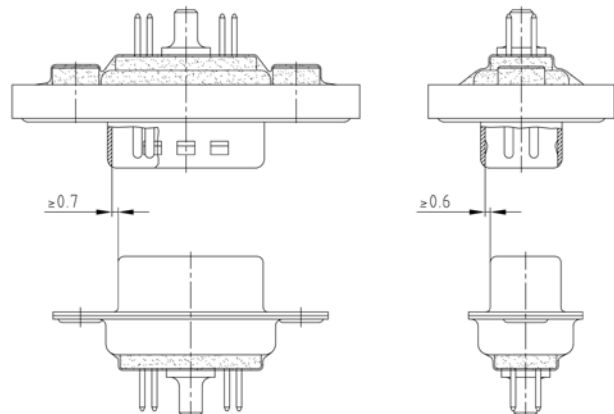
### Max. tilt angle for connector mating



### Range for safe contact

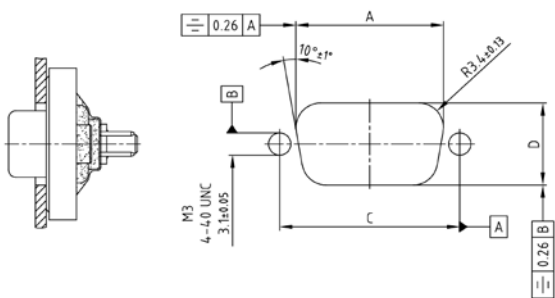


### Lock-in range

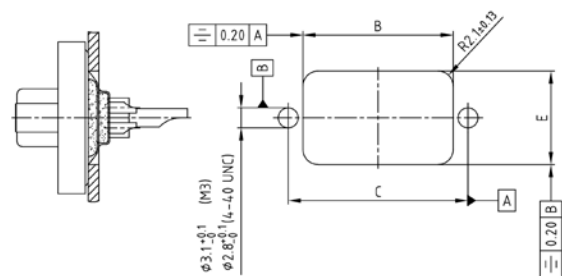


## Panel cut-out

### Back panel mounting



### Front panel mounting



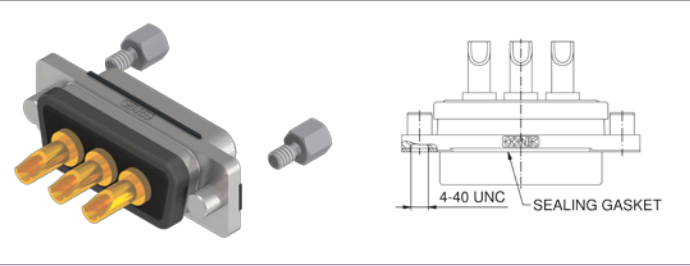
Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
1	20.50	20.90	25.00	11.40	13.00
2	28.80	29.20	33.30	11.40	13.00
3	42.50	42.90	47.04	11.40	13.00
4	59.10	59.40	63.50	11.40	13.00
5	56.30	57.00	61.10	14.10	15.80

Technical specifications are subject to change without notice.

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with high power contacts 20 A**

Solder cup straight  
 Precision machined contacts, AWG 12-14

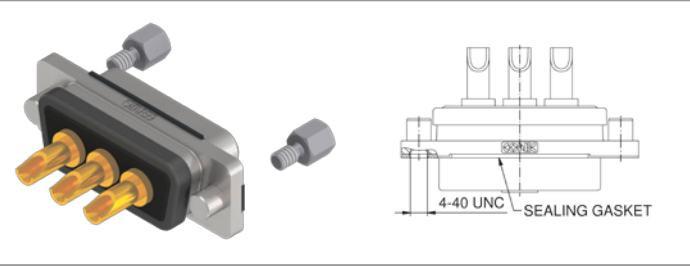
4-40 UNC threaded insert



No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	250	3	15-007953	15-008083
5W5				15-007963	15-008093

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

4-40 UNC threaded insert, coded version

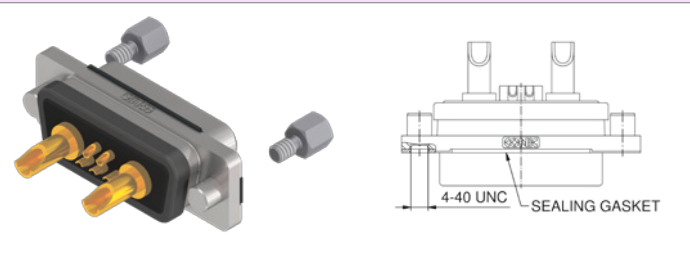


2W2C	20	250	3	15-007933	
3W3C				15-007943	15-008073

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with signal contacts & high power contacts 20 A**

Solder cup straight  
 Precision machined contacts, AWG 20 and AWG 12-14

4-40 UNC threaded insert



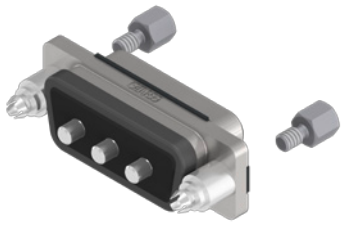
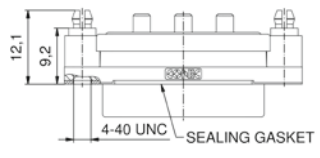
No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
7W2	75 (UI) / 5 (CSA VDE)	20	250	3	15-007973	15-008103

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with high power contacts 20 A**

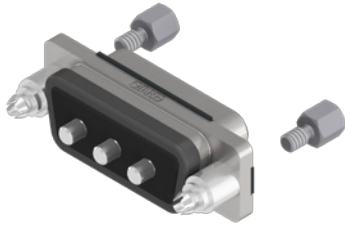
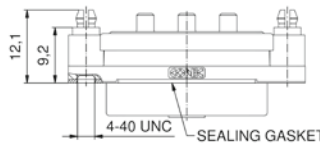
Solder pin straight  
 Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3	20	250	3	15-007083	15-007213
5W5				15-007093	15-007223	

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles


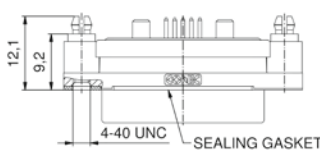
4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm, coded version

 	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C	20	250	3	15-007063	
3W3C				15-007073	15-007203	

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with signal contacts & high power contacts 20 A**

Solder pin straight  
 Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

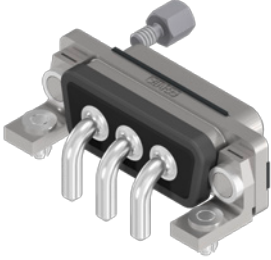
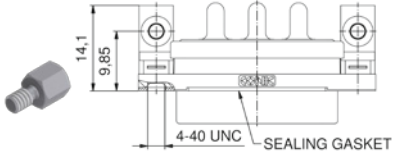
 	No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	7W2	75 (UI) / 5 (CSA VDE)	20	250	3	15-007103	15-007233

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

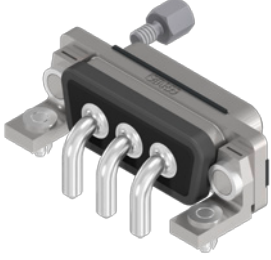
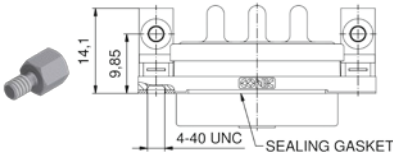
**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with high power contacts 20 A**

Solder pin angled  
 Precision machined contacts, metal bracket

Mounting bracket PCB clip

 	No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3	20	250	3	15-007353	15-007483
5W5				15-007363	15-007493	

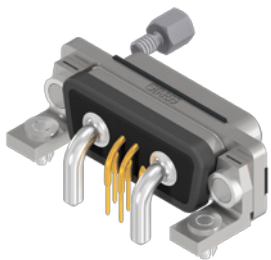
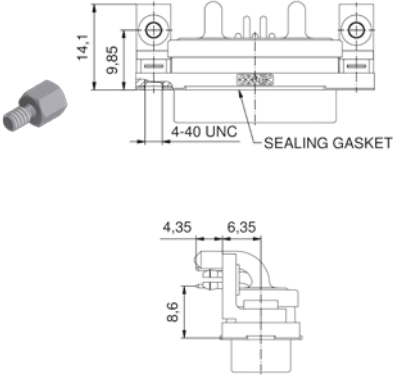
Mounting bracket PCB clip, coded version

 	No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C	20	250	3	15-007333	
3W3C				15-007343	15-007483	

**IP67 COMBINATION D-SUB CONNECTORS**  
**CONEC SlimCon with signal contacts & high power contacts 20 A**

Solder pin angled, .338"/8.6 mm  
 Precision machined contacts, metal bracket

Mounting bracket PCB clip

 	No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	7W2	75 (UI) / 5 (CSA VDE)	20	250	3	15-007373	15-007503

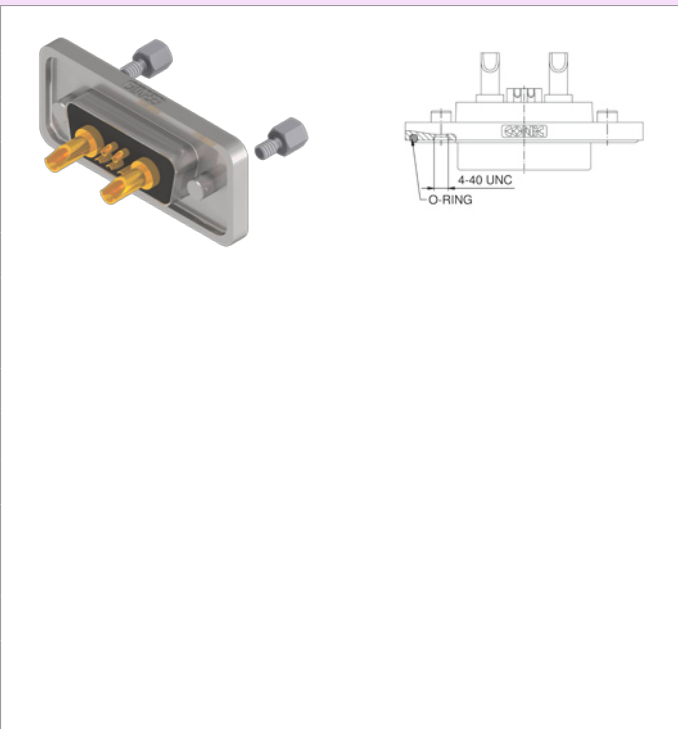
One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

One-piece zinc die-cast nickel plated shell  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with signal & high power contacts 20 A

Solder cup straight  
Precision machined contacts, AWG 20 and AWG 12-14

4-40 UNC threaded insert

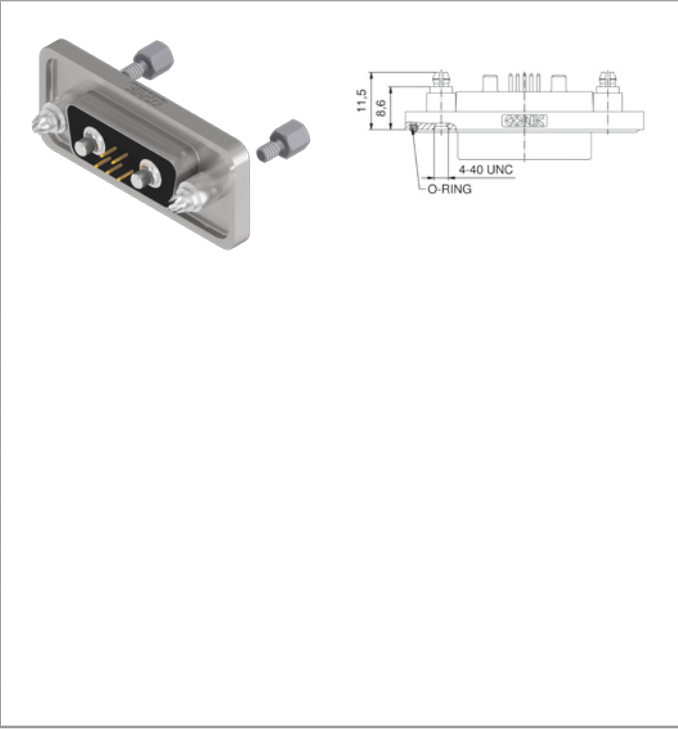


No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UI) / 5 (CSA VDE)	20	250	3	15-005063	15-005193
7W2					15-001103	15-004643
11W1					15-005073	15-005203
9W4					15-005083	15-005213
13W3					15-004563	15-004553
17W2					15-004453	15-004543
21W1					15-005093	15-005223
13W6					15-005103	15-005233
17W5					15-005113	15-005243
21WA4					15-005123	15-005253
25W3					15-005133	15-005263
27W2					15-005143	15-005273
24W7					15-005153	15-005283
36W4					15-005163	15-005293
43W2					15-005173	15-005303
47W1					15-005183	15-005313

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

Solder pin straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



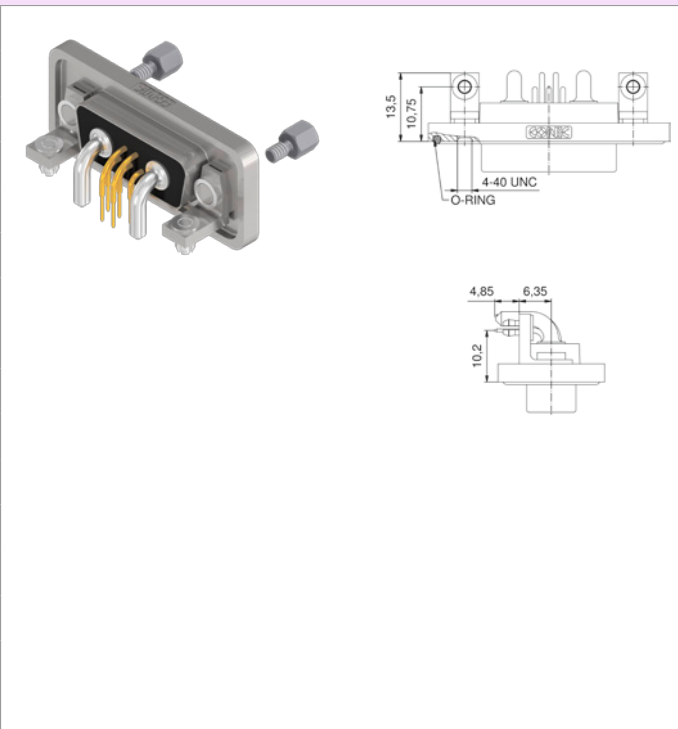
No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UI) / 5 (CSA VDE)	20	250	3	15-005323	15-005473
7W2					15-001823	15-001863
11W1					15-005333	15-005483
9W4					15-005343	15-005493
13W3					15-005353	15-005503
17W2					15-005363	15-005513
21W1					15-005373	15-005523
13W6					15-005383	15-005533
17W5					15-005393	15-005543
21WA4					15-005403	15-005553
25W3					15-005413	15-005563
27W2					15-005423	15-005573
24W7					15-005433	15-005583
36W4					15-005443	15-005593
43W2					15-005453	15-005603
47W1					15-005463	15-005613



**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with signal & high power contacts 20 A

Solder pin angled, .402"/10.2 mm  
Precision machined contacts, metal bracket

Mounting bracket PCB clip



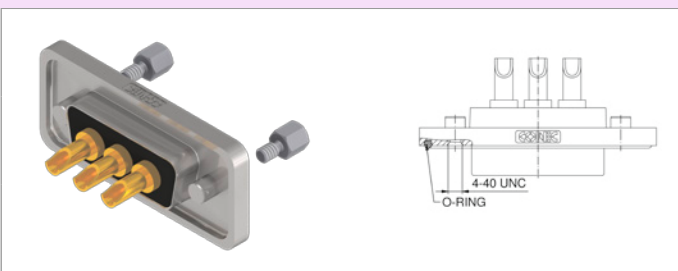
No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	20	250	3	15-005623	15-005763
7W2					15-001463	15-001503
11W1					15-005633	15-005773
9W4					15-005643	15-005783
13W3					15-005653	15-005793
17W2					15-005663	15-002323
21W1					15-005673	15-005803
13W6					15-005683	15-005813
17W5					15-005693	15-005823
21WA4					15-005703	15-005833
25W3					15-005713	15-002333
27W2					15-005723	15-005843
24W7					15-005733	15-005853
36W4					15-005743	15-002293
43W2					15-004593	15-005863
47W1					15-005753	15-005873

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with high power contacts 20 A

Solder cup straight  
Precision machined contacts, AWG 12-14

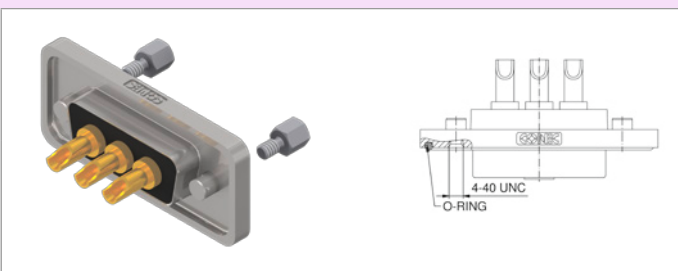
4-40 UNC threaded insert



No. of poles	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
3W3	20	250	3	15-001083	15-001123
5W5				15-001093	15-001133
8W8				15-001613	15-001653

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

4-40 UNC threaded insert, coded version


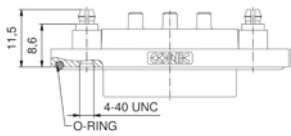


2W2C	20	250	3	15-001063	
3W3C				15-001073	15-001113

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with high power contacts 20 A


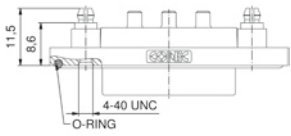
Solder pin straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3				15-001803	15-001843
	5W5	20	250	3	15-001813	15-001853
	8W8				15-002023	

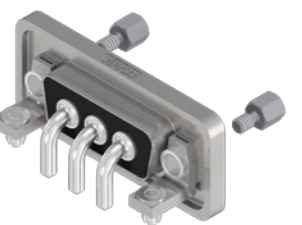
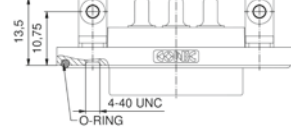
One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

