



ingun[®]

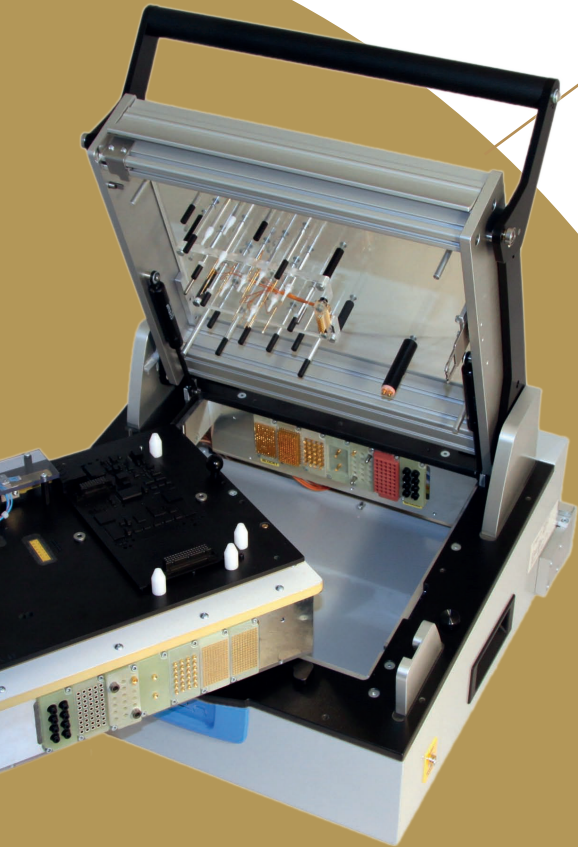
Test Probes · Test Fixtures

Interface Blocks

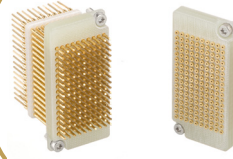
Reliable Connections



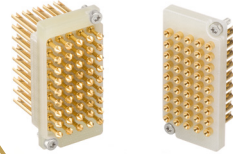
INGUN
Interface Blocks
for
internal interfaces



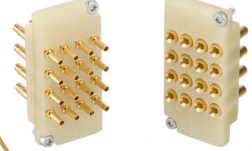
Signal Blocks



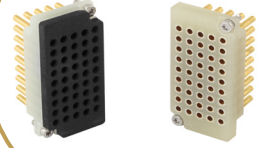
High-current
Blocks



Radio-frequency
Blocks



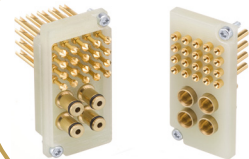
Optical wave-
guide Blocks



Pneumatic Blocks



Mixed- and
Special Blocks



INGUN
Interface Blocks
for
external interfaces



Safe signal transfer and constant low contact resistance

INGUN Interface Blocks are used as electrically conductive Connectors for the safe signal transfer in internal, external and customized Interfaces. Mounted with spring-loaded Test Probes, the matching contact strokes guarantee consistently low contact resistance and a constant reliable contact quality.

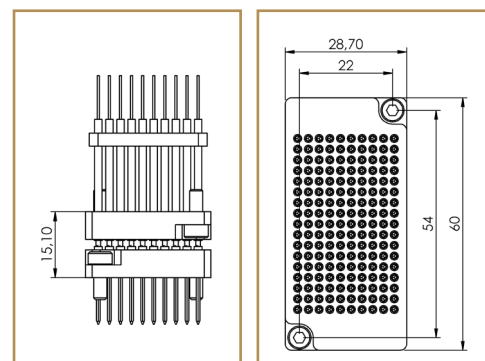
For the connection of the Interface Blocks, **Signal-, High-current-, Radio-frequency-, Optical wave-guide-, Pneumatic-, Mixed- and Special Blocks** are available as standard products in various versions, with and without centering. Further individually matching Mixed- and Special Blocks can be manufactured on request. Mounting material is included in delivery. The delivery of Interface Blocks without centering includes two screws DIN912 M3x8. The delivery of Interface Blocks with centering includes two screws DIN923 M3x4. The Interface Block pairs are mounted opposite each other and have to be positioned in a way signals are transferred unmistakably and reliably.

Our Low ohm Signal Blocks, mounted with spring-loaded High-current Probes are not designed for high-current transfers but especially for signal transfers with a constant low contact resistance of R_i typical $\leq 10 \text{ m}\Omega$. Our Radio-frequency Blocks are designed for loading of up to 16 transfer contacts and can be ordered depending on the demands with 1x up to 16x loading. The loading positions of the partly loaded Radio-frequency Blocks are freely selectable.

There are various connection techniques available for the wiring of our Interface Blocks depending on the type. As an alternative to the classical wire-wrap-connection and for wear-free, tool-free and a fast detachable connection, INGUN offers 64-pole flat ribbon cables or 10-pole plug connectors with already preconfigured wires and AWG 26 cross section.

Our standard Interface Blocks are designed for working space of $15.1 \pm 0.5 \text{ mm}$. Depending on the type of the Interface Block, it can be used in a temperature range from $-30 \text{ }^\circ\text{C}$ up to $+120 \text{ }^\circ\text{C}$ according to its specification. The contacting parts and spring-loaded Test Probes are originally manufactured by INGUN - Made in Germany.

- ✓ Safe signal transfer
- ✓ Constant low contact resistance
- ✓ Coordinated contact strokes
- ✓ Connection in internal, external and customized Interfaces
- ✓ Available as Signal-, High-current-, Radio-frequency-, optical wave- guide-, Pneumatic-, Mixed- and Special Blocks, in various standard versions with or without centering
- ✓ Further individually manufactured Mixed- and Special Blocks on request
- ✓ Mounting material is included in delivery
- ✓ Quick, simple and precise assembly
- ✓ Low ohm Signal Blocks with constant low contact resistance R_i typical $\leq 10 \text{ m}\Omega$
- ✓ Radio-frequency Blocks with $50 \text{ }\Omega$ Impedance to max. 18 GHz, with 1x- to 16x loading
- ✓ Wiring, according to specification through wire-wrap-, solder- or screwed connection or alternatively for the wire-wrap connection, through 64-pole flat ribbon cables or 10-pole plug connectors
- ✓ Working space from $15.1 \pm 0.5 \text{ mm}$
- ✓ Temperature range from $-30 \text{ }^\circ\text{C}$ up to $+120 \text{ }^\circ\text{C}$, depending on specification of Interface Block
- ✓ Contacting parts and spring-loaded Test Probes are originally manufactured by INGUN - Made in Germany.



Working space

Dimensions


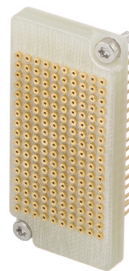


Our standard Interface Blocks are RoHS-compliant and are in accordance to the requirements of the EC-Directive 2011/65/EC.



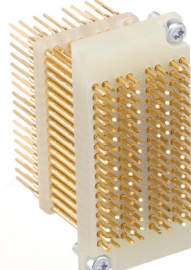
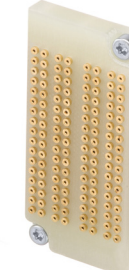
Our standard Interface Blocks which are used to transmit dangerous voltages are NSRL-compliant and are in accordance to the requirements of the EG-Low Voltage Directive 2014/35/EU.

