

## A complete range of innovative and more simple to use sensors

Benefit from Telemecanique's major innovation:

### Osiconcept®

Offering simplicity through innovation

A worldwide detection first for improving productivity:

- b product selection simplified
  - b product availability simplified
  - b installation and setting-up simplified
  - b maintenance simplified
  - b detection simplified using a single supplier.
- Improved simplicity for improved productivity.

## Osiconcept

Improve performance by making your selection and assembly *less complicated* and *more intelligent*.

Improve service expertise with an efficient product line offering *simplified* selection and improved selling potential.

Reduce maintenance time with products that are *simpler* and unequalled in *flexibility*.



Select the sensor according to your specific requirements

**“Universal” series:**

Multi-purpose products providing multiple functions. Osiconcept products are included in this series.

**“Optimum” series:**

Designed for essential and repetitive functions.

**“Application” series:**

Offers functions specifically for specialist needs, thus providing the ideal solution for your more complex applications.

# Contents

> A single product that automatically adapts to all conditions



> A single product that automatically adapts to all installation environments



> A single product that automatically learns both its detection mode and detection zone



> Simple parametering of many different resolutions on the same product



> Availability of more than 5,000 interchangeable configurations within 24 hours



> A user-friendly product at last; easy to parameter prior to installation and to modify during operation



## b Osiris™ Photo-electric sensors ..... 1/2 to 1/11

*Detection without contact of objects whatever their shape or material*

- > Detection from a few millimeters to several tens of meters
- > 3D adjustable fixing accessories
- > Specific products for particular applications

## b Osiprox™ Inductive proximity sensors ..... 1/12 to 1/22

*Detection without contact of metal objects*

- > Sensor / object distance - 60 mm
- > Generic cylindrical and flat form products
- > Specific products for particular applications

## b Osiprox Capacitive proximity sensors ..... 1/23

## b Osiprox Ultrasonic sensors ..... 1/24 to 1/33

*Detection without contact of any object of any material*

- > Detection from a few millimeters up to 8 meters
- > Extra large range to ensure finding the right product
- > Specific products for particular applications

## b Osiswitch™ Limit switches ..... 1/34 to 1/39

*Detection by contact of rigid objects*

- > Positive opening operation of electrical contacts
- > Object speed - 1.5 m/s
- > Specific products for particular applications

## b Nautilus Sensors for pressure control ..... 1/40 to 1/41

*Detection by contact with fluid*

- > Electronic pressure and vacuum switches
- > Analog pressure sensors
- > Electromechanical pressure and vacuum switches

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**Osiconcept®**  
Offering simplicity through innovation

**A single product that automatically adapts to all conditions.**

Programmable NO / NC  
NO: object present = output ON  
NC: no object present = output ON



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		Design 18 plastic	Design 18 metal
<b>Usable sensing distance</b>	Diffuse	0.3 m	0.3 m
	Diffuse with background supp.	0.12 m	0.12 m
	Polarized retroreflective	2 m	2 m
	Thru-beam	15 m	15 m
<b>Mounting (mm)</b>		M18 x 1	M18 x 1
<b>Case M (metal) P (plastic) / Dimensions (mm) Ø x L or W x H x D</b>		P / M18 x 64	M / M18 x 64
<b>Common characteristics</b>		Adjustment of sensing distance: <b>using teach mode</b> / Setting-up assistance LEDs (⊗): yes / Temperature	

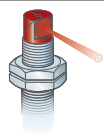
### Sensors for DC applications (solid-state output: transistor)