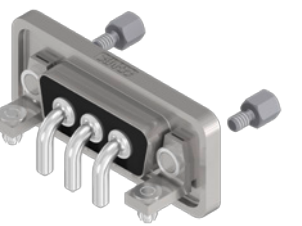
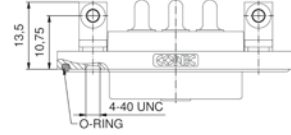
 	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	8W8				15-001783	15-001833
	3W3C	20	250	3	15-001793	15-005883

Solder pin angled  
Precision machined contacts, metal bracket

Mounting bracket PCB clip

 	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	3W3				15-001443	15-001483
	5W5	20	250	3	15-001453	15-001493
	8W8				15-001963	15-001993

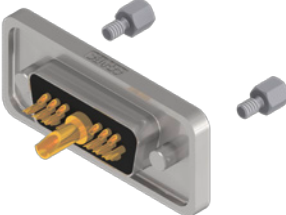
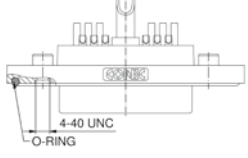
Mounting bracket PCB clip

 	No. of poles	Current rating high power contacts [A]	Betriebsspannung [V]	Quality class	Part No. Socket contact	Part No. Plug contact
	2W2C				15-001423	
	3W3C	20	250	3	15-001433	15-001473

**IP67 COMBINATION D-SUB CONNECTORS**  
Solid Body with signal & high power contacts 20 A

Solder cup straight  
Precision machined contacts, AWG 12-14

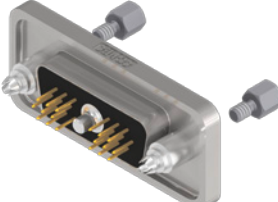
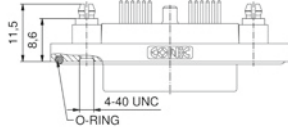
4-40 UNC threaded insert

 	No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2.5 (CSA)	20	60	3	15-005893	15-005923	
19W1					15-005903	15-005933	
45W2					15-005913	15-005943	

One-piece zinc die-cast nickel plated shell  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Quality class 1 (C) = 500 mating cycles

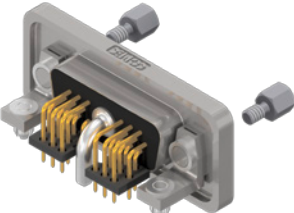
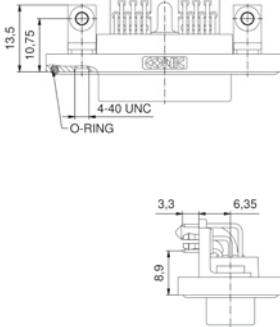
Solder pin straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

 	No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2.5 (CSA)	20	60	3	15-005953	15-005983	
19W1					15-005963	15-005993	
45W2					15-005973	15-006003	

Solder pin angled  
Precision machined contacts, metal bracket

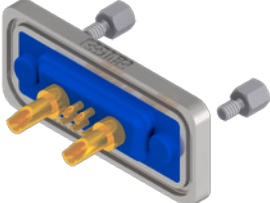
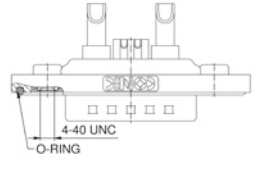
Mounting bracket PCB clip

 	No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	Quality class	Part No. Socket contact	Part No. Plug contact
						Part No. Socket contact	Part No. Plug contact
15W4	3 (UL, VDE) / 2.5 (CSA)	20	60	3	15-006013	15-006043	
19W1					15-006023	15-006053	
45W2					15-006033	15-006063	

**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 10 A

Solder cup  
Precision machined contacts, AWG 20

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UI) / 5 (CSA, VDE)	10	250	E202784	3	6005W1SAM61 B30X	6005W1PAM61 B30X	
	7W2						6007W2SAM61 B30X	6007W2PAM61 B30X	
	11W1						6011W1SAM61 B30X	6011W1PAM61 B30X	
	9W4						6009W4SAM61 B30X	6009W4PAM61 B30X	
	13W3						6013W3SAM61 B30X	6013W3PAM61 B30X	
	17W2						6017W2SAM61 B30X	6017W2PAM61 B30X	
	21W1						6021W1SAM61 B30X	6021W1PAM61 B30X	
	13W6						6013W6SAM61 B30X	6013W6PAM61 B30X	
	17W5						6017W5SAM61 B30X	6017W5PAM61 B30X	
	21WA4						621WA4SAM61 B30X	621WA4PAM61 B30X	
	25W3						6025W3SAM61 B30X	6025W3PAM61 B30X	
	27W2						6027W2SAM61 B30X	6027W2PAM61 B30X	
	24W7						6024W7SAM61 B30X	6024W7PAM61 B30X	
	36W4						6036W4SAM61 B30X	6036W4PAM61 B30X	
	43W2						6043W2SAM61 B30X	6043W2PAM61 B30X	
	47W1						6047W1SAM61 B30X	6047W1PAM61 B30X	

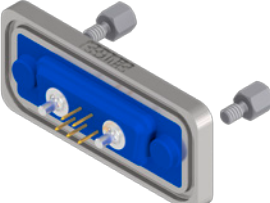
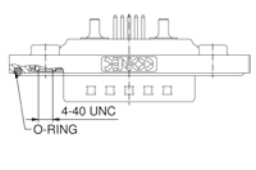
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 20 A

Solder pin straight  
Precision machined contacts

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
 	5W1	75 (UI) / 5 (CSA, VDE)	20	250	E202784	3	6005W1SAR68B30X	6005W1PAR68B30X	
	7W2						6007W2SAR68B30X	6007W2PAR68B30X	
	11W1						6011W1SAR68B30X	6011W1PAR68B30X	
	9W4						6009W4SAR68B30X	6009W4PAR68B30X	
	13W3						6013W3SAR68B30X	6013W3PAR68B30X	
	17W2						6017W2SAR68B30X	6017W2PAR68B30X	
	21W1						6021W1SAR68B30X	6021W1PAR68B30X	
	13W6						6013W6SAR68B30X	6013W6PAR68B30X	
	17W5						6017W5SAR68B30X	6017W5PAR68B30X	
	21WA4						621WA4SAR68B30X	621WA4PAR68B30X	
	25W3						6025W3SAR68B30X	6025W3PAR68B30X	
	27W2						6027W2SAR68B30X	6027W2PAR68B30X	
	24W7						6024W7SAR68B30X	6024W7PAR68B30X	
	36W4						6036W4SAR68B30X	6036W4PAR68B30X	
	43W2						6043W2SAR68B30X	6043W2PAR68B30X	
	47W1						6047W1SAR68B30X	6047W1PAR68B30X	

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 20 A

Solder pin straight  
Precision machined contacts, threaded rear spacer with PCB clip

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

No. of poles		Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1		75 (UL) / 5 (CSA VDE)	20	250	E202784	3	6005W1SAR68E20X	6005W1PAR68E20X
7W2							6007W2SAR68E20X	6007W2PAR68E20X
11W1							6011W1SAR68E20X	6011W1PAR68E20X
9W4							6009W4SAR68E20X	6009W4PAR68E20X
13W3							6013W3SAR68E20X	6013W3PAR68E20X
17W2							6017W2SAR68E20X	6017W2PAR68E20X
21W1							6021W1SAR68E20X	6021W1PAR68E20X
13W6							6013W6SAR68E20X	6013W6PAR68E20X
17W5							6017W5SAR68E20X	6017W5PAR68E20X
21WA4							621WA4SAR68E20X	621WA4PAR68E20X
25W3							6025W3SAR68E20X	6025W3PAR68E20X
27W2							6027W2SAR68E20X	6027W2PAR68E20X
24W7							6024W7SAR68E20X	6024W7PAR68E20X
36W4							6036W4SAR68E20X	6036W4PAR68E20X
43W2							6043W2SAR68E20X	6043W2PAR68E20X
47W1							6047W1SAR68E20X	6047W1PAR68E20X

For other Power contacts select code from spread sheet		
Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 15 A

Solder pin angled, .338"/8.6 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

No. of poles		Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1		75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAT59S20X	6005W1PAT59S20X
7W2							6007W2SAT59S20X	6007W2PAT59S20X
11W1							6011W1SAT59S20X	6011W1PAT59S20X
9W4							6009W4SAT59S20X	6009W4PAT59S20X
13W3							6013W3SAT59S20X	6013W3PAT59S20X
17W2							6017W2SAT59S20X	6017W2PAT59S20X
21W1							6021W1SAT59S20X	6021W1PAT59S20X
13W6							6013W6SAT59S20X	6013W6PAT59S20X
17W5							6017W5SAT59S20X	6017W5PAT59S20X
21WA4							621WA4SAT59S20X	621WA4PAT59S20X
25W3							6025W3SAT59S20X	6025W3PAT59S20X
27W2							6027W2SAT59S20X	6027W2PAT59S20X
24W7							6024W7SAT81S20X	6024W7PAT81S20X
36W4							6036W4SAT81S20X	6036W4PAT81S20X
43W2							6043W2SAT81S20X	6043W2PAT81S20X
47W1							6047W1SAT81S20X	6047W1PAT81S20X

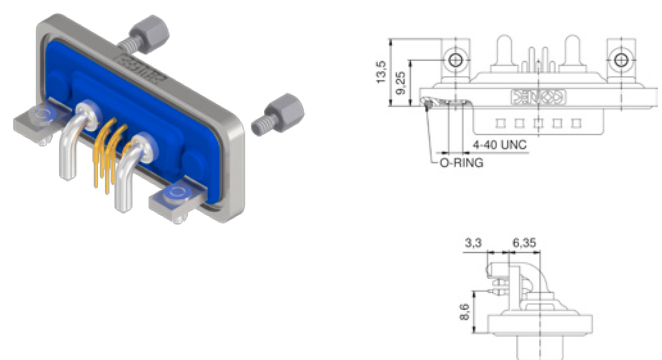
For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 15 A

Solder pin angled, .338"/8.6 mm  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert



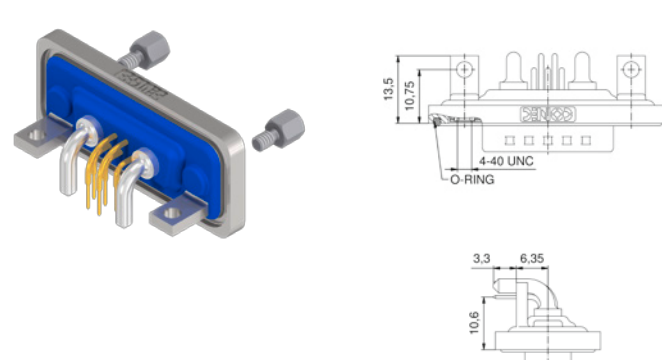
No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAT59S40X	6005W1PAT59S40X
7W2						6007W2SAT59S40X	6007W2PAT59S40X
11W1						6011W1SAT59S40X	6011W1PAT59S40X
9W4						6009W4SAT59S40X	6009W4PAT59S40X
13W3						6013W3SAT59S40X	6013W3PAT59S40X
17W2						6017W2SAT59S40X	6017W2PAT59S40X
21W1						6021W1SAT59S40X	6021W1PAT59S40X
13W6						6013W6SAT59S40X	6013W6PAT59S40X
17W5						6017W5SAT59S40X	6017W5PAT59S40X
21WA4						621WA4SAT59S40X	621WA4PAT59S40X
25W3						6025W3SAT59S40X	6025W3PAT59S40X
27W2						6027W2SAT59S40X	6027W2PAT59S40X
24W7						6024W7SAT81S40X	6024W7PAT81S40X
36W4						6036W4SAT81S40X	6036W4PAT81S40X
43W2						6043W2SAT81S40X	6043W2PAT81S40X
47W1						6047W1SAT81S40X	6047W1PAT81S40X

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75

Solder pin angled, .417"/10.6 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert



No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAU59R20X	6005W1PAU59R20X
7W2						6007W2SAU59R20X	6007W2PAU59R20X
11W1						6011W1SAU59R20X	6011W1PAU59R20X
9W4						6009W4SAU59R20X	6009W4PAU59R20X
13W3						6013W3SAU59R20X	6013W3PAU59R20X
17W2						6017W2SAU59R20X	6017W2PAU59R20X
21W1						6021W1SAU59R20X	6021W1PAU59R20X
13W6						6013W6SAU59R20X	6013W6PAU59R20X
17W5						6017W5SAU59R20X	6017W5PAU59R20X
21WA4						621WA4SAU59R20X	621WA4PAU59R20X
25W3						6025W3SAU59R20X	6025W3PAU59R20X
27W2						6027W2SAU59R20X	6027W2PAU59R20X
24W7						6024W7SAU81R20X	6024W7PAU81R20X
36W4						6036W4SAU81R20X	6036W4PAU81R20X
43W2						6043W2SAU81R20X	6043W2PAU81R20X
47W1						6047W1SAU81R20X	6047W1PAU81R20X

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75
81	5	20 A	2.85
82	5	30 A	3.20
85	5	30 A	3.20
77	5	40 A	3.75



**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 15 A

Solder pin angled, .417" / 10.6 mm  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert				No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																																								
 <table border="1"> <thead> <tr> <th colspan="4">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr><td>59</td><td>1-4</td><td>15 A</td><td>1.90</td></tr> <tr><td>73</td><td>1-4</td><td>20 A</td><td>2.85</td></tr> <tr><td>74</td><td>1-4</td><td>30 A</td><td>3.20</td></tr> <tr><td>75</td><td>1-4</td><td>40 A</td><td>3.75</td></tr> <tr><td>81</td><td>5</td><td>20 A</td><td>2.85</td></tr> <tr><td>82</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>85</td><td>5</td><td>30 A</td><td>3.20</td></tr> <tr><td>77</td><td>5</td><td>40 A</td><td>3.75</td></tr> </tbody> </table>				For other Power contacts select code from spread sheet				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75	81	5	20 A	2.85	82	5	30 A	3.20	85	5	30 A	3.20	77	5	40 A	3.75	5W1	75 (UL) / 5 (CSA VDE)	15	250	E202784	3	6005W1SAU59R40X	6005W1PAU59R40X
				For other Power contacts select code from spread sheet																																															
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				21W1	6021W1SAU59R40X	6021W1PAU59R40X																																													
13W6	6013W6SAU59R40X	6013W6PAU59R40X																																																	
17W5	6017W5SAU59R40X	6017W5PAU59R40X																																																	
21WA4	621WA4SAU59R40X	621WA4PAU59R40X																																																	
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27W2	6027W2SAU59R40X	6027W2PAU59R40X																																																	
24W7	6024W7SAU81R40X	6024W7PAU81R40X																																																	
36W4	6036W4SAU81R40X	6036W4PAU81R40X																																																	
43W2	6043W2SAU81R40X	6043W2PAU81R40X																																																	
47W1	6047W1SAU81R40X	6047W1PAU81R40X																																																	

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 COMBINATION D-SUB CONNECTORS**  
With signal & high power contacts 15 A

Solder pin angled, .610" / 15.5 mm  
Precision machined contacts, metal bracket

4-40 UNC threaded insert

4-40 UNC threaded insert				No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																																								
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				85	5	30 A	3.20																																												
				77	5	40 A	3.75																																												
				7W2	6007W2SAZ59S20X	6007W2PAZ59S20X																																													
				11W1	6011W1SAZ59S20X	6011W1PAZ59S20X																																													
				9W4	6009W4SAZ59S20X	6009W4PAZ59S20X																																													
				13W3	6013W3SAZ59S20X	6013W3PAZ59S20X																																													
				17W2	6017W2SAZ59S20X	6017W2PAZ59S20X																																													
				21W1	6021W1SAZ59S20X	6021W1PAZ59S20X																																													
13W6	6013W6SAZ59S20X	6013W6PAZ59S20X																																																	
17W5	6017W5SAZ59S20X	6017W5PAZ59S20X																																																	
21WA4	621WA4SAZ59S20X	621WA4PAZ59S20X																																																	
25W3	6025W3SAZ59S20X	6025W3PAZ59S20X																																																	
27W2	6027W2SAZ59S20X	6027W2PAZ59S20X																																																	

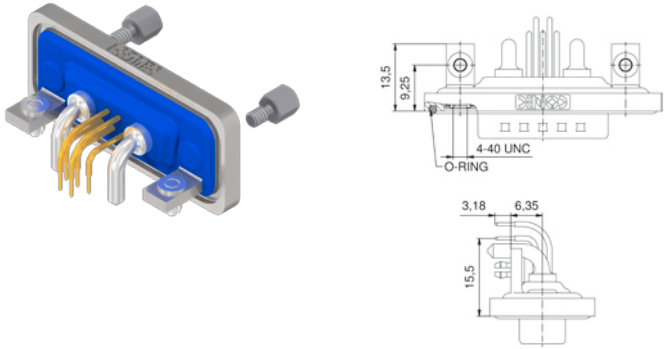
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread  
• Shellsize 5 on request



## IP67 COMBINATION D-SUB CONNECTORS With signal & high power contacts 15 A

Solder pin angled, .610" / 15.5 mm  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

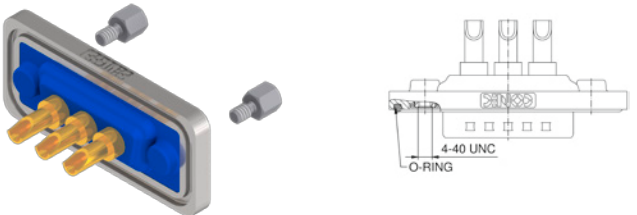
Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																																							
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	77	5	40 A	3.75																																												
	7W2	6007W2SAZ59S40X	6007W2PAZ59S40X																																													
	11W1	6011W1SAZ59S40X	6011W1PAZ59S40X																																													
9W4	6009W4SAZ59S40X	6009W4PAZ59S40X																																														
13W3	6013W3SAZ59S40X	6013W3PAZ59S40X																																														
17W2	6017W2SAZ59S40X	6017W2PAZ59S40X																																														
21W1	6021W1SAZ59S40X	6021W1PAZ59S40X																																														
13W6	6013W6SAZ59S40X	6013W6PAZ59S40X																																														
17W5	6017W5SAZ59S40X	6017W5PAZ59S40X																																														
21WA4	621WA4SAZ59S40X	621WA4PAZ59S40X																																														
25W3	6025W3SAZ59S40X	6025W3PAZ59S40X																																														
27W2	6027W2SAZ59S40X	6027W2PAZ59S40X																																														