170-pole Signal Block up to 4 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-945 47 • GKS-945 357 106 A 1100 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 2.6 mm • Spring force: 187 N • Air distance (not wired)*: 0.64 mm • R_j typical one Test Probe: 20 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 1 A • Max. Power loss** : 4 W • Min. Wire size: 0.25 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Wire-Wrap-Posts • RoHS-compliant (2011/65/EC): ✓
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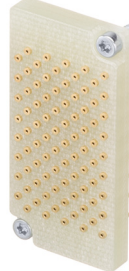
<p>SB-T-SI-170-4A Part No.: 27616</p>	<p>SB-P-SI-170-4A-0,6 Part No.: 13515</p>	<p>170-pole Signal Block up to 4 A</p> <ul style="list-style-type: none"> • 170x loaded
<p>SB-T-SI-170-4A-Z Part No.: 38690</p>	<p>SB-P-SI-170-4A-0,6-Z Part No.: 38692</p>	<p>170-pole Signal Block up to 4 A with centering</p> <ul style="list-style-type: none"> • 170x loaded

136-pole Signal Block up to 4 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-945 47 • GKS-945 357 106 A 1100 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 2.6 mm • Spring force: 150 N • Air distance (not wired)*: 0.64 mm • R_j typical one Test Probe: 20 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 1 A • Max. Power loss** : 4 W • Min. Wire size: 0.25 mm² • Centering Balancing (only SB-...-Z): ✗ • Temperature range: -30 °C to +80 °C • Connection via: Wire-Wrap-Posts • RoHS-compliant (2011/65/EC): ✓
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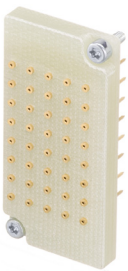
<p>SB-T-SI-136-4A Part No.: 36800</p>	<p>SB-P-SI-136-4A-0,6 Part No.: 33665</p>	<p>136-pole Signal Block up to 4 A</p> <ul style="list-style-type: none"> • 136x loaded
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85-pole Signal Block up to 4 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-945 47 • GKS-945 357 106 A 1100 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 2.6 mm • Spring force: 93.5 N • Air distance (not wired)*: 1.69 mm • R_j typical one Test Probe: 20 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 2 A • Max. Power loss** : 7 W • Min. Wire size: 0.25 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Wire-Wrap-Posts • RoHS-compliant (2011/65/EC): ✓
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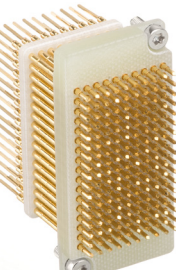
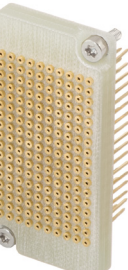
<p>SB-T-SI-085-4A Part No.: 30181</p>	<p>SB-P-SI-085-4A-0,6 Part No.: 44271</p>	<p>85-pole Signal Block up to 4 A</p> <ul style="list-style-type: none"> • 85x loaded
<p>SB-T-SI-085-4A-Z Part No.: 42346</p>	<p>SB-P-SI-085-4A-0,6-Z Part No.: 42344</p>	<p>85-pole Signal Block up to 4 A with centering</p> <ul style="list-style-type: none"> • 85x loaded

40-pole Signal Block up to 4 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-945 47 • GKS-945 357 106 A 1100 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 2.6 mm • Spring force: 44 N • Air distance (not wired)*: 3.18 mm • R_i typical one Test Probe: 20 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 3 A • Max. Power loss** : 7.5 W • Min. Wire size: 0.25 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Wire-Wrap-Posts • RoHS-compliant (2011/65/EC): ✓
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<p>SB-T-SI-040-4A Part No.: 37075</p>	<p>SB-P-SI-040-4A-0,6 Part No.: 37074</p>	<p>40-pole Signal Block up to 4 A</p> <ul style="list-style-type: none"> • 40x loaded
<p>SB-T-SI-040-4A-Z Part No.: 42342</p>	<p>SB-P-SI-040-4A-0,6-Z Part No.: 42339</p>	<p>40-pole Signal Block up to 4 A with centering</p> <ul style="list-style-type: none"> • 40x loaded

170-pole Signal Block up to 4 A Low Ohm

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-112 47 • HSS-118 317 175 A 1102 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Spring force: 187 N • Air distance (not wired)*: 0.34 mm • R_i typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 1.5 A • Max. Power loss** : 5 W • Min. Wire size: 0.25 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Wire-Wrap-Posts • RoHS-compliant (2011/65/EC): ✓
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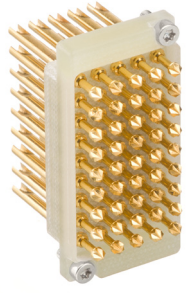
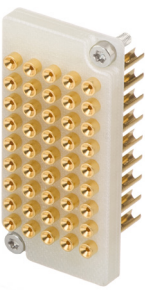
<p>SB-T-SI-170-4A-N Part No.: 31006</p>	<p>SB-P-SI-170-4A-0,6 Part No.: 13515</p>	<p>170-pole Signal Block up to 4 A Low Ohm</p> <ul style="list-style-type: none"> • 170x loaded
<p>SB-T-SI-170-4A-N-Z Part No.: 38694</p>	<p>SB-P-SI-170-4A-0,6-Z Part No.: 38692</p>	<p>170-pole Signal Block up to 4 A Low Ohm with centering</p> <ul style="list-style-type: none"> • 170x loaded

40-pole Signal Block up to 4 A Low Ohm

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-112 47 • HSS-118 317 175 A 1102 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Spring force: 44 N • Air distance (not wired)*: 2.88 mm • R_i typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 3 A • Max. Power loss** : 7.5 W • Min. Wire size: 0.25 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Wire-Wrap-Posts • RoHS-compliant (2011/65/EC): ✓
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<p>SB-T-SI-040-4A-N Part No.: 44225</p>	<p>SB-P-SI-040-4A-0,6 Part No.: 37074</p>	<p>40-pole Signal Block up to 4 A Low Ohm</p> <ul style="list-style-type: none"> • 40x loaded
<p>SB-T-SI-040-4A-N-Z Part No.: 44226</p>	<p>SB-P-SI-040-4A-0,6-Z Part No.: 42339</p>	<p>40-pole Signal Block up to 4 A Low Ohm with centering</p> <ul style="list-style-type: none"> • 40x loaded