<b>Connection</b>		<b>Pre-cabled, PvR (2 m)</b>	
T / R 3-wire	PNP programmable NO / NC	XUB0APSNL2	XUB0BPSNL2
	NPN programmable NO / NC	XUB0ANSNL2	XUB0BNSNL2
	PNP / NPN programmable NO / NC	–	–
<b>Connection</b>		<b>M12 connector</b>	
T / R 3-wire	PNP programmable NO / NC	XUB0APSNM12	XUB0BPSNM12
	NPN programmable NO / NC	XUB0ANSNM12	XUB0BNSNM12
	PNP / NPN programmable NO / NC	–	–
<b>Connection</b>		<b>Screw terminals</b>	
T / R 3-wire	PNP / NPN programmable NO / NC	–	–
<b>Switching capacity (mA) main output / alarm output</b>		100 / –	100 / –
<b>Common characteristics</b>		Supply voltage limits, min/max (V) including ripple: 10 - 36 (except XUM 10 - 30) / Switching	
<b>Thru-beam transmitter</b>	pre-cabled (2 m)	XUB0AKSNL2T	XUB0BKSNL2T
	connector	XUB0AKSNM12T	XUB0BKSNM12T
	screw terminals, ISO 16 cable gland	–	–

### Multi-current/multi-voltage sensors for AC/DC applications 10 - 36 V DC / 20 - 264 V AC including ripple on DC (relay output, 1 C/O, 3 A)

<b>Connection</b>		<b>Pre-cabled, PvR (2 m)</b>	
T / R	programmable, NO/NC with time delay	–	–
<b>Connection</b>		<b>Screw terminals</b>	
T / R	programmable, NO/NC with time delay	–	–
<b>LED output state indicator (⊗) / power on LED (⊗)</b>		–	–
<b>Switching frequency (Hz)</b>		–	–
<b>Time delay(s)</b>		–	–
<b>Thru-beam accessory</b>	pre-cabled, PUR (2 m)	–	–
	screw terminals, ISO 16 cable gland	–	–

Also available in Design 18 metal, 2-wire type multi-current/multi-voltage AC/DC version. Please refer to [www.SESensors.com](http://www.SESensors.com)



#### 90° head

All the above Osiris Design 18 sensors are available with an integral 90° head. To order, replace the letter "N" in the reference by "W".  
Example: For pre-cabled versions: XUB0APSNL2 becomes XUB0APSWL2.  
For connector versions: XUB0APSNM12 becomes XUB0APSWM12.  
*Sensing distances: refer to [www.SESensors.com](http://www.SESensors.com)*

## Accessories

Reflectors			3D fixings with ball joint																		
XUZC24	XUZC80	XUZC50		for XUB... XUZB2003 XUM... XUZM2003 XUK... XUZK2003 XUX... XUZX2003	for XUM... XUZM2004 XUK... XUZK2004 XUX... XUZX2004	XUZ2001															
<table border="1"> <thead> <tr> <th colspan="2">Reflectors (mm)</th> </tr> </thead> <tbody> <tr> <td>Ø 21</td> <td>XUZC21</td> </tr> <tr> <td>24 x 21</td> <td>XUZC24</td> </tr> <tr> <td>Ø 31</td> <td>XUZC31</td> </tr> <tr> <td>Ø 39</td> <td>XUZC39</td> </tr> <tr> <td>Ø 80</td> <td>XUZC80</td> </tr> <tr> <td>50 x 50</td> <td>XUZC50</td> </tr> <tr> <td>100 x 100</td> <td>XUZC100</td> </tr> </tbody> </table>			Reflectors (mm)		Ø 21	XUZC21	24 x 21	XUZC24	Ø 31	XUZC31	Ø 39	XUZC39	Ø 80	XUZC80	50 x 50	XUZC50	100 x 100	XUZC100			
Reflectors (mm)																					
Ø 21	XUZC21																				
24 x 21	XUZC24																				
Ø 31	XUZC31																				
Ø 39	XUZC39																				
Ø 80	XUZC80																				
50 x 50	XUZC50																				
100 x 100	XUZC100																				



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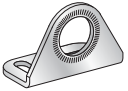
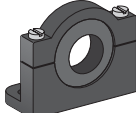