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread  
• Shellsize 5 on request

## IP67 COMBINATION D-SUB CONNECTORS With high power contacts 10 A

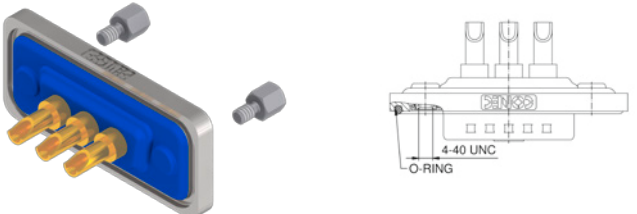
Solder cup straight  
Precision machined contacts

4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact											
 <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>AWG</th> <th>Current rating</th> </tr> </thead> <tbody> <tr><td>61</td><td>16-20</td><td>10 A</td></tr> <tr><td>62</td><td>12-14</td><td>20 A</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	AWG	Current rating	61	16-20	10 A	62	12-14	20 A	3W3	10	250	E202784	3	6003W3SXX61B30X	6003W3PXX61B30X
	For other Power contacts select code from spread sheet																		
	Code	AWG	Current rating																
61	16-20	10 A																	
62	12-14	20 A																	
5W5	10	250	6005W5SXX61B30X	6005W5PXX61B30X															
8W8	250	6008W8SXX61B30X	6008W8PXX61B30X																

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact											
 <table border="1"> <thead> <tr> <th colspan="3">For other Power contacts select code from spread sheet</th> </tr> <tr> <th>Code</th> <th>AWG</th> <th>Current rating</th> </tr> </thead> <tbody> <tr><td>61</td><td>16-20</td><td>10 A</td></tr> <tr><td>62</td><td>12-14</td><td>20 A</td></tr> </tbody> </table>	For other Power contacts select code from spread sheet			Code	AWG	Current rating	61	16-20	10 A	62	12-14	20 A	2W2C	10	250	E202784	3	602W2CSXX61B30X	602W2CPXX61B30X
	For other Power contacts select code from spread sheet																		
	Code	AWG	Current rating																
61	16-20	10 A																	
62	12-14	20 A																	
3W3C	250	603W3CSXX61B30X	603W3CPXX61B30X																

**IP67 COMBINATION D-SUB CONNECTORS**  
With high power contacts 10 A

Solder pin straight  
Precision machined contacts

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

For other Power contacts select code from spread sheet

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3		250	E202784	3	6003W3SXX68E20X	6003W3PXX68E20X
5W5	20	250			6005W5SXX68E20X	6005W5PXX68E20X
8W8		250			6008W8SXX68E20X	6008W8PXX68E20X

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm, coded version

Code	Current rating	Diameter solder pin
68	20 A	1.95
69	20 A	2.60
70	20 A	2.85
71	30 A	3.18
72	40 A	3.75

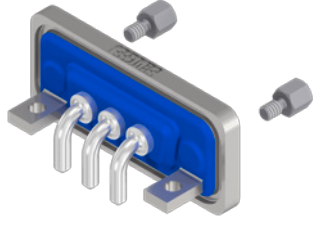
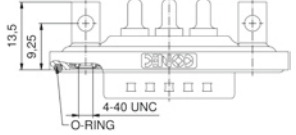
For other Power contacts select code from spread sheet

2W2C		250	E202784	3	602W2CSXX68E20X	602W2CPXX68E20X
	20					
3W3C		250			603W3CSXX68E20X	603W3CPXX68E20X

## IP67 COMBINATION D-SUB CONNECTORS With high power contacts 15 A

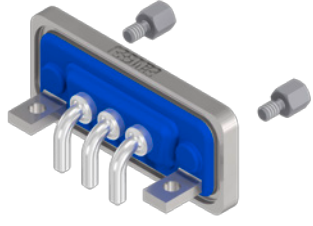
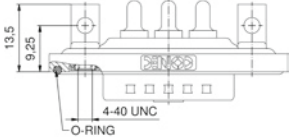
Solder pin angled  
Precision machined contacts, metal bracket

### 4-40 UNC threaded insert

4-40 UNC threaded insert		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																			
 	3W3	250	E202784	3	6003W3SXX59S20X	6003W3PXX59S20X																					
	5W5	15			250	6005W5SXX59S20X	6005W5PXX59S20X																				
	8W8	250			6008W8SXX59S20X	6008W8PXX59S20X																					
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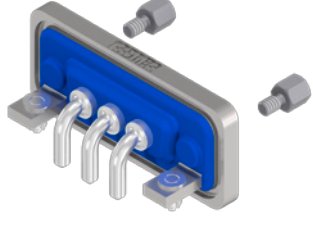
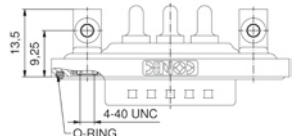
Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

### 4-40 UNC threaded insert, coded version

4-40 UNC threaded insert, coded version		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																			
 	2W2C	250	E202784	3	602W2CSXX59S20X	602W2CPXX59S20X																					
	3W3C	15			250	603W3CSXX59S20X	603W3CPXX59S20X																				
	3W3C	250			603W3CSXX59S20X	603W3CPXX59S20X																					
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74	1-4	30 A	3.20																								
75	1-4	40 A	3.75																								

Solder pin angled  
Precision machined contacts, metal bracket with PCB clip

### Clip for PCB 1.6 mm, 4-40 UNC threaded insert

Clip for PCB 1.6 mm, 4-40 UNC threaded insert		No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact																			
 	3W3	250	E202784	3	6003W3SXX59S40X	6003W3PXX59S40X																					
	5W5	15			250	6005W5SXX59S40X	6005W5PXX59S40X																				
	8W8	250			6008W8SXX59S40X	6008W8PXX59S40X																					
<p>For other Power contacts select code from spread sheet</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Shellsize</th> <th>Current rating</th> <th>Diameter solder pin</th> </tr> </thead> <tbody> <tr> <td>59</td> <td>1-4</td> <td>15 A</td> <td>1.90</td> </tr> <tr> <td>73</td> <td>1-4</td> <td>20 A</td> <td>2.85</td> </tr> <tr> <td>74</td> <td>1-4</td> <td>30 A</td> <td>3.20</td> </tr> <tr> <td>75</td> <td>1-4</td> <td>40 A</td> <td>3.75</td> </tr> </tbody> </table>				Code	Shellsize	Current rating	Diameter solder pin	59	1-4	15 A	1.90	73	1-4	20 A	2.85	74	1-4	30 A	3.20	75	1-4	40 A	3.75				
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## IP67 COMBINATION D-SUB CONNECTORS With high power contacts 15 A

Solder pin angled  
Precision machined contacts, metal bracket with PCB clip

Clip for PCB 1.6 mm, 4-40 UNC threaded insert, coded Version

For other Power contacts select code from spread sheet			
Code	Shellsize	Current rating	Diameter solder pin
59	1-4	15 A	1.90
73	1-4	20 A	2.85
74	1-4	30 A	3.20
75	1-4	40 A	3.75

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C	15	250	E202784	3	602W2CSXX59S40X	602W2CPXX59S40X
3W3C		250				

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

## IP67 COMBINATION D-SUB CONNECTORS Without frame, with signal & high power contacts 20 A

Solder cup straight  
Precision machined contacts, design for use with hood

Through-hole Ø 3 mm

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact		
9W4	75 (UI) / 5 (CSA VDE)	10	250	E202784	3	4005W1SAM61A10X	4005W1PAM61A10X		
7W2								4007W2SAM61A10X	4007W2PAM61A10X
17W5								4011W1SAM61A10X	4011W1PAM61A10X
9W4								4009W4SAM61A10X	4009W4PAM61A10X
21W1								4013W3SAM61A10X	4013W3PAM61A10X
24W7								4017W2SAM61A10X	4017W2PAM61A10X
27W2								4021W1SAM61A10X	4021W1PAM61A10X
24W7								4013W6SAM61A10X	4013W6PAM61A10X
25W3								4017W5SAM61A10X	4017W5PAM61A10X
21WA4								421WA4SAM61A10X	421WA4PAM61A10X
43W2								4025W3SAM61A10X	4025W3PAM61A10X
47W1								4027W2SAM61A10X	4027W2PAM61A10X
36W4								4024W7SAM61A10X	4024W7PAM61A10X
21WA4								4036W4SAM61A10X	4036W4PAM61A10X
43W2								4043W2SAM61A10X	4043W2PAM61A10X
47W1								4047W1SAM61A10X	4047W1PAM61A10X

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles

**IP67 COMBINATION D-SUB CONNECTORS**  
Without frame, with high power contacts 10 A

Solder cup straight  
Precision machined contacts, design for use with hood

Through-hole Ø 3 mm

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
8W8		250	E202784	3	4003W3SXX61A10X	4003W3PXX61A10X
11W1	10	250			4005W5SXX61A10X	4005W5PXX61A10X
13W3		250			4008W8SXX61A10X	4008W8PXX61A10X

Shell: Brass tin plated  
Quality class 3 (A) = 50 mating cycles  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles

Through-hole Ø 3 mm, coded version

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
2W2C		250	E202784	3	402W2CSXX61A10X	402W2CPXX61A10X
3W3C	10	250			403W3CSXX61A10X	403W3CPXX61A10X

**IP67 COMBINATION D-SUB CONNECTORS**  
Front panel mounting, with signal & high power contacts

Solder cup straight  
Precision machined contacts

Front spacer 4-40 UNC

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating signal contacts [A]	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
5W1				E202784	3	6005W1SAM61B50X	6005W1PAM61B50X
7W2						6007W2SAM61B50X	6007W2PAM61B50X
11W1						6011W1SAM61B50X	6011W1PAM61B50X
9W4						6009W4SAM61B50X	6009W4PAM61B50X
13W3						6013W3SAM61B50X	6013W3PAM61B50X
17W2						6017W2SAM61B50X	6017W2PAM61B50X
21W1						6021W1SAM61B50X	6021W1PAM61B50X
13W6						6013W6SAM61B50X	6013W6PAM61B50X
17W5						6017W5SAM61B50X	6017W5PAM61B50X
21WA4						621WA4SAM61B50X	621WA4PAM61B50X
25W3						6025W3SAM61B50X	6025W3PAM61B50X
27W2						6027W2SAM61B50X	6027W2PAM61B50X
24W7						6024W7SAM61B50X	6024W7PAM61B50X
36W4						6036W4SAM61B50X	6036W4PAM61B50X
43W2						6043W2SAM61B50X	6043W2PAM61B50X
47W1						6047W1SAM61B50X	6047W1PAM61B50X

Shell: Brass tin plated  
Nickel plated die-cast frame  
Quality class 3 (A) = 50 mating cycles  
Stainless steel hex bolts are supplied loose  
On request:  
• Shell: Stainless steel  
• Quality class 1 (C) = 500 mating cycles  
• M3 thread

**IP67 COMBINATION D-SUB CONNECTORS 20 A**  
**Front panel mounting, with high power contacts**

**Solder cup straight**  
**Precision machined contacts**

**Front spacer 4-40 UNC**

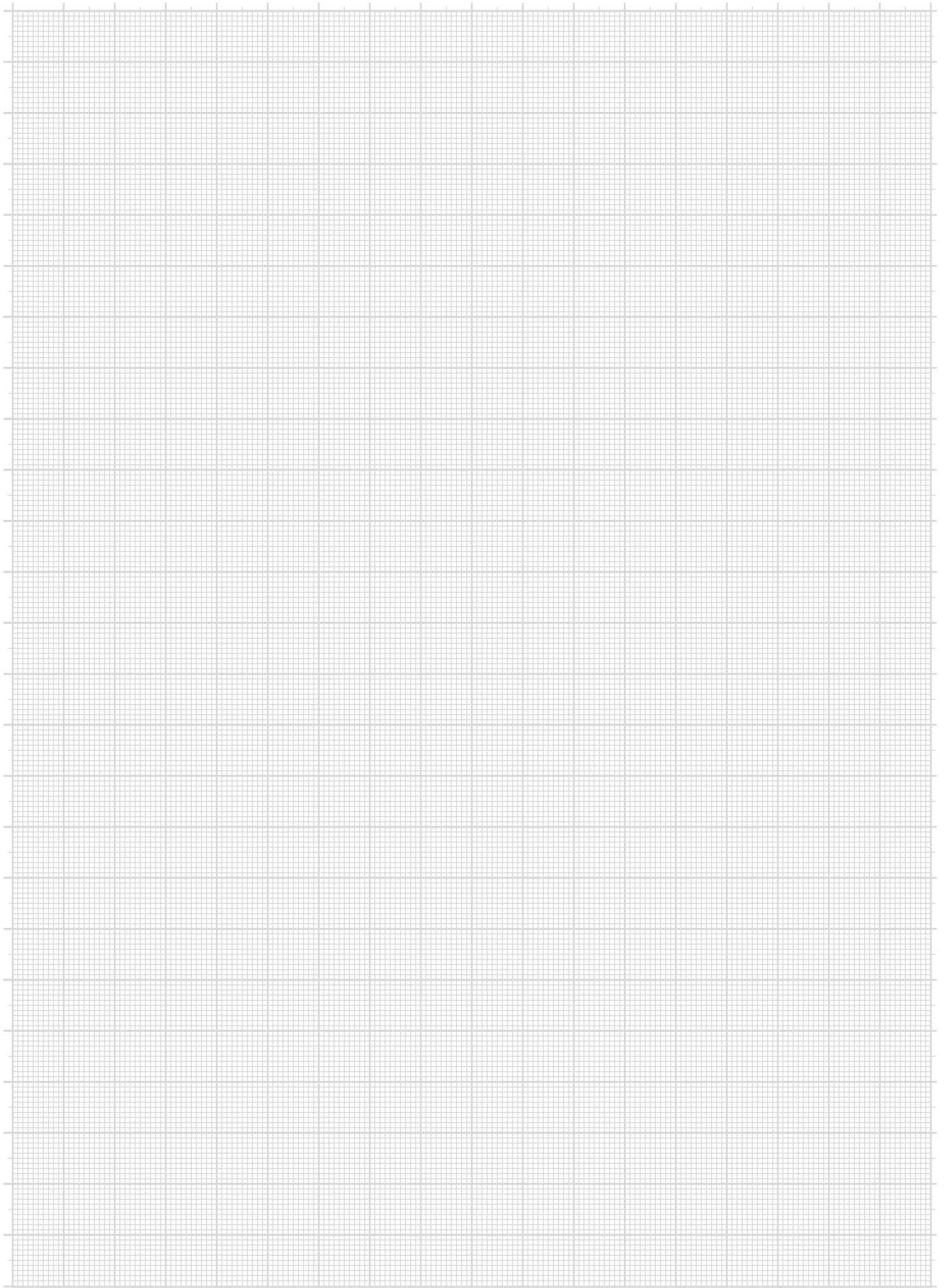
For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

**Front spacer 4-40 UNC, coded version**

For other Power contacts select code from spread sheet		
Code	AWG	Current rating
61	16-20	10 A
62	12-14	20 A

No. of poles	Current rating high power contacts [A]	Working voltage [V]	UL-File	Quality class	Part No. Socket contact	Part No. Plug contact
3W3		250	E202784	3	6003W3SXX61 B50X	6003W3PXX61 B50X
5W5	10	250			6005W5SXX61 B50X	6005W5PXX61 B50X
8W8		250			6008W8SXX61 B50X	6008W8PXX61 B50X
2W2C		250	E202784	3	602W2CSXX61 B50X	602W2CPXX61 B50X
3W3C	10	250			603W3CSXX61 B50X	603W3CPXX61 B50X

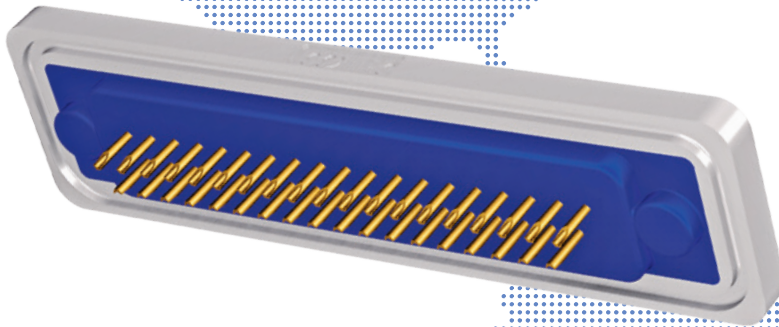
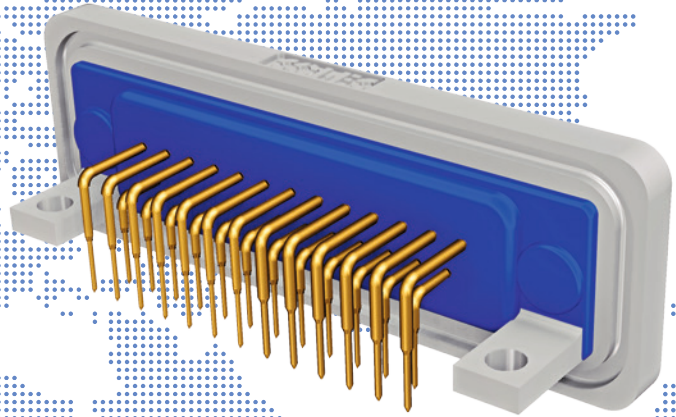
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Shell: Stainless steel  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread





SECTION 8

# IP67 FILTER D-SUB CONNECTORS





## IP67 FILTER D-SUB CONNECTORS

### Part Number Creator

6 S T F 0 9 P A M 0 4 B 3 0 X

#### Product Line

- 4\* = Shell brass tin plated with plastic frame or without frame
- 6 = Shell brass tin plated with metal frame (Standard)  
(\*on request)

#### Variations

- STF = D-Subminiatur Standard filtered
- HDF = D-Subminiatur High Density filtered

#### No. of pos. for STF

- 09 = 09-pos.
- 15 = 15-pos.
- 25 = 25-pos.
- 37 = 37-pos.
- 50 = 50-pos.

#### No. of pos. for HDF

- 15 = 15-pos.
- 26 = 26-pos.
- 44 = 44-pos.
- 62 = 62-pos.
- 78 = 78-pos.