45-pole High-current Block up to 30 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-113 30 M2-R • HSS-120 317 300 A 1502 M 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-120 L3 E02-30 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Spring force: 67.5 N • Air distance (not wired)*: 1.48 mm • R_j typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 30 A • Max. Current rating all Test Probes: 10 A • Max. Power loss** : 25 W • Min. Wire size: 1.0 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +120 °C • Connection via: Solder Connection • RoHS-compliant (2011/65/EC): ✓
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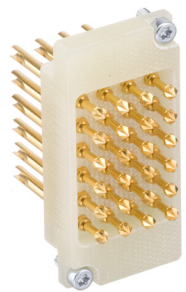
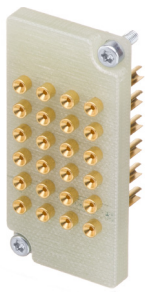
<p>SB-T-HS-045-30A Part No.: 30963</p>	<p>SB-P-HS-045-30A-1,0 Part No.: 16900</p>
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<p>45-pole High-current Block up to 30 A</p> <ul style="list-style-type: none"> • 45x loaded

<p>SB-T-HS-045-30A-Z Part No.: 38697</p>	<p>SB-P-HS-045-30A-1,0-Z Part No.: 38698</p>
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<p>45-pole High-current Block up to 30 A with centering</p> <ul style="list-style-type: none"> • 45x loaded
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24-pole High-current Block up to 30 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-113 30 M2-R • HSS-120 317 300 A 2202 M 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-120 L3 E02-30 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Spring force: 52.8 N • Air distance (not wired)*: 2.4 mm • R_j typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 30 A • Max. Current rating all Test Probes: 16 A • Max. Power loss** : 25 W • Min. Wire size: 1.5 mm² • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +120 °C • Connection via: Solder Connection • RoHS-compliant (2011/65/EC): ✓
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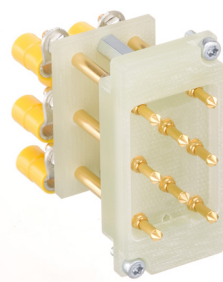

<p>SB-T-HS-024-30A Part No.: 27628</p>	<p>SB-P-HS-024-30A-1,0 Part No.: 27620</p>
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<p>24-pole High-current Block up to 30 A</p> <ul style="list-style-type: none"> • 24x loaded

<p>SB-T-HS-024-30A-Z Part No.: 38699</p>	<p>SB-P-HS-024-30A-1,0-Z Part No.: 38700</p>
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<p>24-pole High-current Block up to 30 A with centering</p> <ul style="list-style-type: none"> • 24x loaded
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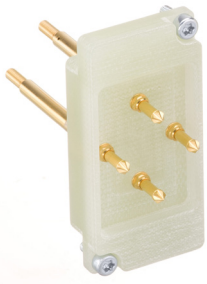

8-pole High-current Block up to 50 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-150 M3 M3-R • HSS-150 317 300 A 5002 M 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-150 L3 E03-M3 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.4 mm • Spring force: 40 N • Air distance (not wired)*: 1.6 mm (Cable Clip) • R_j typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 50 A • Max. Current rating all Test Probes: 25 A • Max. Power loss** : 25 W • Min. Wire size: 6.0 mm² • Centering Balancing (only SB-...-Z): ✗ • Temperature range: -30 °C to +120 °C • Connection via: Cable Clip • RoHS-compliant (2011/65/EC): ✓
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<p>SB-T-HS-008-50A Part No.: 35549</p>	<p>SB-P-HS-008-50A-1,0 Part No.: 35929</p>
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<p>8-pole High-current Block up to 50 A</p> <ul style="list-style-type: none"> • 8x loaded

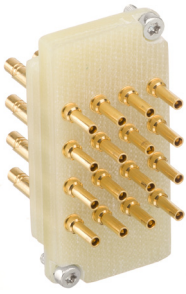
4-pole High-current Block up to 50 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-150 M3 M3-R • HSS-150 317 300 A 5002 M 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-150 L3 E03-M3 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.4 mm • Spring force: 20 N • Air distance (not wired)*: 9.1 mm • R_i typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 50 A • Max. Current rating all Test Probes: 35 A • Max. Power loss**: 25 W • Min. Wire size: 6.0 mm² • Centering Balancing (only SB-...-Z): X • Temperature range: -30 °C to +120 °C • Connection via: M3 Thread Posts • RoHS-compliant (2011/65/EC): ✓
<p>SB-T-HS-004-50A Part No.: 37699</p>	<p>SB-P-HS-004-50A-1,0 Part No.: 37698</p>	<p>4-pole High-current Block up to 50 A</p> <ul style="list-style-type: none"> • 4x loaded

2-pole High-current Block up to 50 A

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-150 M3 M3-R • HSS-150 317 300 A 5002 M 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-150 L3 E03-M3 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.4 mm • Spring force: 10 N • Air distance (not wired)*: 15.7 mm • R_i typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 50 A • Max. Current rating all Test Probes: 35 A • Max. Power loss**: 25 W • Min. Wire size: 6.0 mm² • Centering Balancing (only SB-...-Z): X • Temperature range: -30 °C to +120 °C • Connection via: M3 Thread Posts • RoHS-compliant (2011/65/EC): ✓
<p>SB-T-HS-002-50A Part No.: 31549</p>	<p>SB-P-HS-002-50A-1,0 Part No.: 31550</p>	<p>2-pole High-current Block up to 50 A</p> <ul style="list-style-type: none"> • 2x loaded

16-pole Radio-frequency Block up to 700 MHz



SB for Test System side loaded with:

- KS-110 23
- HFS-110 307 100 A 3002 A



SB for PCB side loaded with:

- SB-810 Z

Technical Data:

- Working space: 15.1 ± 0.5 mm
- Working stroke: 4.0 mm
- Spring force: up to 48 N
- Frequency range: up to 0.7 GHz
- Impedance: 50 Ω
- Centering Balancing (only SB-...-Z): **X**
- Temperature range: -30 °C to +80 °C
- Connection via: Plug SE-...
- RoHS-compliant (2011/65/EC): **✓**
- Pre-wired plugs with RF-Coaxial cables SE-.... are not included in the scope of delivery and can be ordered separately (RF-Probes Catalog).

SB-T-HF-016-0,7GHz-01
Part No.: **38125**

SB-P-HF-016-0,7GHz-01
Part No.: **38170**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 1x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-02
Part No.: **38124**

SB-P-HF-016-0,7GHz-02
Part No.: **38169**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 2x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-03
Part No.: **38123**

SB-P-HF-016-0,7GHz-03
Part No.: **38168**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 3x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-04
Part No.: **38122**

SB-P-HF-016-0,7GHz-04
Part No.: **38167**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 4x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-05
Part No.: **38121**

SB-P-HF-016-0,7GHz-05
Part No.: **38166**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 5x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-06
Part No.: **38120**

SB-P-HF-016-0,7GHz-06
Part No.: **38165**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 6x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-07
Part No.: **38119**

SB-P-HF-016-0,7GHz-07
Part No.: **38164**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 7x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-08
Part No.: **38118**

SB-P-HF-016-0,7GHz-08
Part No.: **38163**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 8x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-09
Part No.: **38117**

SB-P-HF-016-0,7GHz-09
Part No.: **38162**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 9x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-10
Part No.: **38116**

SB-P-HF-016-0,7GHz-10
Part No.: **38161**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 10x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-11
Part No.: **38115**

SB-P-HF-016-0,7GHz-11
Part No.: **38160**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 11x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-12
Part No.: **38114**

SB-P-HF-016-0,7GHz-12
Part No.: **38159**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 12x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-13
Part No.: **38113**

SB-P-HF-016-0,7GHz-13
Part No.: **38158**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 13x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-14
Part No.: **38112**

SB-P-HF-016-0,7GHz-14
Part No.: **38157**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 14x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz-15
Part No.: **38111**

SB-P-HF-016-0,7GHz-15
Part No.: **38156**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 15x loaded (loading position freely selectable)

SB-T-HF-016-0,7GHz
Part No.: **31004**

SB-P-HF-016-0,7GHz
Part No.: **31002**

16-pole Radio-frequency Blocks up to 0,7 GHz
• 16x loaded

The Radio-frequency Blocks up to **0,7 GHz** made by INGUN are designed to take up to 16 transfer contacts and can be ordered according to the present requirements from 1 to max. 16 x loaded. The loading position of the partly-loaded RF-Blocks are freely selectable.