- P = Plug connector (Standard)  
(Socket connector on request)

#### Quality class / Plating code for contacts

- A = Quality class 3 = 50 mating cycles
- B = Quality class 2 = 200 mating cycles
- C = Quality class 1 = 500 mating cycles

#### Termination

- M = Solder cup only for STF
- R = Solder pin, straight
- T = Solder pin, angled, 4.80 mm only for STF
- U = Solder pin, angled, 7.00 mm only for STF
- Z = Solder pin, angled, 11.80 mm only for STF
- Y = Solder pin, angled, 5.60 mm only for HDF

#### Capacitance

- 03 = 370 pF ± 20% tolerance
- 04 = 830 pF ± 20% tolerance
- 05\* = 1300 pF ± 20% tolerance \* not applicable for HDF

#### Mounting style

- A1 = Riveted through hole for cable mount / Shell without sealing frame
- B3 = 4-40 UNC threaded insert
- B5 = Threaded lock for 4-40 UNC front mounting
- E2 = 4-40 UNC threaded rear spacer with PCB clip, PCB .063" / 1.60 mm
- S2 = Metal bracket 4-40 UNC threaded insert
- S4 = Metal bracket 4-40 UNC threaded insert and PCB clip
- R2 = Metal bracket 4-40 UNC threaded insert
- R4 = Metal bracket 4-40 UNC threaded insert and PCB clip

- OX = Standard

## IP67 FILTER D-SUB CONNECTORS

### Product specification

Basic material	IP67 Filter D-SUB Standard 9-, 15-, 25-, 37-, 50-pos.	IP67 Filter D-SUB High Density 15-, 26-, 44-, 62-pos.	IP67 Filter D-SUB SlimCon 9-, 15-, 25-pos.	
Contact	Copper alloy			
Contact plating	Gold over nickel			
Insulator	PBT GF UL94 V-0			
Shell	Brass tin plated		Zinc die-cast nickel plated	
Seal	O-Ring Silicone		Sealing Gasket Silicone or EMC	
<b>Technical Data</b>				
Dielectric with standing voltage	424 V DC	300 V DC	424 V DC	
Working voltage	100 V DC* *depending on isolation coordination refer to DIN VDE 0110 / IEC 664-1			
Voltage surge 10/700 µs	300 V			
Current rating	7.5 A (UL) / 5 A (CSA, VDE)	3 A (UL, VDE) / 2,5 A (CSA)	5 A	
Contact resistance	max. 10 mΩ prior to stressing ΔR max. 10 mΩ after stressing per IEC 60807-2			
Insulation resistance	≥ 1 GΩ			
Capacitor Values	370 pF ± 20 % 830 pF ± 20 % 1300 pF ± 20 %	370 pF ± 20 % 830 pF ± 20 %  other capacitor values on request	370 pF ± 20 % 820 pF ± 20 % 1200 pF ± 20 %	
Operating temperature	-25 °C bis/to +105 °C	-25 °C bis/to +85 °C	-40 °C bis/to +105 °C	
Humidity	40 °C / 85% Relative humidity			
Mating and unmating forces	9-pos. ≤ 30 N 15-pos. ≤ 50 N 25-pos. ≤ 83 N 37-pos. ≤ 123 N 50-pos. ≤ 167 N	15-pos. ≤ 50 N 26-pos. ≤ 84 N 44-pos. ≤ 120 N 67-pos. ≤ 170 N	9-pos. ≤ 30 N 15-pos. ≤ 50 N 25-pos. ≤ 83 N	
Quality class	A = Quality class 3 = 50 mating cycles B = Quality class 2 = 200 mating cycles C = Quality class 1 = 500 mating cycles			
Recommended wavesolder parameters	Preheating		Solder terminal dipping parameters	
	max. temperature	duration (max.)	max. Solder bath temperature	max. terminal immersion time
IP67 Filter D-SUB Standard	100 °C	30 s	260 °C	5 s
IP67 Filter D-SUB High Density	100 °C	30 s	260 °C	5 s
IP67 Filter D-SUB SlimCon	150 °C	180 s	265 °C	8 s

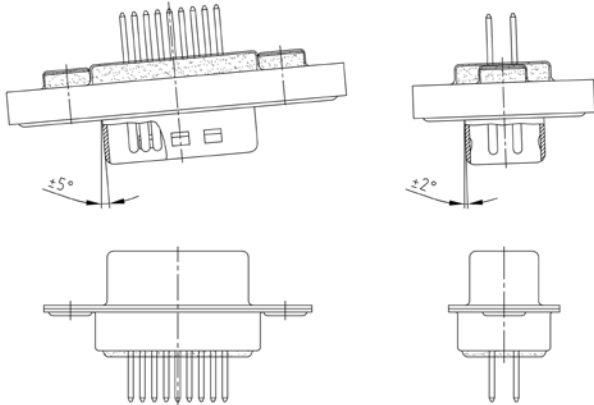
Technical specifications are subject to change without notice



# IP67 FILTER D-SUB CONNECTORS

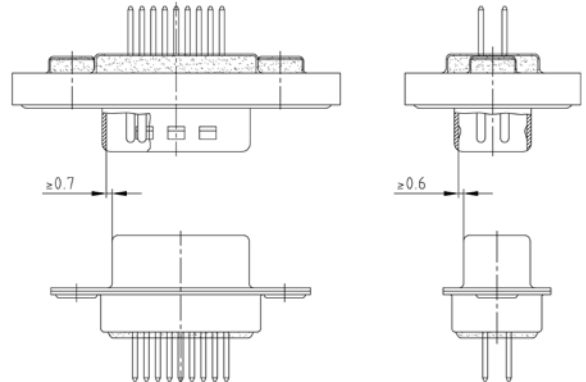
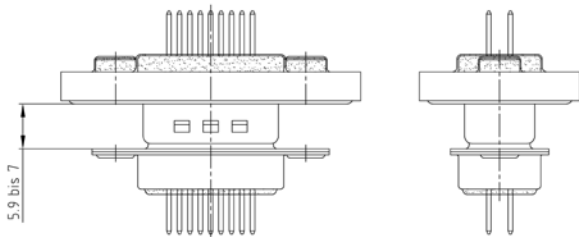
## Mating conditions

### Max. tilt angle for connector mating



### Range for safe contact

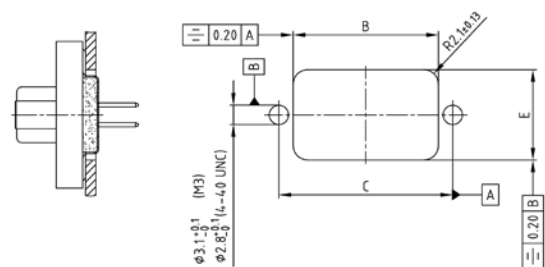
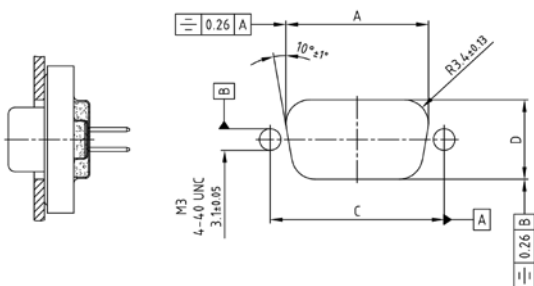
### Lock-in range



## Panel cut-out

### Rear panel mounting

### Front panel mounting

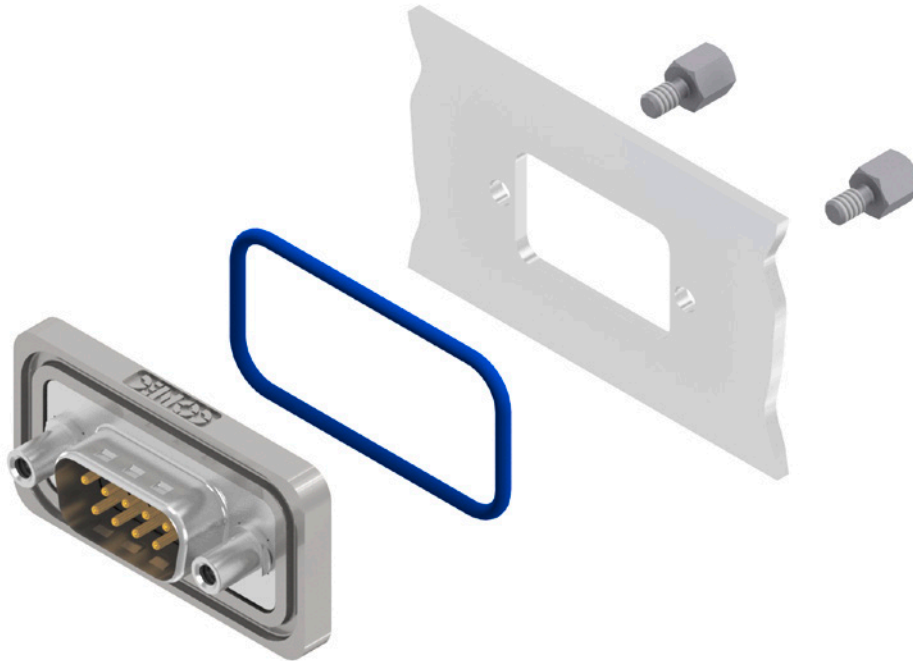


Shell size	A ± 0.1	B ± 0.1	C ± 0.1	D ± 0.1	E ± 0.1
9	20.50	20.90	25.00	11.40	13.00
15	28.80	29.20	33.30	11.40	13.00
25	42.50	42.90	47.04	11.40	13.00
37	59.10	59.40	63.50	11.40	13.00
50	56.30	57.00	61.10	14.10	15.80

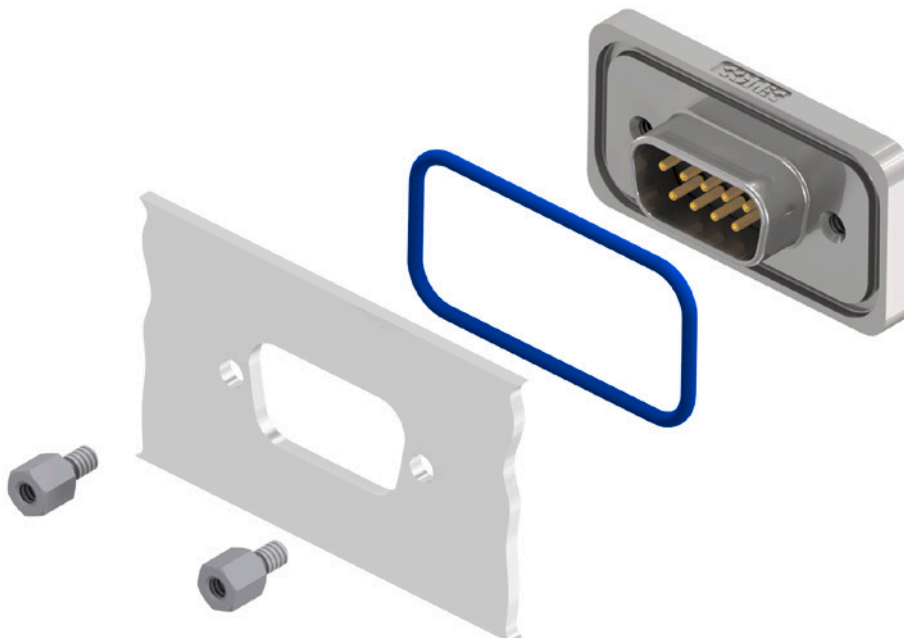
## IP67 FILTER D-SUB CONNECTORS

### Panel mounting

#### Front panel mounting



#### Back panel mounting

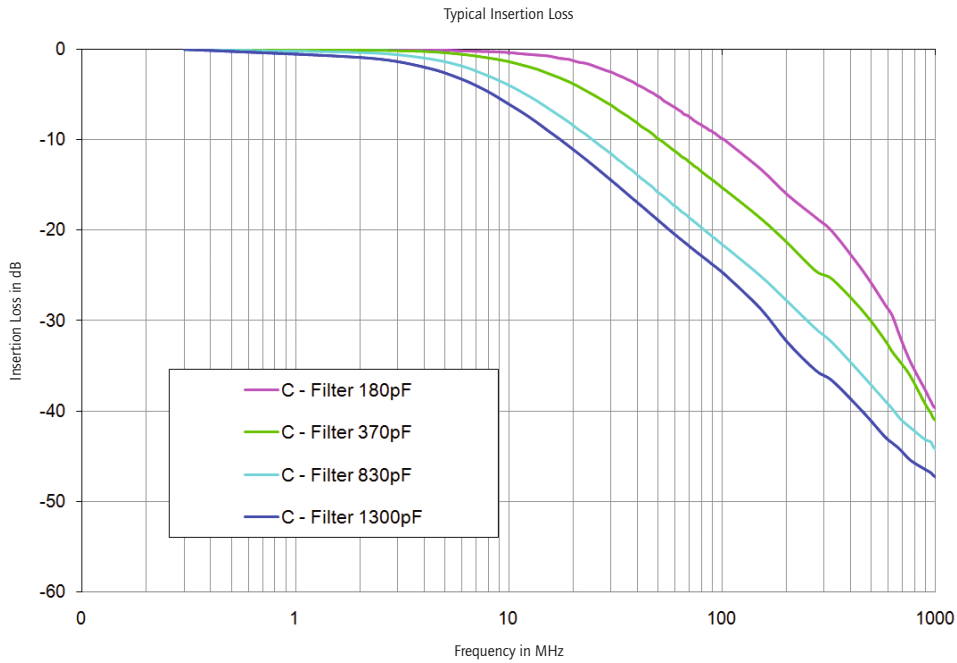


The hex bolts illustrated here (4-40 UNC or M3 threads) are included in the delivery complement of every connector with a sealing frame. The length of this spacer has been selected to accommodate a panel thickness of .063"/1.6 mm (Standard) / .051"/1.3 mm (CONEC SlimCon) such that it does not extend beyond the plug-in height. Material: stainless steel.

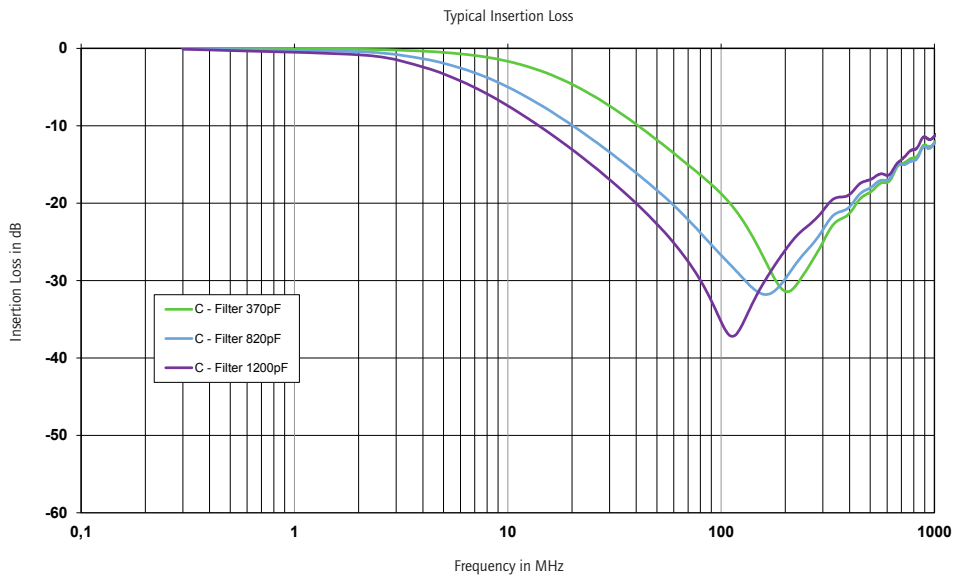
## IP67 FILTER D-SUB CONNECTORS

### Insertion loss

#### C-Filter with planar filter technology



#### C-Filter with chip technology (CONEC SlimCon)



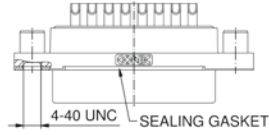
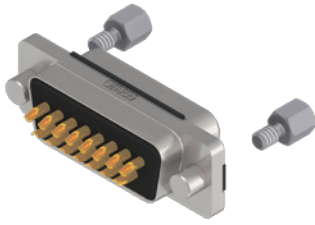
Technical specifications are subject to change without notice.



**IP67 FILTER D-SUB CONNECTORS**  
**CONEC SlimCon, C-Filter, Standard**

Solder cup  
 Precision machined contacts, AWG20

4-40 UNC threaded insert



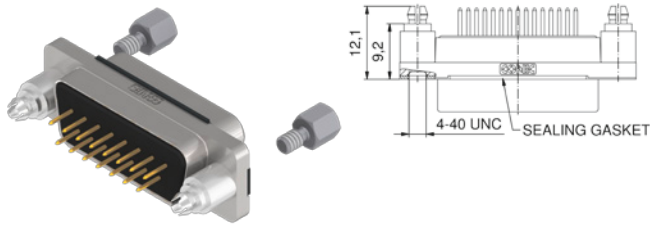
One-piece zinc die-cast nickel plated shell  
 EMC Gasket or Silicone Gasket  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • Gaskets also available separately

No. of poles	Current rating [A]	Working voltage [V]	Quality class	Capacitance [pF]	EMC gasket	Silicone gasket	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)						15-008983	15-008943
15	75 (UL) / 5 (CSA VDE)	100	3	370	✓		15-008993	15-008953
25	75 (UL) / 5 (CSA VDE)						15-009003	15-008963
09	75 (UL) / 5 (CSA VDE)						15-009063	15-009023
15	75 (UL) / 5 (CSA VDE)	100	3	820	✓		15-009073	15-009033
25	75 (UL) / 5 (CSA VDE)						15-009083	15-009043
09	75 (UL) / 5 (CSA VDE)						15-009143	15-009103
15	75 (UL) / 5 (CSA VDE)	100	3	1200	✓		15-009153	15-009113
25	75 (UL) / 5 (CSA VDE)						15-009163	15-009123
09	75 (UL) / 5 (CSA VDE)						15-009463	15-009423
15	75 (UL) / 5 (CSA VDE)	100	3	370		✓	15-009473	15-009433
25	75 (UL) / 5 (CSA VDE)						15-009483	15-009443
09	75 (UL) / 5 (CSA VDE)						15-009543	15-009503
15	75 (UL) / 5 (CSA VDE)	100	3	820		✓	15-009553	15-009513
25	75 (UL) / 5 (CSA VDE)						15-009563	15-009523
09	75 (UL) / 5 (CSA VDE)						15-009623	15-009583
15	75 (UL) / 5 (CSA VDE)	100	3	1200		✓	15-009633	15-009593
25	75 (UL) / 5 (CSA VDE)						15-009643	15-009603

**IP67 FILTER D-SUB CONNECTORS**  
**CONEC SlimCon, C-Filter, Standard**

Solder pin, straight  
 Precision machined contacts

Clip for PCB 1.6 mm, 4-40 UNC threaded insert



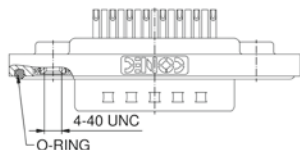
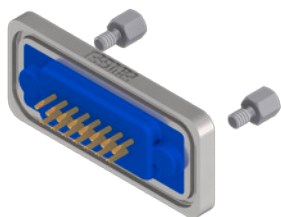
One-piece zinc die-cast nickel plated shell  
 EMC Gasket or Silicone Gasket  
 Quality class 3 (A) = 50 mating cycles  
 Stainless steel hex bolts are supplied loose  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • Gaskets also available separately

No. of poles	Current rating [A]	Working voltage [V]	Quality class	Capacitance [pF]	EMC gasket	Silicone gasket	Part No. Socket contact	Part No. Plug contact
09	75 (UL) / 5 (CSA VDE)						15-009223	15-009183
15	100	3	370	✓		15-009233	15-009193	
25	75 (UL) / 5 (CSA VDE)						15-009243	15-009203
09	75 (UL) / 5 (CSA VDE)						15-009303	15-009263
15	100	3	820	✓		15-009313	15-009273	
25	75 (UL) / 5 (CSA VDE)						15-009323	15-009283
09	75 (UL) / 5 (CSA VDE)						15-009383	15-009343
15	100	3	1200	✓		15-009393	15-009353	
25	75 (UL) / 5 (CSA VDE)						15-009403	15-009363
09	75 (UL) / 5 (CSA VDE)						15-009703	15-009663
15	100	3	370		✓	15-009713	15-009673	
25	75 (UL) / 5 (CSA VDE)						15-009723	15-009683
09	75 (UL) / 5 (CSA VDE)						15-009783	15-009743
15	100	3	820		✓	15-009793	15-009753	
25	75 (UL) / 5 (CSA VDE)						15-009803	15-009763
09	75 (UL) / 5 (CSA VDE)						15-009863	15-009823
15	100	3	1200		✓	15-009873	15-009833	
25	75 (UL) / 5 (CSA VDE)						15-009883	15-009843

**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard

Solder cup  
 Precision machined contacts, AWG 26

4-40 UNC threaded insert



Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

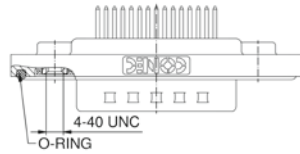
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAM03B30X
15						6STF15PAM03B30X
25						6STF25PAM03B30X
37						6STF37PAM03B30X
50						6STF50PAM03B30X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAM04B30X
15						6STF15PAM04B30X
25						6STF25PAM04B30X
37						6STF37PAM04B30X
50						6STF50PAM04B30X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAM05B30X
15						6STF15PAM05B30X
25						6STF25PAM05B30X
37						6STF37PAM05B30X
50						6STF50PAM05B30X

**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard

Solder pin, straight  
 Precision machined contacts

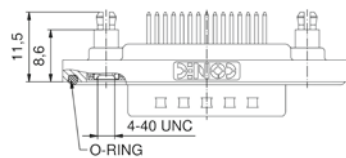
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAR03B30X
15						6STF15PAR03B30X
25						6STF25PAR03B30X
37						6STF37PAR03B30X
50						6STF50PAR03B30X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAR04B30X
15						6STF15PAR04B30X
25						6STF25PAR04B30X
37						6STF37PAR04B30X
50						6STF50PAR04B30X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAR05B30X
15						6STF15PAR05B30X
25						6STF25PAR05B30X
37						6STF37PAR05B30X
50						6STF50PAR05B30X

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm



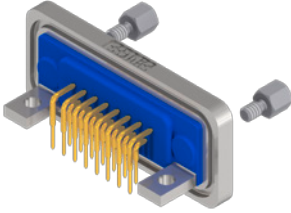
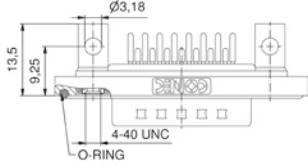
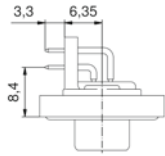
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAR03E20X
15						6STF15PAR03E20X
25						6STF25PAR03E20X
37						6STF37PAR03E20X
50						6STF50PAR03E20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAR04E20X
15						6STF15PAR04E20X
25						6STF25PAR04E20X
37						6STF37PAR04E20X
50						6STF50PAR04E20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAR05E20X
15						6STF15PAR05E20X
25						6STF25PAR05E20X
37						6STF37PAR05E20X
50						6STF50PAR05E20X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

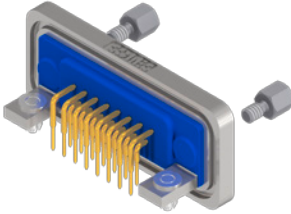
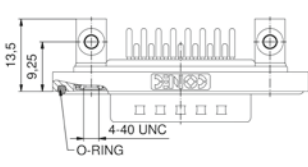
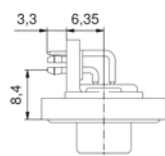
Solder pin angled, .331"/8.4 mm  
 Precision machined contacts, metal bracket

Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

**4-40 UNC threaded insert**

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
  	09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	6STF09PAT03S20X	
	15						6STF15PAT03S20X	
	25						6STF25PAT03S20X	
	37						6STF37PAT03S20X	
	09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	6STF09PAT04S20X	
	15						6STF15PAT04S20X	
	25						6STF25PAT04S20X	
	37						6STF37PAT04S20X	
	09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	6STF09PAT05S20X	
	15						6STF15PAT05S20X	
	25						6STF25PAT05S20X	
	37						6STF37PAT05S20X	

**Clip for PCB 1.6 mm, 4-40 UNC threaded insert**

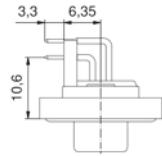
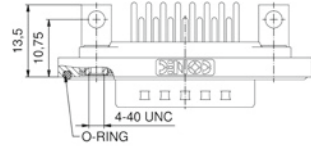
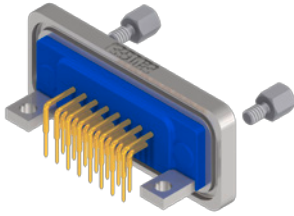
  	09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	370	6STF09PAT03S40X
	15						6STF15PAT03S40X
	25						6STF25PAT03S40X
	37						6STF37PAT03S40X
	09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	830	6STF09PAT04S40X
	15						6STF15PAT04S40X
	25						6STF25PAT04S40X
	37						6STF37PAT04S40X
	09	75 (UI) / 5 (CSA, VDE)	100	E202784	3	1300	6STF09PAT05S40X
	15						6STF15PAT05S40X
	25						6STF25PAT05S40X
	37						6STF37PAT05S40X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

Solder pin angled, .417"/10.6 mm  
 Precision machined contacts, metal bracket

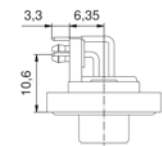
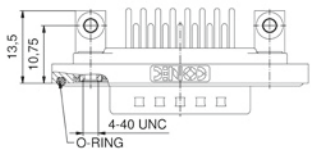
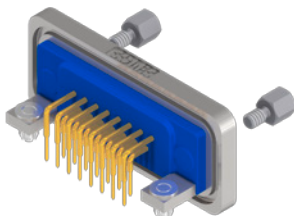
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert



No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAU03R20X
15						6STF15PAU03R20X
25						6STF25PAU03R20X
37						6STF37PAU03R20X
50						6STF50PAU03R20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAU04R20X
15						6STF15PAU04R20X
25						6STF25PAU04R20X
37						6STF37PAU04R20X
50						6STF50PAU04R20X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAU05R20X
15						6STF15PAU05R20X
25						6STF25PAU05R20X
37						6STF37PAU05R20X
50						6STF50PAU05R20X

Clip for PCB 1.6 mm, 4-40 UNC threaded insert



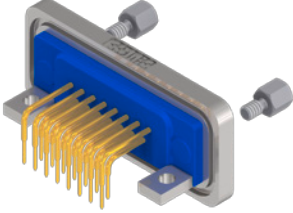
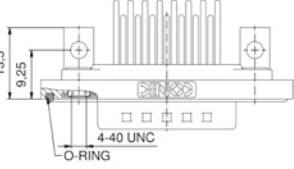
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAU03R40X
15						6STF15PAU03R40X
25						6STF25PAU03R40X
37						6STF37PAU03R40X
50						6STF50PAU03R40X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAU04R40X
15						6STF15PAU04R40X
25						6STF25PAU04R40X
37						6STF37PAU04R40X
50						6STF50PAU04R40X
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAU05R40X
15						6STF15PAU05R40X
25						6STF25PAU05R40X
37						6STF37PAU05R40X
50						6STF50PAU05R40X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector, C-Filter, Standard**

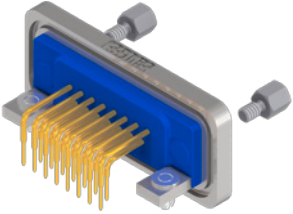
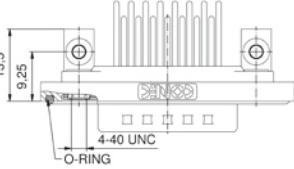
Solder pin angled, .606" / 15.4 mm  
 Precision machined contacts, metal bracket

Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert

 		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAZ03S20X		
15						6STF15PAZ03S20X		
25						6STF25PAZ03S20X		
37						6STF37PAZ03S20X		
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAZ04S20X		
15						6STF15PAZ04S20X		
25						6STF25PAZ04S20X		
37						6STF37PAZ04S20X		
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAZ05S20X		
15						6STF15PAZ05S20X		
25						6STF25PAZ05S20X		
37						6STF37PAZ05S20X		

Clip for PCB 1.6 mm, 4-40 UNC threaded insert

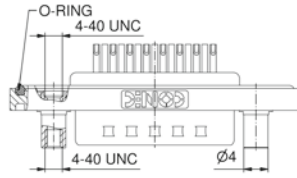
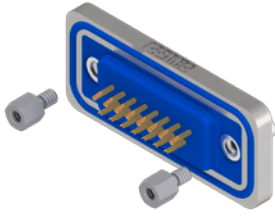
 		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAZ03S40X		
15						6STF15PAZ03S40X		
25						6STF25PAZ03S40X		
37						6STF37PAZ03S40X		
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAZ04S40X		
15						6STF15PAZ04S40X		
25						6STF25PAZ04S40X		
37						6STF37PAZ04S40X		
09	75 (UI) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAZ05S40X		
15						6STF15PAZ05S40X		
25						6STF25PAZ05S40X		
37						6STF37PAZ05S40X		



**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard, front panel mounting

Solder cup  
 Precision machined contacts, AWG 26

4-40 UNC front spacer



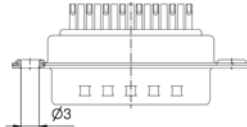
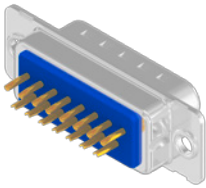
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	6STF09PAM03B50X
15						6STF15PAM03B50X
25						6STF25PAM03B50X
37						6STF37PAM03B50X
50						6STF50PAM03B50X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	6STF09PAM04B50X
15						6STF15PAM04B50X
25						6STF25PAM04B50X
37						6STF37PAM04B50X
50						6STF50PAM04B50X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	6STF09PAM05B50X
15						6STF15PAM05B50X
25						6STF25PAM05B50X
37						6STF37PAM05B50X
50						6STF50PAM05B50X

**IP67 FILTER D-SUB CONNECTORS**  
 Plug connector, C-Filter, Standard

Solder cup p,recision machined contacts  
 Hood Assembly, AWG 26

Through-hole Ø 3 mm



Shell: Brass tin plated  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles

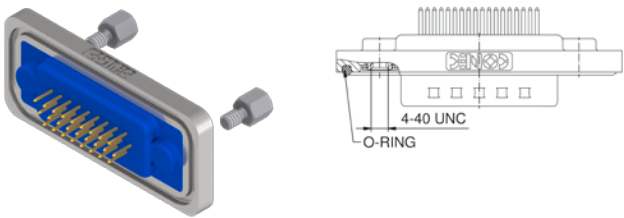
No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	370	4STF09PAM03A10X
15						4STF15PAM03A10X
25						4STF25PAM03A10X
37						4STF37PAM03A10X
50						4STF50PAM03A10X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	830	4STF09PAM04A10X
15						4STF15PAM04A10X
25						4STF25PAM04A10X
37						4STF37PAM04A10X
50						4STF50PAM04A10X
09	75 (UL) / 5 (CSA VDE)	100	E202784	3	1300	4STF09PAM05A10X
15						4STF15PAM05A10X
25						4STF25PAM05A10X
37						4STF37PAM05A10X
50						4STF50PAM05A10X

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector C-Filter High Density**

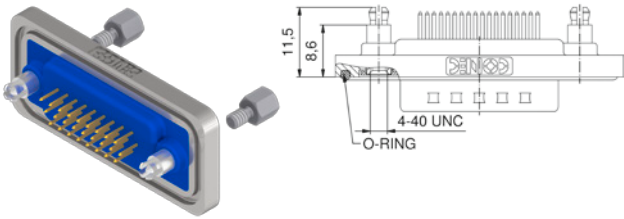
Solder pin straight  
 Precision machined contact

Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

4-40 UNC threaded insert

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
		15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAR03B30X
26	6HDF26PAR03B30X							
44	6HDF44PAR03B30X							
62	6HDF62PAR03B30X							
15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAR04B30X		
26						6HDF26PAR04B30X		
44						6HDF44PAR04B30X		
62						6HDF62PAR04B30X		

4-40 UNC front, threaded rear spacer clip for PCB 1.6 mm

		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
		15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAR03E20X
26	6HDF26PAR03E20X							
44	6HDF44PAR03E20X							
62	6HDF62PAR03E20X							
15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAR04E20X		
26						6HDF26PAR04E20X		
44						6HDF44PAR04E20X		
62						6HDF62PAR04E20X		

**IP67 FILTER D-SUB CONNECTORS**  
**Plug connector C-Filter High Density**

Solder pin angled .362"/9.2 mm  
 Precision machined contacts, metal bracket

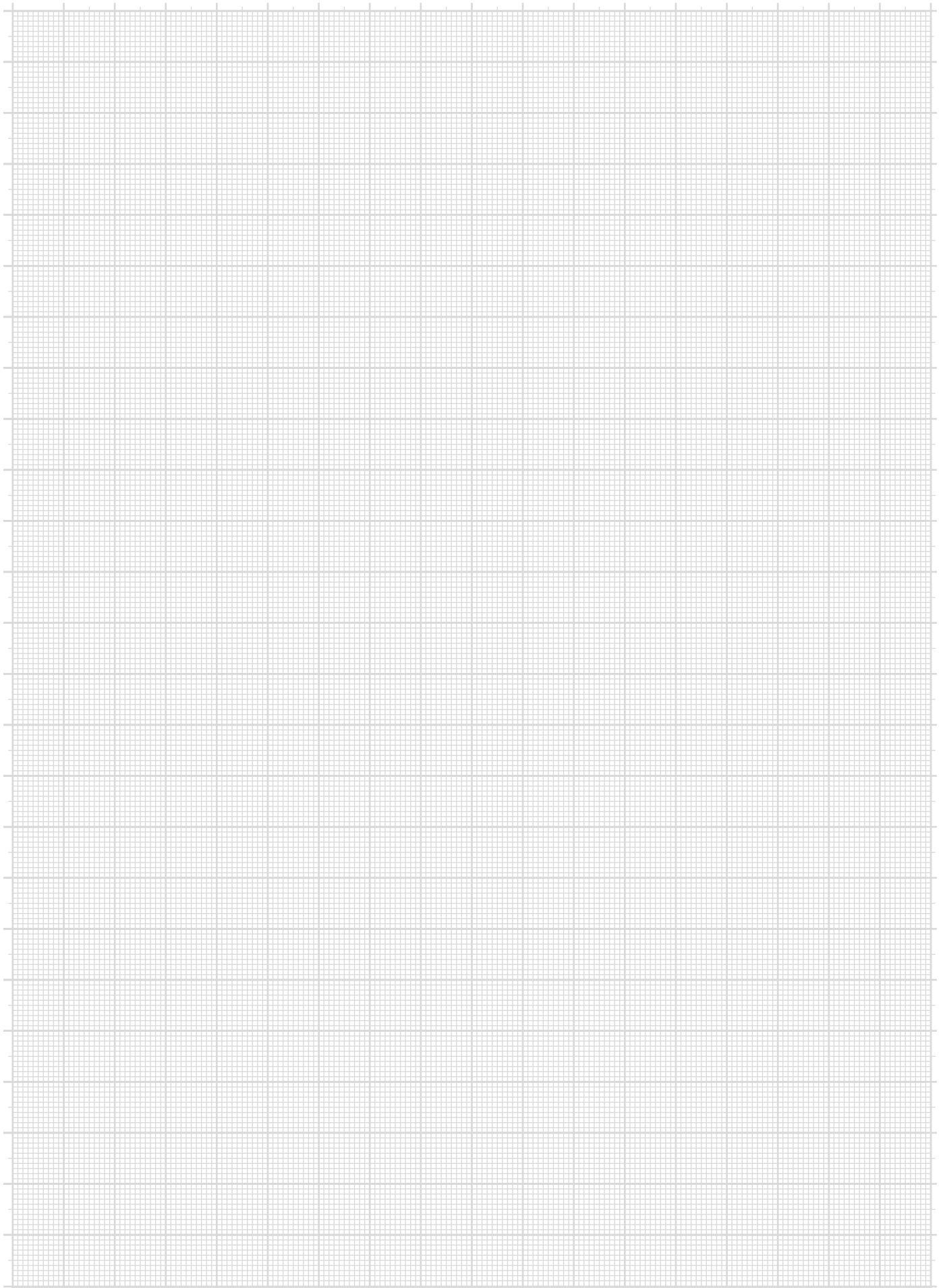
Shell: Brass tin plated  
 Nickel plated die-cast frame  
 Quality class 3 (A) = 50 mating cycles  
 On request:  
 • Quality class 1 (C) = 500 mating cycles  
 • M3 thread