16-pole Radio-frequency Blocks up to 2 GHz with centering

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-810 • HFS-810 305 051 A 5306 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • SB-810 Z 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Spring force: up to 84.8 N • Frequency range: up to 2 GHz • Impedance: 50 Ω • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Plug SE-... • RoHS-compliant (2011/65/EC): ✓ <ul style="list-style-type: none"> • Pre-wired plugs with RF-Coaxial cables SE-.... are not included in the scope of delivery and can be ordered separately (RF-Probes Catalog).
<p>SB-T-HF-016-2GHz-01-Z Part No.: 38141</p>	<p>SB-P-HF-016-4GHz-01-Z Part No.: 38185</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 1x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-02-Z Part No.: 38140</p>	<p>SB-P-HF-016-4GHz-02-Z Part No.: 38184</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 2x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-03-Z Part No.: 38139</p>	<p>SB-P-HF-016-4GHz-03-Z Part No.: 38183</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 3x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-04-Z Part No.: 38138</p>	<p>SB-P-HF-016-4GHz-04-Z Part No.: 38182</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 4x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-05-Z Part No.: 38137</p>	<p>SB-P-HF-016-4GHz-05-Z Part No.: 38181</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 5x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-06-Z Part No.: 38136</p>	<p>SB-P-HF-016-4GHz-06-Z Part No.: 38180</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 6x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-07-Z Part No.: 38135</p>	<p>SB-P-HF-016-4GHz-07-Z Part No.: 38179</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 7x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-08-Z Part No.: 38134</p>	<p>SB-P-HF-016-4GHz-08-Z Part No.: 38178</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 8x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-09-Z Part No.: 38133</p>	<p>SB-P-HF-016-4GHz-09-Z Part No.: 38177</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 9x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-10-Z Part No.: 38132</p>	<p>SB-P-HF-016-4GHz-10-Z Part No.: 38176</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 10x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-11-Z Part No.: 38131</p>	<p>SB-P-HF-016-4GHz-11-Z Part No.: 38175</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 11x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-12-Z Part No.: 38130</p>	<p>SB-P-HF-016-4GHz-12-Z Part No.: 38174</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 12x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-13-Z Part No.: 38129</p>	<p>SB-P-HF-016-4GHz-13-Z Part No.: 38173</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 13x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-14-Z Part No.: 38128</p>	<p>SB-P-HF-016-4GHz-14-Z Part No.: 38172</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 14x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-15-Z Part No.: 38127</p>	<p>SB-P-HF-016-4GHz-15-Z Part No.: 38171</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 15x loaded (loading position freely selectable)
<p>SB-T-HF-016-2GHz-Z Part No.: 34581</p>	<p>SB-P-HF-016-4GHz-Z Part No.: 34571</p>	<p>16-pole Radio-frequency Blocks up to 2 GHz with centering</p> <ul style="list-style-type: none"> • 16x loaded

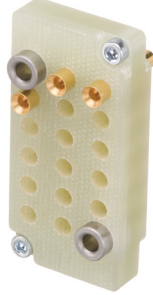
The Radio-frequency Blocks up to **2 GHz** made by INGUN are designed to take up to 16 transfer contacts and can be ordered according to the present requirements from 1 to max. 16 x loaded. The loading position of the partly-loaded RF-Blocks are freely selectable.

16-pole Radio-frequency Blocks up to 4 GHz with centering



SB for Test System side loaded with:

- KS-810
- HFS-840 305 051 A 5306



SB for PCB side loaded with:

- SB-810 Z

Technical Data:



- Working space: 15.1 ± 0.5 mm
- Working stroke: 4.0 mm
- Spring force: up to 84.8 N
- Frequency range: up to 4 GHz
- Impedance: 50 Ω
- Centering Balancing (only SB-...-Z): ± 0.3 mm
- Temperature range: -30 °C to +80 °C
- Connection via: Plug SE-...
- RoHS-compliant (2011/65/EC): ✓

- Pre-wired plugs with RF-Coaxial cables SE-.... are not included in the scope of delivery and can be ordered separately (RF-Probes Catalog).

SB-T-HF-016-4GHz-01-Z Part No.: 38155	SB-P-HF-016-4GHz-01-Z Part No.: 38185	16-pole Radio-frequency Blocks up to 4 GHz with centering • 1x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-02-Z Part No.: 38154	SB-P-HF-016-4GHz-02-Z Part No.: 38184	16-pole Radio-frequency Blocks up to 4 GHz with centering • 2x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-03-Z Part No.: 39681	SB-P-HF-016-4GHz-03-Z Part No.: 38183	16-pole Radio-frequency Blocks up to 4 GHz with centering • 3x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-04-Z Part No.: 38153	SB-P-HF-016-4GHz-04-Z Part No.: 38182	16-pole Radio-frequency Blocks up to 4 GHz with centering • 4x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-05-Z Part No.: 38152	SB-P-HF-016-4GHz-05-Z Part No.: 38181	16-pole Radio-frequency Blocks up to 4 GHz with centering • 5x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-06-Z Part No.: 38151	SB-P-HF-016-4GHz-06-Z Part No.: 38180	16-pole Radio-frequency Blocks up to 4 GHz with centering • 6x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-07-Z Part No.: 38150	SB-P-HF-016-4GHz-07-Z Part No.: 38179	16-pole Radio-frequency Blocks up to 4 GHz with centering • 7x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-08-Z Part No.: 38149	SB-P-HF-016-4GHz-08-Z Part No.: 38178	16-pole Radio-frequency Blocks up to 4 GHz with centering • 8x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-09-Z Part No.: 38148	SB-P-HF-016-4GHz-09-Z Part No.: 38177	16-pole Radio-frequency Blocks up to 4 GHz with centering • 9x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-10-Z Part No.: 38147	SB-P-HF-016-4GHz-10-Z Part No.: 38176	16-pole Radio-frequency Blocks up to 4 GHz with centering • 10x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-11-Z Part No.: 38146	SB-P-HF-016-4GHz-11-Z Part No.: 38175	16-pole Radio-frequency Blocks up to 4 GHz with centering • 11x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-12-Z Part No.: 38145	SB-P-HF-016-4GHz-12-Z Part No.: 38174	16-pole Radio-frequency Blocks up to 4 GHz with centering • 12x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-13-Z Part No.: 38144	SB-P-HF-016-4GHz-13-Z Part No.: 38173	16-pole Radio-frequency Blocks up to 4 GHz with centering • 13x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-14-Z Part No.: 38143	SB-P-HF-016-4GHz-14-Z Part No.: 38172	16-pole Radio-frequency Blocks up to 4 GHz with centering • 14x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-15-Z Part No.: 38142	SB-P-HF-016-4GHz-15-Z Part No.: 38171	16-pole Radio-frequency Blocks up to 4 GHz with centering • 15x loaded (loading position freely selectable)
SB-T-HF-016-4GHz-Z Part No.: 34996	SB-P-HF-016-4GHz-Z Part No.: 34571	16-pole Radio-frequency Blocks up to 4 GHz with centering • 16x loaded