**4-40 UNC threaded insert**

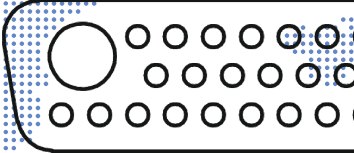
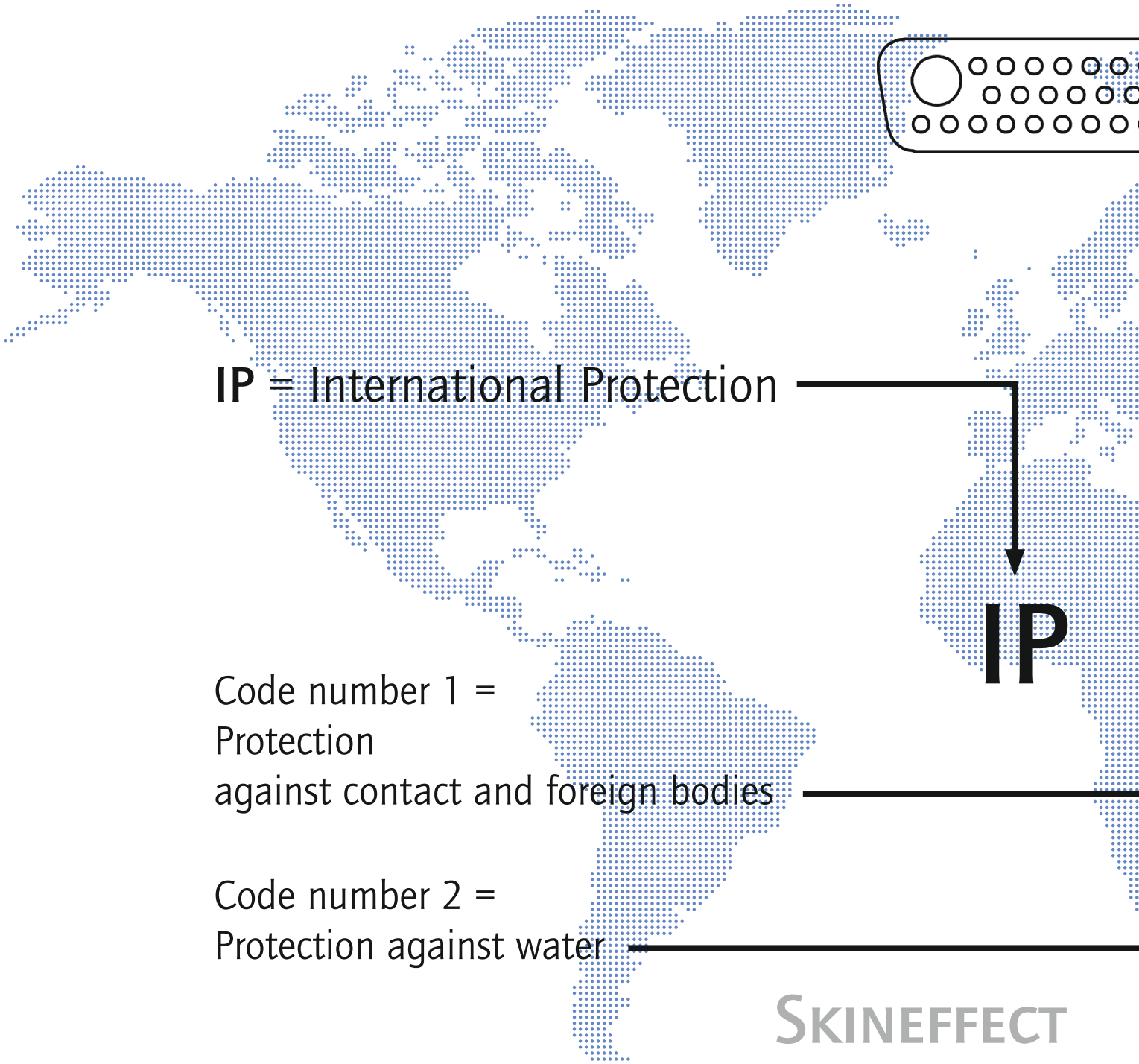
		No. of poles	Current rating [A]	Working voltage [V]	UL-File	Quality class	Capacitance [pF]	Part No.
	15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAY03R20X	
	26						6HDF26PAY03R20X	
	44						6HDF44PAY03R20X	
	62						6HDF62PAY03R20X	
	15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAY04R20X	
	26						6HDF26PAY04R20X	
	44						6HDF44PAY04R20X	
	62						6HDF62PAY04R20X	

**Clip for PCB 1.6 mm, 4-40 UNC threaded insert**

	15	3 (UI) / 2.5 (CSA)	100	E202784	3	370	6HDF15PAY03R40X
	26						6HDF26PAY03R40X
	44						6HDF44PAY03R40X
	62						6HDF62PAY03R40X
	15	3 (UI) / 2.5 (CSA)	100	E202784	3	830	6HDF15PAY04R40X
	26						6HDF26PAY04R40X
	44						6HDF44PAY04R40X
	62						6HDF62PAY04R40X



# TECHNICAL INFORMATION



**IP = International Protection**



**IP**

Code number 1 =  
Protection  
against contact and foreign bodies



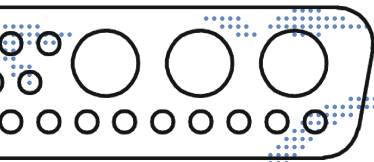
Code number 2 =  
Protection against water



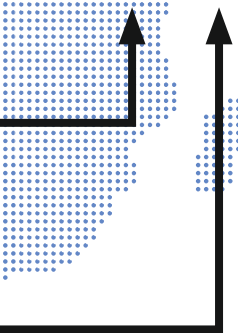
**SKINEFFECT**



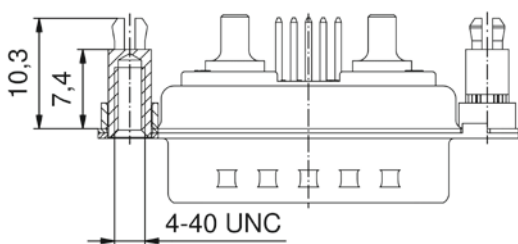




67

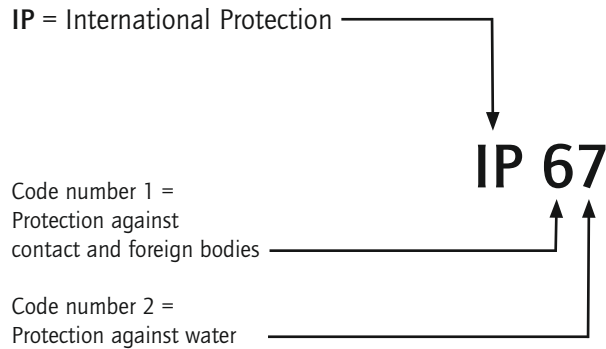


## SOLDER PARAMETER



Protection classes

Norm IEC 60529



For safety reasons, connectors have to be protected against external influences like dust, foreign objects, direct contact, moisture and water. For industrial connectors, this protection is provided by their housings with their latching devices and sealed cable entries. The protection classes are also called IP Codes. The abbreviation IP stands for "ingress protection". Standard IEC 60529 specifies and divides the degree of protection into several classes.

The protection classes refer to protection against contact and ingress of solid foreign objects and dust (indicated by the first code digit of the IP Code) as well as against damaging ingress of water (indicated by the second code digit of the IP Code)

PROTECTION CLASS OVERVIEW

First code digit	Protection against ingress of foreign objects Protection against contact	Second code digit	Protection against water	Examples
0	Not protected	0	Not protected	
1	Protection against ingress of solid foreign objects with diameters > than 50 mm Protected against access with the back of the hand	1	Protection against vertically dripping water	
2	Protection against ingress of solid foreign objects with diameters > than 12.5 mm Protected against access with a finger	2	Protection against dripping water with 15° inclination	
3	Protection against ingress of solid foreign objects with diameters > than 2.5 mm Protected against access with a tool	3	Protection against spray water inclined up to 60°	
4	Protection against ingress of solid foreign objects with diameters > than 1 mm Protected against access with a wire	4	Protection against splashing water	
5	Protected against dust in harmful quantities Complete protection against contact	5	Protection against jet water	
6	Dust-proof Complete protection against contact	6	Protection against powerful jets of water	
		7	Protection against temporary immersion (max. water depth 1 m)	
		8	Protection against constant immersion beyond 1 m An additionally indicated number stands for the maximum immersion depth in meters.	
		9K	Protection against very strong jets of water, e.g. from high-pressure steam jet cleaners for vehicles.	



## TECHNICAL INFORMATIONS

### Electrotechnical information for coaxial and high voltage contacts

#### Skin Effect

Alternating currents do not uniformly occupy the entire cross section of the conductor, rather inductance effect in the conductor deflects the current towards the surface of the conductor, whereby this deflection increases with the frequency. The resistive attenuation of a transmission line increases with the frequency as a result of this skin effect. The skin depth (equivalent thickness of the layer in which current flows) can be determined using

$$\delta = \frac{1}{\sqrt{f \pi \sigma \mu_0 \mu_r}}$$

f = frequency

$\sigma$  = conductivity of the conductor material

$\sigma_{Ag} = 62 \times 10^6 \text{ S/m}$

$\sigma_{Cu} = 58 \times 10^6 \text{ S/m}$

$\mu_0 = 1,256 \cdot 10^{-6} \text{ Vs / Am}$

$\mu_r$  ... relative permeability constant for the employed material

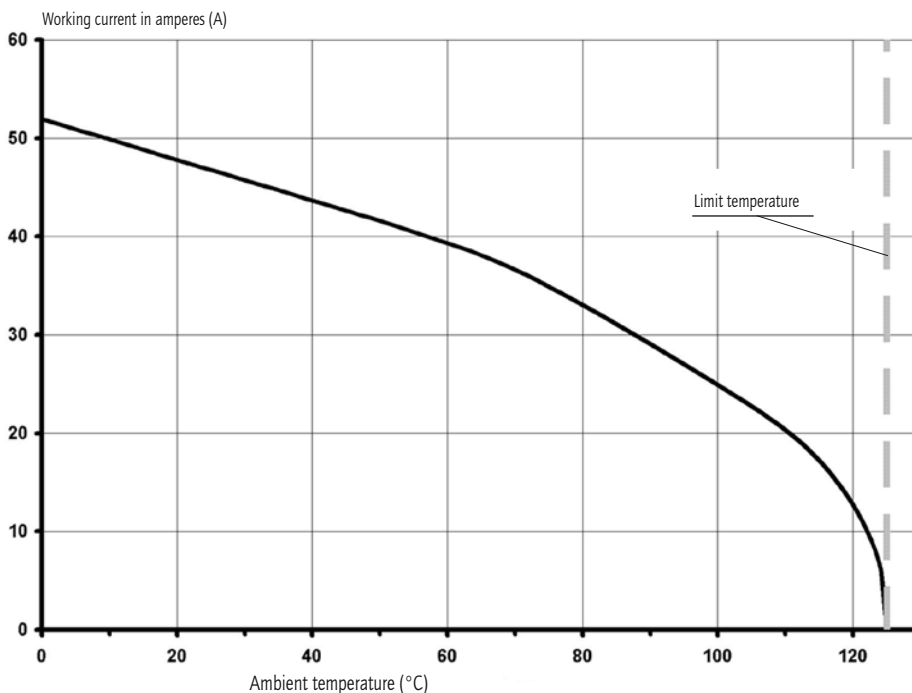
#### VSWR-Value

The ratio between the value of the largest and the smallest voltages on a loss-free line is known as the ripple or voltage standing wave ratio s (where  $1 \leq s < \infty$ ). The reciprocal value of the VSWR is known as the inverse voltage standing wave ratio m (where  $0 < m \leq 1$ ). (VSWR = Voltage standing wave ratio)

The value of s is linked with the  $\rightarrow$  reflection coefficient r on s transmission line according to the equation

$$s = \frac{(1 + |r|)}{(1 - |r|)}$$

#### DeRating Curve

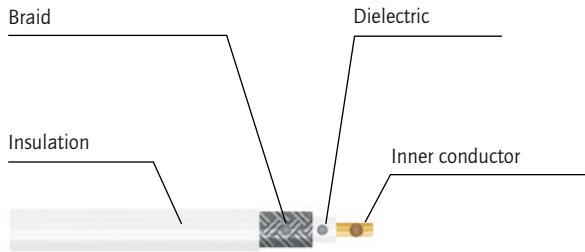


All connectors in the Water Resistant Combination D-Subminiature series are fully loaded with contacts. They are equipped with either signal, high voltage, high power or coaxial contacts according to requirements. Our production standard requires that all connectors are fully loaded.

Connectors 3W3, 5W5 and 8W8 female: Socket contacts are fingerprobe safe according to UL1950 and CSA 22.2.950 specifications.

## TECHNICAL INFORMATION

### Typical Assembly for coaxial crimp contacts (Detailed information upon request)



Strip the wire  
Using dimensions shown  
on the individual product  
drawings



Slide sleeve over coax cable



Crimp the inner contact  
on the inner conductor



Snap the inner contact  
into the outer contact



Slide braid over outer  
contact



Crimp the sleeve on to  
outer contact

## TECHNICAL INFORMATION

### Solder profile

Recommended wave - solder parameters for CONEC connectors

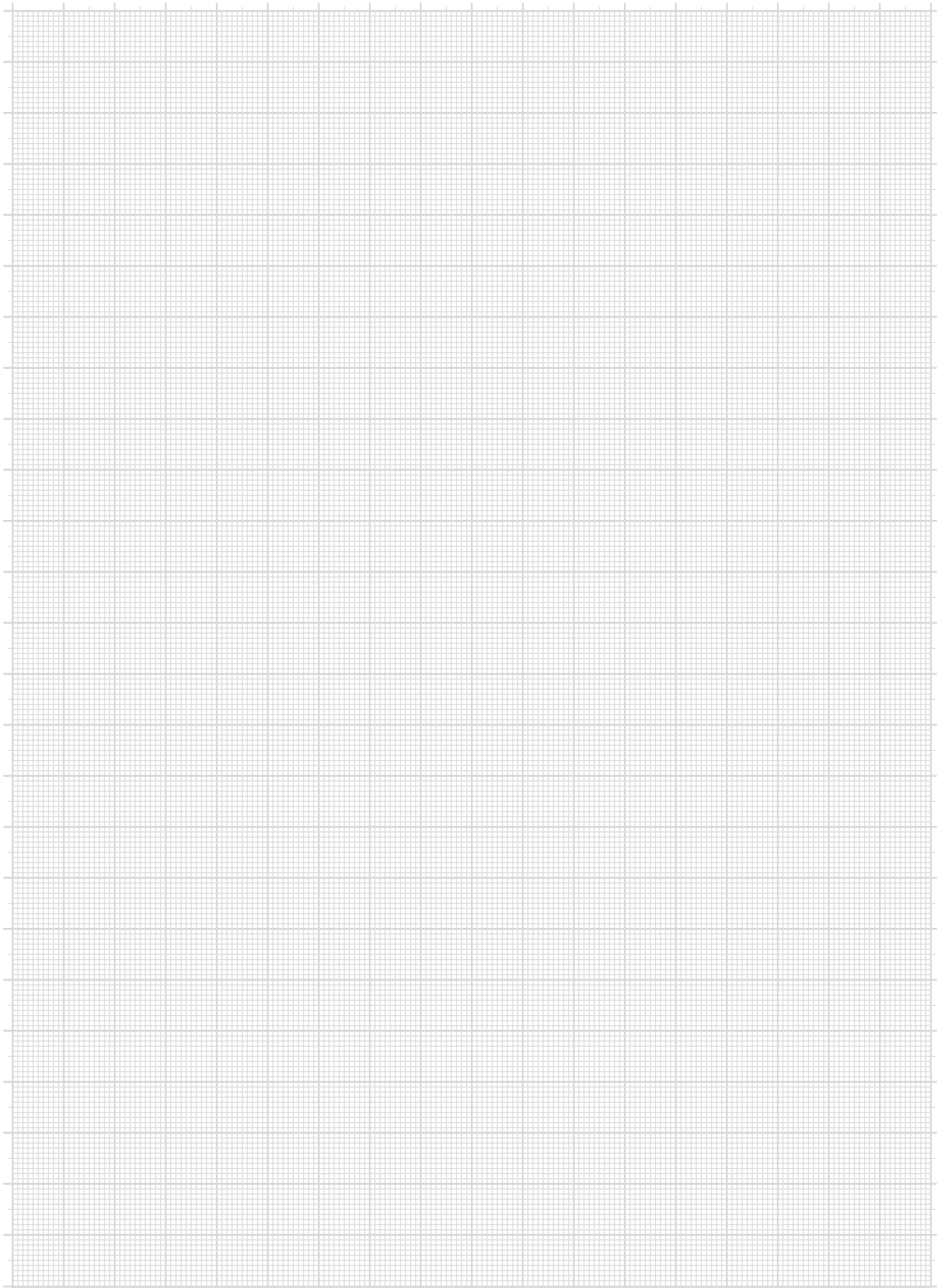
Connector Type	Preheating		Solder termination dipping parameters	
	max. temperature	max. duration	max. solder bath temperature	max. terminal immersion time
D-SUB Standard	100 °C	120 s	260 °C	5 s
D-SUB High Density	100 °C	120 s	260 °C	5 s
Combination D-SUB	100 °C	120 s	260 °C	5 s
Filter D-SUB	100 °C	30 s	260 °C	5 s
Filter Combination D-SUB	120 °C	120 s	260 °C	5 s
IP67 D-SUB (Standard + HD)	120 °C	120 s	240 °C	5 s
IP67 D-SUB Solid Body (Standard + HD)	150 °C	180 s	265 °C	8 s
IP67 D-SUB CONEC SlimCon (Standard + HD)	150 °C	180 s	265 °C	8 s
IP67 Filter D-SUB (Standard + HD)	100 °C	30 s	260 °C	5 s
IP67 Filter D-SUB CONEC SlimCon	150 °C	180 s	265 °C	8 s
IP67 D-SUB Combination	120 °C	120 s	240 °C	5 s
IP67 D-SUB Combination Solid Body	150 °C	180 s	265 °C	8 s
IP67 D-SUB Combination CONEC SlimCon	150 °C	180 s	265 °C	8 s