The Radio-frequency Blocks up to 4 GHz made by INGUN are designed to take up to 16 transfer contacts and can be ordered according to the present requirements from 1 to max. 16 x loaded. The loading position of the partly-loaded RF-Blocks are freely selectable.

8-pole Radio-frequency Blocks up to 6 GHz with centering



 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-810 • HFS-860 308 110 A 5342 E1F 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • SB-860 Z 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Spring force: up to 42.4 N • Frequency range: up to 6 GHz • Impedance: 50 Ω • Centering Balancing (only SB-...-Z): ± 0.3 mm • Temperature range: -30 °C to +80 °C • Connection via: Plug SE-... • RoHS-compliant (2011/65/EC): ✓ <ul style="list-style-type: none"> • Pre-wired plugs with RF-Coaxial cables SE-... are not included in the scope of delivery and can be ordered separately (RF-Probes Catalog).
<p>SB-T-HF-008-6GHz-01-Z Part No.: 42218</p>	<p>SB-P-HF-008-6GHz-01-Z Part No.: 42717</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 1x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-02-Z Part No.: 42217</p>	<p>SB-P-HF-008-6GHz-02-Z Part No.: 42716</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 2x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-03-Z Part No.: 42216</p>	<p>SB-P-HF-008-6GHz-03-Z Part No.: 42708</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 3x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-04-Z Part No.: 42215</p>	<p>SB-P-HF-008-6GHz-04-Z Part No.: 42707</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 4x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-05-Z Part No.: 41825</p>	<p>SB-P-HF-008-6GHz-05-Z Part No.: 42706</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 5x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-06-Z Part No.: 41824</p>	<p>SB-P-HF-008-6GHz-06-Z Part No.: 42629</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 6x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-07-Z Part No.: 41823</p>	<p>SB-P-HF-008-6GHz-07-Z Part No.: 42628</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 7x loaded (loading position freely selectable)
<p>SB-T-HF-008-6GHz-Z Part No.: 41165</p>	<p>SB-P-HF-008-6GHz-Z Part No.: 42627</p>	<p>8-pole Radio-frequency Blocks up to 6 GHz with centering</p> <ul style="list-style-type: none"> • 8x loaded

The Radio-frequency Blocks up to **6 GHz** made by INGUN are designed to take up to 16 transfer contacts and can be ordered according to the present requirements from 1 to max. 16 x loaded. The loading position of the partly-loaded RF-Blocks are freely selectable.

Radio-frequency Blocks 4-pole up to 18 GHz

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • Connector male (Part No. 37065) 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • Connector female (Part No. 35533) 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working stroke: 15.1 - 0.5 mm • Frequency range: up to 18 GHz • Impedance: 50 Ω • Centering Balancing (only SB-...-Z): ✗ • Temperature range: 0 °C to +80 °C • Connection via: Plug SE-... • RoHS-compliant (2011/65/EC): ✓ <ul style="list-style-type: none"> • Pre-wired plugs with RF-Coaxial cables SE-... are not included in the scope of delivery and can be ordered separately (RF-Probes Catalog).
<p>SB-T-HF-004-18GHz Part No.: 35534</p>	<p>SB-P-HF-004-18GHz Part No.: 35532</p>	<p>Radio-frequency Blocks 4-pole up to 18 GHz</p> <ul style="list-style-type: none"> • 4x loaded

24-pole Optical wave-guide Blocks for $LWL_{DK} = 1.6 \text{ mm}$ with centering

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> Connector male (Part No. 22042) 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> Connector male (Part No. 22042) 	<p>Technical Data:</p> <ul style="list-style-type: none"> Working space: $15.1 \pm 0.5 \text{ mm}$ Optical wave-guide: $DK = 1.6 \text{ mm}$ Seal: Spring-loaded Centering Balancing (only SB-...-Z): $\pm 0.3 \text{ mm}$ Temperature range: $-30 \text{ }^\circ\text{C}$ to $+80 \text{ }^\circ\text{C}$ Connection via: Connector male RoHS-compliant (2011/65/EC): <input checked="" type="checkbox"/> Optical wave-guide are not included in the scope of delivery and can be ordered separately. Optical wave-guide with $DM = 2.3 \text{ mm}$: Part No. 39910 (Assembled Optical wave-guide have to be stripped to $\varnothing 1.6 \text{ mm}$ at a length of approx. 4.3 mm.) Length on request, delivery per meter
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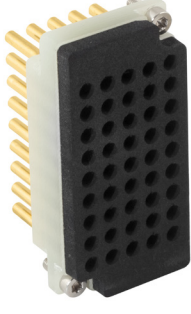
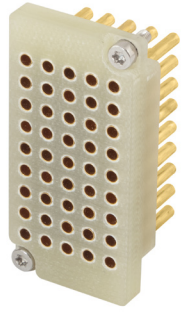
SB-T-LL-024-DK1,5-Z
Part No.: **30210**

SB-P-LL-024-DK1,5-Z
Part No.: **30211**

24-pole Optical wave-guide Blocks for $LWL_{DK} = 1.6 \text{ mm}$ with centering

- 24x loaded

45-pole Optical wave-guide Blocks for $LWL_{DM} = 2.3 \text{ mm}$

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> KS-004 35 G-K 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> KS-004 35 G-K 	<p>Technical Data:</p> <ul style="list-style-type: none"> Working space: $15.1 \pm 0.5 \text{ mm}$ Optical wave-guide: $DM = 2.3 \text{ mm}$ Seal: EPM Rubber Centering Balancing (only SB-...-Z): <input checked="" type="checkbox"/> Temperature range: $-30 \text{ }^\circ\text{C}$ to $+80 \text{ }^\circ\text{C}$ Connection via: Receptacle RoHS-compliant (2011/65/EC): <input checked="" type="checkbox"/> Optical wave-guide are not included in the scope of delivery and can be ordered separately. Optical wave-guide with $DM = 2.3 \text{ mm}$: Part No. 39910 Length on request, delivery per meter
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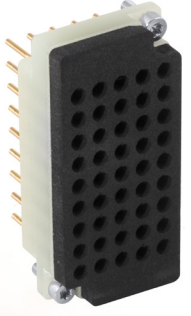
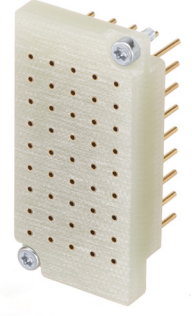
SB-T-LL-045-DM2,3-K
Part No.: **27618**