Technical specifications are subject to change without notice

# TECHNICAL INFORMATION

## Conversion table for units $\mu\text{m}/\text{mm}/\text{inch}$

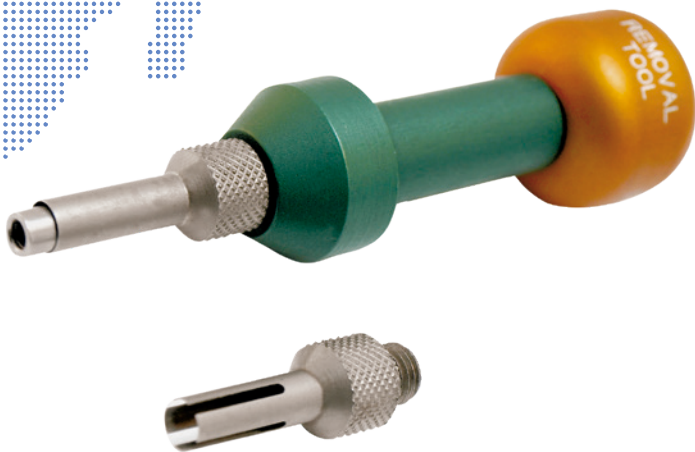
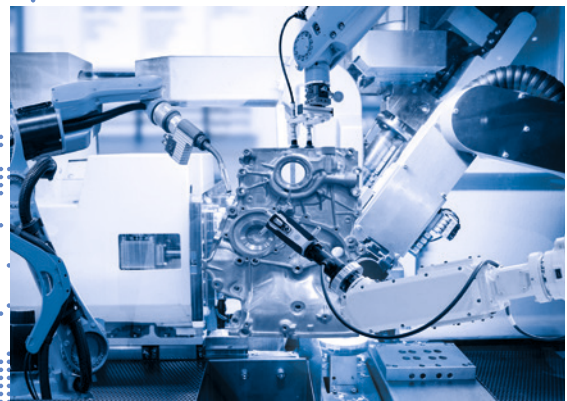
$\mu\text{m}$ 1/1000 mm	$\mu\text{inch}$ 1/1000 inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
0,10	4	3,30	.130	10,16	.400	19,50	.768	30,90	1.217	49,50	1.949
0,20	8	3,40	.134	10,26	.402	19,70	.776	31,00	1.220	49,90	1.965
0,25	10	3,50	.138	10,36	.406	19,80	.780	31,20	1.228	50,10	1.972
0,30	12	3,60	.142	10,56	.413	19,90	.783	31,50	1.240	50,30	1.980
0,50	20	3,70	.146	10,66	.417	20,00	.787	31,70	1.248	50,50	1.988
0,70	28	3,80	.150	10,76	.421	20,10	.791	32,00	1.260	50,70	1.996
0,75	30	3,81	.150	11,00	.433	20,30	.799	32,20	1.268	50,80	2.000
0,80	32	3,90	.154	11,20	.441	20,32	.800	32,30	1.272	51,40	2.024
1,00	39	4,00	.158	11,40	.449	20,50	.807	32,50	1.280	51,50	2.028
1,27	50	4,10	.161	11,50	.453	21,00	.827	32,80	1.291	52,00	2.047
2,00	79	4,20	.165	11,60	.457	21,10	.831	33,00	1.299	52,30	2.059
2,50	98	4,30	.169	11,90	.469	21,70	.854	33,10	1.303	52,80	2.079
3,00	118	4,50	.177	12,00	.472	22,00	.866	33,30	1.311	53,00	2.087
4,00	157	4,70	.185	12,20	.480	22,10	.870	33,80	1.331	53,20	2.095
5,00	197	4,90	.193	12,30	.484	22,20	.874	34,00	1.339	53,80	2.118
		5,00	.197	12,40	.488	22,30	.878	34,20	1.346	54,00	2.126
<b>mm</b>	<b>inch</b>	5,08	.200	12,50	.492	22,40	.882	34,40	1.354	54,20	2.134
0,10	.004	5,10	.201	12,70	.500	22,50	.886	35,00	1.378	54,90	2.161
0,20	.008	5,20	.205	12,90	.508	22,60	.890	35,40	1.394	55,00	2.165
0,25	.012	5,30	.209	13,00	.512	22,80	.898	35,50	1.398	55,40	2.181
0,35	.014	5,40	.213	13,10	.516	22,86	.900	35,56	1.400	55,70	2.193
0,40	.016	5,50	.217	13,20	.520	22,90	.902	35,60	1.402	56,60	2.228
0,45	.018	5,60	.220	13,50	.532	23,00	.906	36,00	1.417	57,40	2.260
0,50	.020	5,70	.224	13,60	.535	23,10	.909	36,50	1.437	57,80	2.276
0,55	.022	5,80	.228	13,70	.539	23,30	.917	36,60	1.441	57,90	2.280
0,60	.024	6,00	.236	13,90	.547	23,50	.925	36,70	1.445	58,42	2.300
0,64	.025	6,10	.240	14,00	.551	24,00	.945	37,00	1.457	59,00	2.323
0,65	.026	6,40	.252	14,30	.563	24,30	.957	37,30	1.469	59,20	2.331
0,70	.028	6,50	.256	14,40	.567	24,60	.969	37,50	1.476	59,80	2.354
0,75	.030	6,60	.260	14,50	.571	24,90	.980	37,60	1.480	59,90	2.358
0,80	.032	6,70	.264	14,70	.579	25,00	.984	37,70	1.484	60,00	2.362
0,85	.034	6,80	.268	14,80	.583	25,10	.988	37,90	1.492	60,96	2.400
0,90	.035	6,90	.272	14,90	.587	25,40	1.000	38,00	1.496	61,10	2.406
1,00	.039	7,00	.276	14,98	.590	25,60	1.008	38,10	1.500	62,00	2.441
1,20	.047	7,10	.280	15,00	.591	25,90	1.020	39,00	1.535	63,00	2.480
1,25	.049	7,20	.283	15,20	.598	26,00	1.024	39,20	1.543	63,50	2.500
1,27	.050	7,40	.291	15,24	.600	26,30	1.035	39,30	1.547	64,00	2.520
1,30	.051	7,50	.295	15,40	.606	26,60	1.047	39,90	1.571	65,00	2.560
1,35	.053	7,60	.299	15,50	.610	26,70	1.051	40,00	1.575	67,00	2.638
1,40	.055	7,62	.300	15,60	.614	27,00	1.063	40,30	1.587	68,00	2.677
1,45	.057	7,70	.303	15,90	.626	27,20	1.071	40,40	1.591	69,00	2.717
1,50	.059	7,80	.307	16,00	.630	27,40	1.079	40,60	1.598	70,00	2.756
1,60	.063	7,98	.314	16,20	.638	27,50	1.093	41,00	1.614	71,00	2.795
1,70	.067	8,00	.315	16,50	.650	27,90	1.098	41,60	1.638	74,00	2.913
1,80	.071	8,18	.318	16,60	.654	27,94	1.100	42,70	1.681	75,00	2.953
1,85	.073	8,20	.323	16,80	.661	28,00	1.102	43,18	1.700	76,20	3.000
1,90	.075	8,30	.327	17,00	.669	28,20	1.110	44,20	1.740	77,00	3.032
2,00	.079	8,40	.331	17,20	.677	28,50	1.122	44,80	1.764	78,74	3.100
2,10	.083	8,50	.335	17,30	.681	28,70	1.130	45,80	1.803	80,00	3.150
2,20	.087	8,60	.339	17,50	.689	29,00	1.142	46,30	1.823	81,28	3.200
2,30	.091	8,90	.350	17,60	.693	29,20	1.150	46,70	1.839	84,00	3.307
2,40	.095	9,00	.354	17,70	.697	29,40	1.158	47,00	1.850	85,00	3.346
2,50	.098	9,10	.358	17,78	.700	29,50	1.161	47,20	1.858	86,36	3.400
2,54	.100	9,20	.362	17,80	.701	29,70	1.169	47,30	1.862	88,90	3.500
2,60	.102	9,30	.366	17,90	.705	29,90	1.177	47,50	1.870	90,00	3.543
2,70	.106	9,40	.370	18,00	.709	30,00	1.181	47,80	1.882	91,44	3.600
2,80	.110	9,50	.374	18,10	.713	30,20	1.189	48,00	1.890	94,00	3.701
2,84	.112	9,60	.378	18,30	.721	30,40	1.197	48,10	1.894	95,00	3.740
2,90	.114	9,70	.382	18,60	.732	30,48	1.200	48,26	1.900	100,00	3.937
3,00	.118	9,90	.390	19,00	.748	30,50	1.201	48,80	1.921	110,00	4.331
3,10	.122	10,00	.395	19,20	.756	30,80	1.213	49,10	1.933	120,00	4.724



# INSTALLATION AND ASSEMBLY TOOLS





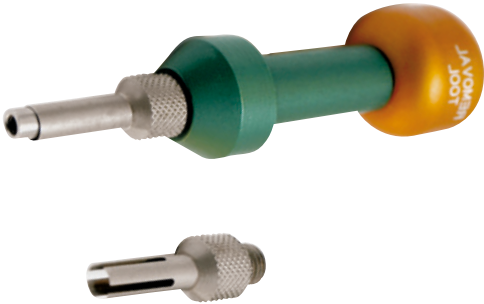






## INSTALLATION AND ASSEMBLY TOOLS

### Installing/Removal tools

for D-SUB connectors with crimp contacts	Description	Part. No.
	Insertion and extraction tool	360X12009X
for D-SUB High Density connectors with crimp contacts		
	Insertion tool	360X10339X
	removal tool	360X10349X
for D-SUB Combination Connectors with coaxial, high power and high voltage contacts		
	Extraction tool	360X10219X

## INSTALLATION AND ASSEMBLY TOOLS

### Crimp tools

for D-SUB standard connectors with stamped contacts

Description

Part. No.



Crimp tool

360X10079X

for D-SUB standard connectors with stamped contacts



Spool crimp tool  
for stamped contacts on reel

360X10069X


## INSTALLATION AND ASSEMBLY TOOLS

### Crimp tools and inserts

for D-SUB, HD-SUB connectors with crimp contacts and D-SUB combination connectors with coaxial contacts (inner conductor)

Description

Part. No.

	<p>Hand crimp tool</p>	<p>360X10329X</p>
	<p>Inserts (Part No. see following charts)</p>	

#### Inserts for use with hand crimp tool 360X10329X D-SUB Standard and High Density contacts



Part No. plug contacts	Part No. socket contacts	Part No. Crimp insert	AWG (Selector Setting)	AWG (Selector Setting)	AWG (Selector Setting)	AWG (Selector Setting)
161A18299X	162A18709X	360X20069X	20 (7)	22 (6)	24 (5)	
161A18309X	162A18719X	360X20069X	24 (7)	26 (6)	28 (5)	
161A18009X	162A18419X	360X10629X	22 (4)	24 (3)	26 (2)	28 (1)
	16-000693 (closed entry)	360X10629X	22 (4)	24 (3)	26 (2)	28 (1)
131C15019X	132C15019X	360X20039X	20 (7)	22 (6)	24 (5)	
131C15029X	132C15029X	360X20039X	24 (7)	26 (6)	28 (5)	

#### Inserts for use with hand crimp tool 360X0329X D-SUB Combination coaxial contacts (inner conductor)

Part No. plug contacts	Part No. socket contacts	Part No. Crimp insert	Selector setting			
131J21019X	132J21019X	360X11049X	depending on wire use selector setting			
131J21029X	132J21029X	360X11049X				
131J21039X	132J21039X	360X11049X	AWG			Selector setting
131J23019X	132J23019X	360X11059X	24	→		5
131J31019X	132J31019X	360X11049X	26	→		5
131J31029X	132J31029X	360X11049X	28	→		4
131J33019X	132J33019X	360X11059X	30	→		3

## INSTALLATION AND ASSEMBLY TOOLS

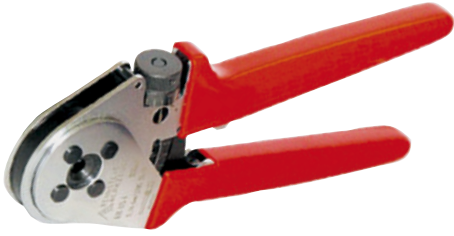
### Crimp tools and inserts

for D-SUB standard connectors with stamped contacts	Description	Part. No.
	Hand crimp tool	360X10409X
	Insert for above hand crimp tool	360X20029X

#### Selector setting for High Power contacts


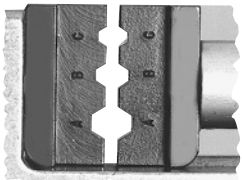
Contact Type	Part. no. plug contacts	Part. no. socket contacts	Crimp insert	AWG (Selector Setting)	AWG (Selector Setting)	AWG (Selector Setting)
D-Sub Combination High power contacts	131C11019X	132C11019X	360X20029X	16 (3)	18 (2)	20 (2)
	131C11029X	132C11029X	360X20029X	12 (5)	14 (4)	
	131C11039X	132C11039X	360X20029X	10 (7)	12 (6)	
	131C11049X	132C11049X	360X20029X	8 (7)	10 (6)	

#### for D-SUB Combination connectors with angled high power contacts

	Hand crimp tool	360X12269X
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## INSTALLATION AND ASSEMBLY TOOLS

### Crimp tools and inserts

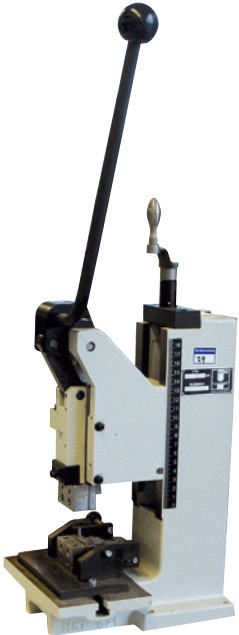

for D-SUB combination connectors with coax contacts (outer conductor)	Description	Part. No.
	Hand crimp tool	360X10519X
	Inserts (Part No. see following chart)	

#### Inserts for use with hand crimp tool 360 X0329 X/D-SUB Combination coac contacts (outer conductor)

Part No. plug contacts	Part No. socket contacts	Part No. Crimp insert	Inser cavity
131J20019X	132J20019X	360X11019X	C
131J20029X	132J20029X	360X11019X	B
131J20039X	132J20039X	360X11019X	A
131J20049X	132J20049X	360X11029X	A
131J20059X	132J20059X	360X11039X	B
131J21019X	132J21019X	360X11019X	B
131J21029X	132J21029X	360X11039X	B
131J21039X	132J21039X	360X11029X	A
131J22019X	132J22019X	360X11019X	B
131J22029X	132J22029X	360X11019X	C
131J22039X	132J22039X	360X11039X	B
131J23019X	132J23019X	360X11019X	B
131J30019X	132J30019X	360X11019X	B
131J30029X	132J30029X	360X11019X	B
131J31019X	132J31019X	360X11019X	B
131J31029X	132J31029X	360X11019X	A
131J33019X	132J33019X	360X11019X	B

## INSTALLATION AND ASSEMBLY TOOLS

### Manually operated lever press + press in tool sets

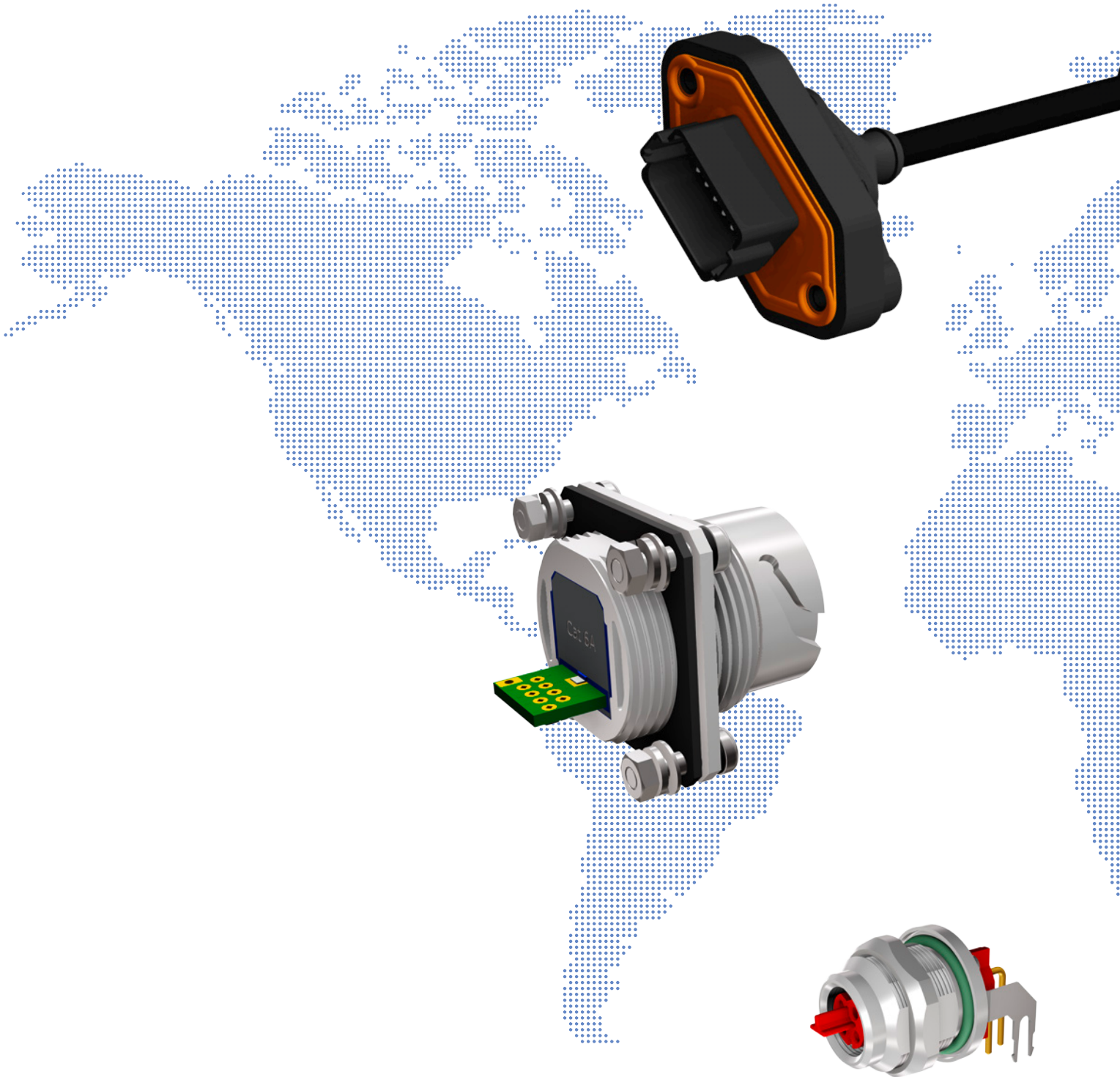
for D-SUB combination connectors with coax contacts (outer conductor)	Description	Part. No.
	Manually operated lever press	360X12369X
	Press in tool sets (Part No. see following chart)	

#### Press in tool sets for D-SUB, HD-SUB and D-SUB Combination Connectors

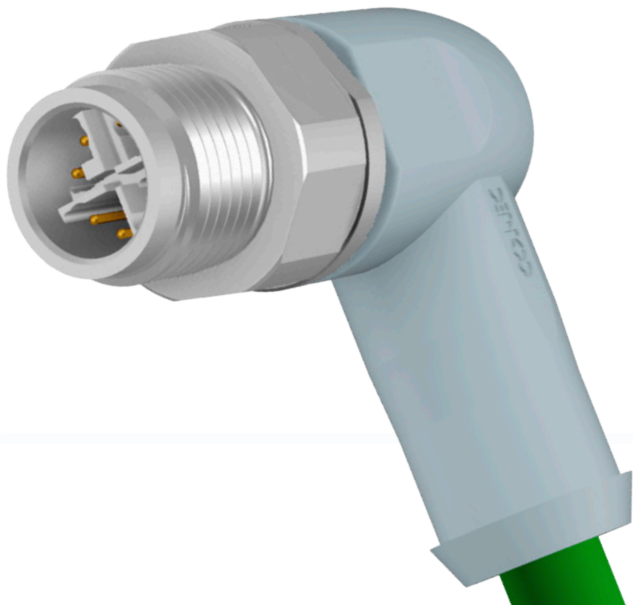
Socket Connector	Type	Part. No.
Combination D-SUB Connectors	2W2C	360X00159A
Combination D-SUB Connectors	3W3	360X00169A
Combination D-SUB Connectors	3W3C	360X00169A
Combination D-SUB Connectors	5W5	360X00179A
Combination D-SUB Connectors	8W8	360X00189A
Plug Connector	9-pos./15-pos. HD	360X15019X
Plug Connector	15-pos./26-pos. HD	360X15029X
Plug Connector	25-pos./44-pos. HD	360X15039X
Plug Connector	37-pos./62-pos. HD	360X15049X
Plug Connector	50-pos./78-pos. HD	360X15059X
Socket Connector	9-pos./15-pos. HD	360X15069X
Socket Connector	15-pos./26-pos. HD	360X15079X
Socket Connector	25-pos./44-pos. HD	360X15089X
Socket Connector	37-pos./62-pos. HD	360X15099X
Socket Connector	50-pos./78-pos. HD	360X15109X

SECTION 11

# ADDITIONAL PRODUCT CATEGORIES







## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 Power Bayonet



#### Details

- No. of poles: 2, 2+PE
- Receptacle male and female
- Cable connector male and female
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Secure and easy locking by bayonet lock
- Cable to cable connection available
- High current carrying capability

### IP67 Mini USB, USB 2.0, USB 3.0 connectors



#### Details

- Type: USB 3.0 Type A
- Type: USB 2.0 Type A, Mini USB Type A
- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet, M28
- Termination: soldering, PCB
- Front- and back panel mounting
- Adapters
- Degree of protection: IP67
- Degree of protection: IP20 (patch cord)

#### Benefits

- Use in harsh environments
- Secure and easy locking by bayonet lock
- Light-weight versions ideal for portable devices

## ADDITIONAL CONEC PRODUCT CATEGORIES

### IP67 RJ45 Industrial Ethernet connectors



#### Details

- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet, M28
- Termination: soldering, IDC, screw
- Front- and back panel mounting
- UTP Cat 5e, STP Cat 5e, S/STP Cat 6A
- Degree of protection: IP67
- Degree of protection: IP20 (patch cord)

#### Benefits

- Use in harsh environments
- Easy and secure locking by bayonet lock
- Front- and back panel mounting
- Light-weight versions
- Colored interface encoding available
- Cat. 6 A variants up to 10 GBit /s

### IP67 Fiber Optic LC Duplex



#### Details

- Housing: plastic, plastic metallized, zinc die-cast
- Locking: bayonet
- Single Mode, Multi Mode, APC Single Mode
- Front- and back panel mounting
- Degree of protection: IP67

#### Benefits

- Use in harsh environments
- Secure and easy locking by bayonet lock
- Extended temperature range
- Interference-free safe data transmission
- Cost efficiency by integrated IP67 protection



## ADDITIONAL CONEC PRODUCT CATEGORIES

### CONEC Hybrid connectors



#### Details

- Size: B12, B17, B23, B40
- Coding: 1, 2, 3, 4, 5, 6
- Number of poles power: 2, 2+PE, 3+PE, 4+PE, 3+PE+2
- Number of poles data: 4 (transmission according IEC11801 Cat 5)
- Configuration: Connector axial overmoulded, Connector axial field attachable, sockets axial, sockets angled rotatable (B23)
- Bayonet locking
- Degree of protection: IP67

#### Benefits

- Space-saving by transmitting data and power with one connector
- Quick and secure connection by bayonet locking
- Compact and robust design
- Adjustable direction of outlet (B23 receptacle angled)

### Circular connectors overmoulded (signal transmission)



#### Details

- Size: M8x1, M12x1, 7/8", Rund24
- Coding: A, B, C
- Number of poles: 3, 4, 5, 6, 8, 12, 2+PE, 3+PE, 4+PE
- Configuration: axial or angled, shielded or unshielded
- Optional with LED
- Termination: screw-, snap-, screw-/snap-termination
- Degree of protection: IP67

#### Benefits

- Robust design with minimum space requirements
- Mating can be controlled with torque wrench
- Vibration proof screw lock
- Application-related cable qualities

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Circular connectors field attachable (signal transmission)



#### Details

- Size: M8x1, M12x1, 7/8", Rund24
- Coding: A
- Number of poles: 3, 4, 5, 8, 2+PE, 3+PE, 4+PE, 6+PE
- Configuration: axial or angled, shielded or unshielded
- Termination: solder-, clamp-, screw-, crimp termination
- Degree of protection: IP67

#### Benefits

- Mating can be controlled with torque wrench
- Easy field attachable without special tools
- M12x1 cable cross section 1.5 mm<sup>2</sup> (Crimp max. 1.0 mm<sup>2</sup>)
- Vibration proof screw lock

### Sockets (signal transmission)



#### Details

- Size: M8x1, M12x1, 7/8"
- Coding: A, B
- Number of poles: 3, 4, 5, 6, 8, 12, 2+PE, 4+PE
- Male socket, female socket
- Configuration: axial or angled
- Field attachable crimp version
- Assembly: Protection cap
- Front and back panel mounting
- Degree of protection: IP67

#### Benefits

- Colored contact insulators to avoid wrong plugging
- High number of poles with minimum space requirements
- Direct circuit board mounting
- Protection of unused interfaces

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Sockets SMT/THR (signal transmission)



#### Details

- Size: M8x1 SMT/THR, M12x1 SMT
- Coding: A, B
- Number of poles: 3, 4, 5, 8
- Male socket, female socket
- Configuration: axial, shielded or unshielded
- Front and back panel mounting
- Degree of protection: IP67

#### Benefits

- Automated assembly (SMT)
- High number of poles with minimum space requirements
- Low forces on the board
- Low contact resistance on the shielding
- Large tolerance compensation between board and housing

### Panel plugs



#### Details

- Size: M8x1, M12x1
- Coding: A
- Number of poles: 3, 4, 5, 8
- With LED preparation
- Configuration: axial
- Housing configuration: Plastic, metal, metal/plastic transparent
- Termination: Solder-, print termination
- Degree of protection: IP67

#### Benefits

- Easy installation in housing by pushing in
- Low installation height
- Various connection possibilities

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Power connectors



#### Details

- Size: M12x1, 7/8", Rund24
- Coding: L, S, T
- Number of poles: 3, 4, 2+PE, 3+PE, 4+PE, 4+FE, 6+PE
- Configuration: axial or angled
- Degree of protection: IP67

#### Benefits

- Transmission of high currents
- Mating can be controlled with torque wrench
- Defined tightening torque
- Polarity reversal prevented with coded insulators
- Robust design with minimum space requirements

### High Temperature/Food & Beverage connectors



#### Details

- Size: M8x1, M12x1
- Coding: A
- Number of poles: 3, 4, 5
- Female connector, male connector
- Optional with LED
- Temperature-resistant up to 125 °C (HT)
- Degree of protection: IP65 (HT), IP67/IP69K (F&B)

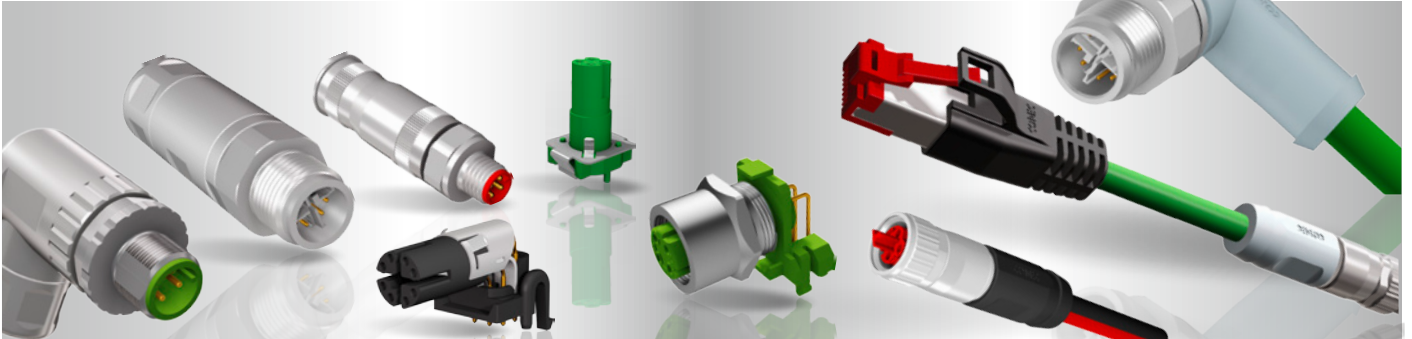
#### Benefits

- Resistance to commercial aggressive cleaning agents
- Robust design with minimum space requirements
- Mating can be controlled with torque wrench
- Vibration proof screw lock
- Use in constantly high ambient temperatures



## ADDITIONAL CONEC PRODUCT CATEGORIES

### Connectors for BUS-Systems



#### Details

- Size: M8x1, M12x1, 7/8", RJ45
- Coding: B, D, P, X
- Number of poles: 4, 8
- Profibus DP
- DeviceNet
- Industrial Ethernet 100 MHz
- EtherCAT P
- 10 Gigabit Ethernet
- Configuration: axial or angled

#### Benefits

- Robust design with minimum space requirements
- Vibration proof screw lock
- SMT versions for automatic placement
- High data transmission up to 10 Gbit/s (X-cod.)
- Flexible cabling in the field by field attachable variants

### Junction systems



#### Details

- Size: M8x1, M12x1
- Number of poles: 3, 4, 5, 8, 4+PE
- 1:1 wiring
- Signal distribution
- Assembly: retaining clip, protection caps
- Degree of protection: IP67

#### Benefits

- Reduction of installation costs
- Space saving design
- Robust design with minimum space requirements
- Signals and power are transmitted by standardized plug systems
- Back-to-back assembly with retaining clip

## ADDITIONAL CONEC PRODUCT CATEGORIES

### DT, Superseal and ISOBUS series



#### Details

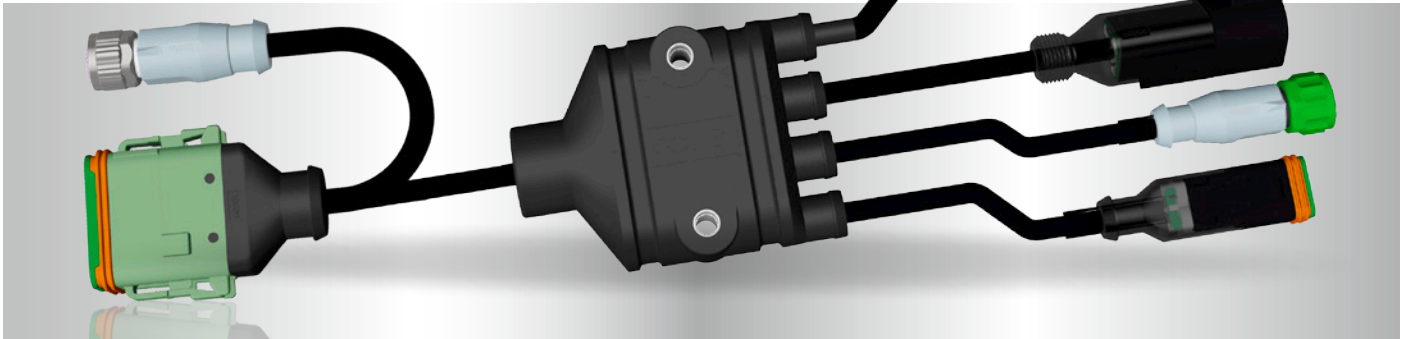
- No. of poles: 2-, 3-, 4-, 6-, 8-, 12-pos. (DT-Series)  
2-, 3-, 4-, 5-, 6-pos. (Superseal), 9-pos. (ISOBUS)
- PUR Cable 0.75 mm<sup>2</sup>/AWG 18
- Optional with M12-thread (DT-Series)
- Optional with LED and protection circuit (DT-Series: 2- und 3-pos.)
- Available with single wire (2-pos. DT-Series and Superseal)
- Protection cap (DT- and Superseal-Series)
- Available with double outlet (DT 2-, 4-, 6-, 8-pos.)
- Gender: Female, male

#### Benefits

- Compact design
- With/without LED and protection circuit
- Status indication via LED, visible from all sides (DT-Series)
- Attachment/mounting of cable protection hose (DT-/Superseal-Series)
- The overmoulding provides an overall IP67 protection from the housing into the cable

## ADDITIONAL CONEC PRODUCT CATEGORIES

### Junction system Type S, M, L



#### Details

##### Type S

- 66 x 30 x 15 mm
- Cable inlets: 1, 2
- Cable outlets: 1, 2
- Max. Cable diameter inlets: 8 mm
- Max. Cable diameter outlets: 8 mm

##### Type M

- 66 x 40 x 15 mm
- Cable inlets: 1, 2, 3
- Cable outlets: 1, 2, 3
- Max. Cable diameter inlets: 11 mm
- Max. Cable diameter outlets: 8 mm

##### Type L

- 76 x 55 x 22 mm
- Cable inlets: 1, 3, 4
- Cable outlets: 3, 4
- Max. Cable diameter inlets: 17 mm
- Max. Cable diameter outlets: 13 mm (3 exits), 8 mm (4 exits)

#### Benefits

- Reduction of installation costs
- Fully protected cable harness
- Space saving design
- Robust design with minimum space requirements
- Different mounting options
- Degree of protection: IP67

## ADDITIONAL CONEC PRODUCT CATEGORIES

### PCB connectors



### Overview

- DIN EN 60603-2
- DIN 41617
- AdvancedTCA
- Flat cable connector
- CompactPCI
- PC104/PC104Plus

### Customized products



### Many things are possible

Are you looking for application-specific solutions?

Please contact us – our expert team will support you from the product concept up to optimised serial production.

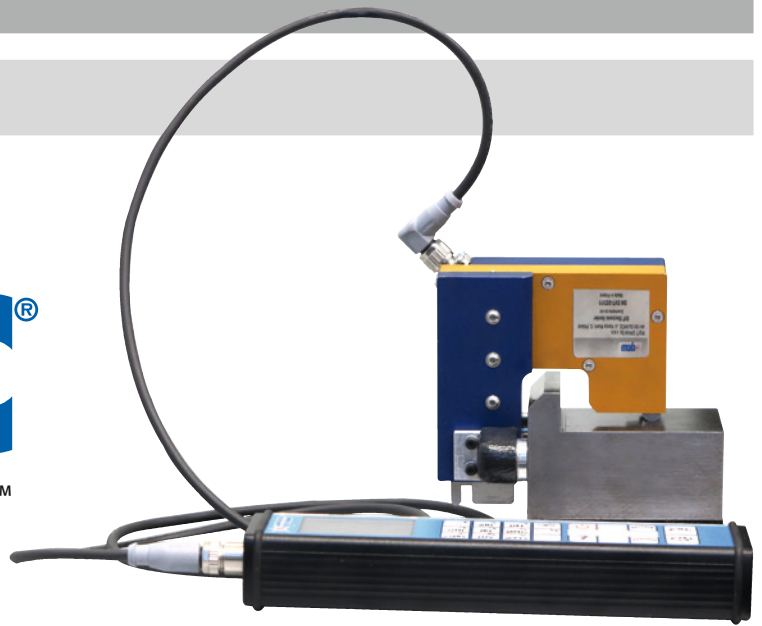
- Special interconnect solutions to customer specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments
- Enclosure technology for industrial use

CUSTOMIZED PRODUCTS

Application-specific-solutions

# CONEC<sup>®</sup>

TECHNOLOGY IN CONNECTORS<sup>™</sup>



Despite a comprehensive product portfolio of industrial connectors, customer requirements cannot always be satisfied from standard products. In such cases, it is essential to develop custom specific solutions for mechanical and plant engineering as quickly as possible.

Are you looking for application-specific solutions? The experienced CONEC design team creates solutions for you, for example:

- Special interconnect solutions to customer specifications
- Prototypes and small series production batches
- Connectors with increased IP ratings for harsh environments





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