SB-P-LL-045-DM2,3
Part No.: **29448**

45-pole Optical wave-guide Blocks for $LWL_{DM} = 2.3 \text{ mm}$

- 45x loaded

45-pole Optical wave-guide Blocks for $LWL_{DM} = 1.0 \text{ mm}$

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> KS-075 35 K-LWL 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> KS-075 35 K-LWL 	<p>Technical Data:</p> <ul style="list-style-type: none"> Working space: $15.1 \pm 0.5 \text{ mm}$ Optical wave-guide: $DM = 1.0 \text{ mm}$ Seal: EPM Rubber Centering Balancing (only SB-...-Z): <input checked="" type="checkbox"/> Temperature range: $-30 \text{ }^\circ\text{C}$ to $+80 \text{ }^\circ\text{C}$ Connection via: Receptacle RoHS-compliant (2011/65/EC): <input checked="" type="checkbox"/> Optical wave-guide are not included in the scope of delivery and can be ordered separately. Optical wave-guide with $DM = 1.0 \text{ mm}$: Part No. 33330 Length on request, delivery per meter
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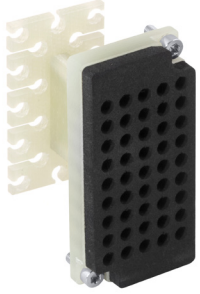
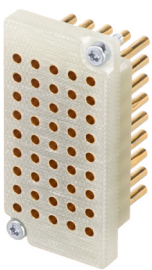
SB-T-LL-045-DM1,0-K
Part No.: **41017**

SB-P-LL-045-DM1,0
Part No.: **41020**

45-pole Optical wave-guide Blocks for $LWL_{DM} = 1.0 \text{ mm}$

- 45x loaded

20-pole Optical wave-guide Blocks for Feasa Optical Heads OH-3

 <p>SB for Test System side prepared for:</p> <ul style="list-style-type: none"> For up to 20x Feasa Optical Heads OH-3 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> KS-004 35 G-K 	<p>Technical Data:</p> <ul style="list-style-type: none"> Working space: 15.1 ± 0.5 mm Optical wave-guide for SB-P: DM = 2.3 mm Seal: EPM Rubber Centering Balancing (only SB-...-Z): X Temperature range: -30 °C to +80 °C Connection via: Receptacle RoHS-compliant (2011/65/EC): ✓ <ul style="list-style-type: none"> Optical wave-guide and Feasa Optical Heads OH-3 are not included in the scope of delivery and can be ordered separately. Optical wave-guide with DM = 2.3 mm: Part No: 39910 Length on request, delivery per meter
<p>SB-T-LL-020-OH3-K Part No.: 38696</p>	<p>SB-P-LL-045-DA2,3 Part No.: 29448</p>	<p>20-pole Optical wave-guide Blocks for Feasa Optical Heads OH-3</p> <ul style="list-style-type: none"> For up to 20x Feasa Optical Heads OH-3



Ordering informations for Feasa LED-analyser:

Feasa LED-analysers are used for the testing of several LEDs regarding color and brightness at the same time. Two versions are available.



- Feasa-F LED-Analyser (FKT = with housing):**
 - Feasa-F 20 channel incl. 20x Optical Head OH-3: Part No.: **33685**
 - Feasa-F 10 channel incl. 10x Optical Head OH-3: Part No.: **31211**
 - Feasa-F 6 channel incl. 6x Optical Head OH-3: Part No.: **34811**
 - Feasa-F 3 channel incl. 3x Optical Head OH-3: Part No.: **38918**
- Feasa-I LED-Analyser (ICT = without housing):**
 - Feasa-I 20 channel incl. 20x Optical Head OH-3: Part No.: **33684**
 - Feasa-I 10 channel incl. 10x Optical Head OH-3: Part No.: **31210**
 - Feasa-I 6 channel incl. 6x Optical Head OH-3: Part No.: **34812**
 - Feasa-I 3 channel incl. 3x Optical Head OH-3: Part No.: **34864**



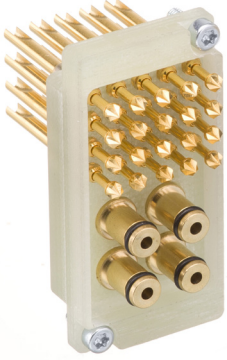
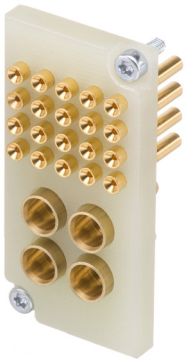
8-pole Pneumatic Blocks

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KSV-PK-3 (Part No. 21085) 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KDV-PK-3 (Part No. 21084) 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Compressed Air typical: 0.6 MPa • Compressed Air Quality: ISO 8573-1:2010 • Compressed Air Connection: PK-3 • Compressed Air Locking (SB-T-PN-...): X • Centering Balancing (only SB-...-Z): X • Temperature range: -30 °C to +120 °C • Connection via: Plug nipple • RoHS-compliant (2011/65/EC): ✓ <ul style="list-style-type: none"> • Pneumatic hoses are not included in the scope of delivery and can be ordered separately. • Pneumatic hose PUN-4x0.75-BL: Part No.: 26707 Length on request, delivery per meter
<p>SB-T-PN-008-PK3 Part No.: 27630</p>	<p>SB-P-PN-008-PK3 Part No.: 27622</p>	<p>8-pole Pneumatic Blocks</p> <ul style="list-style-type: none"> • 8x loaded

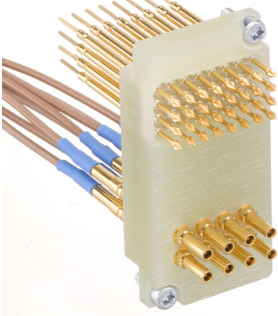

8-pole Pneumatic Blocks with compressed air locking at test system side

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • Connector female (Part No. 37819) 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • Connector male (Part No. 37818) 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Compressed Air typical: 0.6 MPa • Compressed Air Quality: ISO 8573-1:2010 • Compressed Air Connection: PK-3 • Compressed Air Locking (SB-T-PN-...): ✓ • Centering Balancing (only SB-...-Z): X • Temperature range: -30 °C to +120 °C • Connection via: Plug nipple • RoHS-compliant (2011/65/EC): ✓ <ul style="list-style-type: none"> • Pneumatic hoses are not included in the scope of delivery and can be ordered separately. • Pneumatic hose PUN-4x0.75-BL: Part No.: 26707 Length on request, delivery per meter
<p>SB-T-PN-008-PK3-A Part No.: 37820</p>	<p>SB-P-PN-008-PK3-A Part No.: 37821</p>	<p>8-pole Pneumatic Blocks with test system sided locking</p> <ul style="list-style-type: none"> • 8x loaded

20-pole Mixed Blocks HS and 4-pole PN-connection

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-113 30 M2-R • HSS-120 317 300 A 1502 M • KSV-PK-3 (Part No. 21085) 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-120 L3 E02-30 • KDV-PK-3 (Part No. 21084) 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Temperature range: -30 °C to +120 °C • RoHS-compliant (2011/65/EC): ✓ <p>HS-Connection</p> <ul style="list-style-type: none"> • Spring force: 30 N • Air distance (not wired)*: 1.48 mm • R_i typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 30 A • Max. Current rating all Test Probes: 10 A • Max. Power loss** : 25 W • Min. Wire size: 1.0 mm² • Connection via: Solder Connection <p>PN-Connection</p> <ul style="list-style-type: none"> • Compressed Air typical: 0.6 MPa • Compressed Air Quality: ISO 8573-1:2010 • Compressed Air Connection: PK-3 • Connection via: Plug nipple
<p>SB-T-MB-20/4-30A/PK3 Part No.: 32020</p>	<p>SB-P-MB-20/4-30A/PK3 Part No.: 31867</p>	<p>20-pole Mixed Blocks HS and 4-pole PN-connection</p> <ul style="list-style-type: none"> • 20x / 4x loaded

32-pole Mixed Blocks HS and 8-pole PN-connection

 <p>SB for Test System side loaded with:</p> <ul style="list-style-type: none"> • KS-112 47 • HSS-118 317 175 A 1502 • KS-110 23 • HFS-110 307 100 A 3002 A • SE-RG178-50110MG075 	 <p>SB for PCB side loaded with:</p> <ul style="list-style-type: none"> • KT-158 06 • SB-810 Z 	<p>Technical Data:</p> <ul style="list-style-type: none"> • Working space: 15.1 ± 0.5 mm • Working stroke: 4.0 mm • Temperature range: -30 °C to +80 °C • RoHS-compliant (2011/65/EC): ✓ <p>HS-Connection</p> <ul style="list-style-type: none"> • Spring force: 48 N • Air distance (not wired)*: 0.34 mm • R_i typical one Test Probe: ≤ 10 mΩ • Max. Current rating one Test Probe: 4 A • Max. Current rating all Test Probes: 1.5 A • Max. Power loss** : 5 W • Min. Wire size: 0.25 mm² • Connection via: Wire-Wrap-Posts <p>HF-Connection</p> <ul style="list-style-type: none"> • Spring force: 32 N • Frequency range: up to 0.7 GHz • Impedance: 50 Ω • Connection via: Plug SE-...
<p>SB-T-MB-32/8-16A/0,7GHz Part No.: 43190</p>	<p>SB-P-MB-32/8-16A/0,7GHz Part No.: 43189</p>	<p>32-pole Mixed Blocks HS and 8-pole PN-connection</p> <ul style="list-style-type: none"> • 32x / 8x loaded

Special Block Pole-Clip



SB for **PCB side**
loaded with:

- Pole-Clip, red
Ø 4.0 mm (Part No. 8847)
- Pole-Clip, black
Ø 4,0 mm (Part No. 3645)

Technical Data:

- Temperature range:
-20 °C to +100 °C
- RoHs-compliant
(2011/65/EC): ✓

SB-P-SO-002-Pole-Clip
Part No.: 35910

Special Block Pole-Clip

- 2x loaded

Special Block Sub-D socket



SB for **PCB side**
loaded with:

- 9-pole Sub-D socket
(Part No. 29629)

Technical Data:

- Temperature range:
-20 °C to +100 °C
- RoHs-compliant
(2011/65/EC): ✓

SB-P-SO-009-Sub-D socket
Part No.: 35909

Special Block Sub-D socket

- 1x loaded

Special Block IDC socket



SB for **PCB side**
loaded with:

- 10-pole IDC socket
(Part No. 11937)

Technical Data:

- Temperature range:
-20 °C to +100 °C
- RoHs-compliant
(2011/65/EC): ✓

SB-P-SO-010-IDC socket
Part No.: 37662

Special Block IDC socket

- 1x loaded

Special Block RJ45 socket



SB for **PCB side**
loaded with:

- 8-pole RJ45 socket
(Part No. 23752)

Technical Data:

- Temperature range:
-20 °C to +80 °C
- RoHs-compliant
(2011/65/EC): ✓

SB-P-SO-002-RJ45 socket
Part No.: 23804

Special Block RJ45 socket

- 2x loaded

Cable Connection

As an alternative to the classical wire-wrap-connection and for wear-free, tool-free and a fast detachable connection, INGUN offers 64-pole flat ribbon cables or 10-pole plug connectors with already preconfigured wires and AWG 26 cross section for the wiring of our Standard Interface Blocks.

64-pole flat ribbon cable

Technical Data:

- Version: 64-pole flat ribbon cable, preconfigured with 4x 16-pole socket strip and 1x 64-pole VG-strip
- Length: approx. 700 mm
- Wire size: AWG 28
- Color: grey

Ordering term:

- 64-pole flat ribbon cable: Part No.: **33175**



64-pole flat ribbon cable

10-pole plug connectors

Technical Data:

- Version: 10-pole plug connectors, preconfigured with 10x wires
- Length: approx. 700 mm
- Wire size: AWG 26
- Color: yellow or green

Ordering termen:

- 10-pole plug connectors, wires yellow: Part No.: **43371**
- 10-pole plug connectors, wires green: Part No.: **43372**



10-pole plug connectors, yellow wires

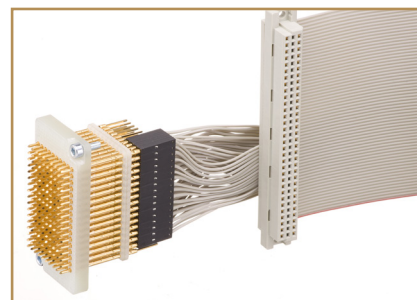


10-pole plug connectors, green wires

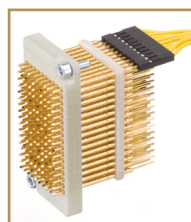
Accessories

Ordering termen:

- Wire AWG 26 with crimp contact black, 700 mm long: Part No.: **43373**
- Wire AWG 26 with crimp contact yellow, 700 mm long: Part No.: **43374**
- Wire AWG 26 with crimp contact red, 700 mm long: Part No.: **43375**
- Wire AWG 26 with crimp contact green, 700 mm long: Part No.: **43376**
- 10-pole socket housing: Part No.: **43377**



SB-T-SI-170-4A with 64-pole flat ribbon cable



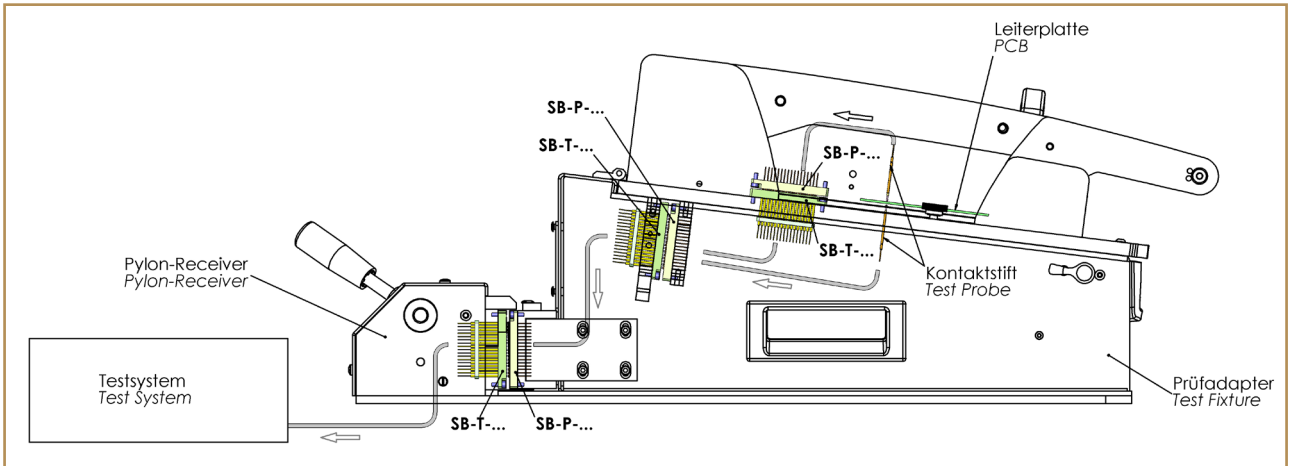
SB-T-SI-170-4A with 10-pole plug connectors (yellow wires)



SB-T-SI-170-4A with 10-pole plug connectors (green wires)

Ordering term

INGUN Interface Blocks are called **SB-...** and distinguished between Interface Blocks mounted to test system side (**SB-T-...**) and Interface Blocks mounted to PCB side (**SB-P-...**). Within the range of Standard Interface Blocks, nearly all Interface Blocks mounted to test system side are loaded with Spring-Loaded Test Probes and the Interface Blocks mounted to the PCB side are loaded with rigid contacting parts.



Interface Blocks SB-T-... and SB-P-...

Ordering Index

The structured and logical constellation of the individual numbers e.g. version, type, numbers of poles, size/value, loaded poles etc. allows clear identification and classification of our standard Interface Blocks.

SB		T		HF		016		4GHz		08		Z	
Name		Version		Type		Number of poles		Parameter / Value		Loaded poles *		Others *	
SB	Interface Block	T	Interface Block for Test System side	SI	Signal Block	XXX	Number of available poles (3 characters for SI-, HS-, HF-, LL-, PN-, SO-Block)	XXXX	Max. nominal current for 1 Test Probe in [A] (for SI-, HS-Block)	XX respec. -	Number of loaded poles (2 characters for part-, res. no indication for full-loading)	N	Low-Ohm (only SI-Block with R_i typ. < 10m Ω , loaded with HSS and spring force < 1,5 N)
		P	Interface Block for PCB side	HS	High-current Block	X/X/...	Number of available poles (X characters for MB-Block (descending sequence), e.g. 16/12/2)	X,XGHz respec. XXGHz	Max. Frequency range in [GHz] (for HF-Block)			S	Silicone seal (only LL-Block)
				HF	Radio-frequency Block			DAX,X respec. DIX,X or OHX	Outer res. inner diameter of LWL in [mm] or type of Optical Head (only LL-Block)			A	Air locking (only PN-Block)
				LL	Optical wave-guide Block			PKX	Nominal width of compressed air connection (for PN-Block, e.g. PK3)			X	Name of plug connector (only SO-Block)
				PN	Pneumatic Block			X/X/...	Specific parameter (for MB-Block, e.g. 24A/4GHz/PK3)			W	High temperature (only SO-Block)
				MB	Mixed Block (Block with at least 2 different Contact Terminals)			XXX...	Specific text information (for SO-Block, e.g. RJ45 socket)			X,X respec. Flat	Version of Contact Terminal (only SI-, HS-Block, e.g. ϕ 0,6 = 0,6, ϕ 1,1 = 1,1 ϕ 0 = flat)
				SO	Special Block							Z	Centering (for all Interface Blocks with Centering)

* Alphabetic order when multiple mentions

Foreseeable misuse

The following is not allowed operating the Interface Blocks:

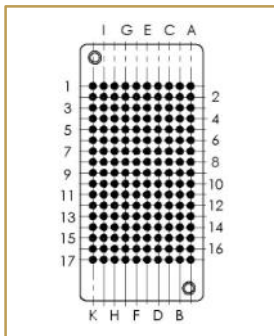
- in unspecified power range
- with imprecise alignment opposite each other
- in for contact accessible assembly (the protection rating IP2X according to DIN EN 60529-1 has to be complied)
- in unmounted state
- with unspecified wiring reducing the air distance of the contacts, exceeding the bending radius or producing transverse forces on the contacts.

Maintenance

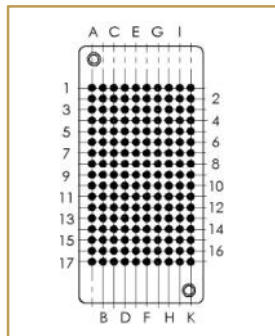
A reliable signal transmission with constant low contact resistance is only possible with fully functional contact transfers. A reliable signal quality can be guaranteed, provided there is:

- no contamination on the contacting tips
- no wear on the tops of the contacting tips
- no scratches at the plunger of transfer contacts
- no wear at the fitting of transfer contacts
- sure fitting in the Receptacle
- no bending of transfer contacts

Connection plan (from wiring side)



SB-T...



SB-P...

* Air distance and max. allowable current:

The air distance is the shortest gap between two conductive components and decisive for the max. allowable current of the applied Interface Block pairs. The main rule for the sparkover of sharp components in the air under standard conditions is: for each mm distance approx. 0.8 kV.

(Max. allowable current at 170-pole Low Ohm Blocks, for example: 0.34 mm (air distance not wired) * 0.8 kV ≈ 270 V)

** Power Loss:

The max. power loss is the power resulting from the heat and decisive for the max. current rating of the applied Interface Block pairs. The power loss is calculated according to the formula: $P = I^2 \cdot R$

(Max. current rating at 170-pole Low Ohm Blocks, for example: 170x 1.5 A or 150x 0.65 A and 20x 4 A)

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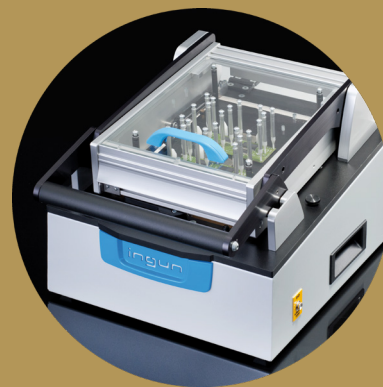
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 Prices and delivery time on request.
 Technical changes possible without prior notification.

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 Please note especially our Manual Test Fixtures of the series MA 21xx.





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ingun[®]

INGUN Prüfmittelbau GmbH

Max-Stromeyer-Straße 162
78467 Konstanz

Germany

Phone +49 7531 8105-0

Service +49 7531 8105-888

Fax +49 7531 8105-65

info@ingun.com

www.ingun.com