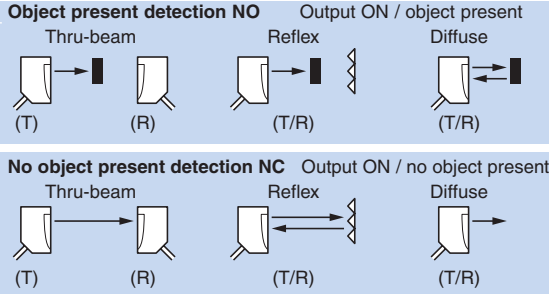
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Miniature design	Compact design 50 x 50	Compact design	PhotoVirtu
0.4 m	1.0 m	2 m	0.3 m
0.10 m	0.3 m	1.3 m	0.12 m
3 m	4 m	11 m	2 m
14 m	30 m	40 m	15 m
direct: centers 25.5, M3 screws	direct: centers 40 x 40, M4 screws	direct: centers 30/38 to 40/50/74, M5 screws	M18 x 1 or direct: centers 24.1, M3 screws
P / 12 x 34 x 20	P / 18 x 50 x 50	P / 30 x 92 x 71	P / 65 x 44 x 18
range (°C): - 25 to + 55 / Degree of protection (conforming to IEC 60529): IP65, IP67 (XUK: IP65)			

XUM0APSAL2	-	-	-
XUM0ANSAL2	-	-	-
-	XUK0AKSAL2	-	-
<b>M8 connector</b>	<b>M12 connector</b>		<b>M12 connector</b>
XUM0APSAM8	-	-	XUN0APSNM12
XUM0ANSAM8	-	-	XUN0ANSNM12
-	XUK0AKSAM12	XUX0AKSAM12	-
-	-	XUX0AKSAT16	-
100 / 50	100 / 50	100 / 100	-
frequency (Hz): 250 / Overload and short-circuit protection (★) / LED output state indicator (⊗): yes / power on LED (⊗): yes			
XUM0AKSAL2T	XUK0AKSAL2T	-	-
XUM0AKSAM8T	XUK0AKSAM12T	XUX0AKSAM12T	-
-	-	XUX0AKSAT16T	-

-	XUK0ARCTL2	-	-
-	-	XUX0ARCTT16	-
-	⊗ / ⊗	⊗ / ⊗	-
-	20	20	-
-	Adjustment from 0 to 15 s, on energization, on de-energization or monostable		
-	XUK0ARCTL2T	-	-
-	-	XUX0ARCTT16T	-

Simple fixings			Suitable female plug-in connectors, including pre-wired versions		
Fixing support for M12 rod    XUZ2003	Single bracket		length 2 m without LED	pre-wired, 90°	pre-wired, straight
	 for standard	 with ball joint			
	XUB...	XUZA118 (stnls. steel)	XUZA218 (plastic)		
	XUM...	XUZA50	-		
	XUK...	XUZA51	-		
	XUX...	XUZX2000	-		
	M8	XSZCS151			XSZCS141
	M12	XSZCD111Y			XSZCD101Y



		Design 18 plastic	Design 18 metal
Usable sensing distance	Diffuse	0.6 m	0.6 m
	Polarized reflex	2 m	2 m
	Reflex	4 m	4 m
	Thru-beam	15 m	15 m
Mounting (mm)		M18 x 1	M18 x 1
Case M (metal) P (plastic) / Dimensions (mm) Ø x L or W x H x D		P / M18 x 46	M / M18 x 46
Setting-up assistance LEDs ☉		-	-
Common characteristics		Temperature range (°C): - 25 to + 55 / Degree of protection (conforming to IEC 60529): IP65, IP67 (XUK: IP65)	

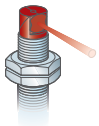
### Sensors for DC applications (solid-state output: transistor)

Connection		Pre-cabled, PvR, L = 2 m	M12 connector	Pre-cabled, PvR, L = 2 m	M12 connector
<b>Transmitter</b>		XUB2AKSNL2T	XUB2AKSNM12T	XUB2BKSNL2T	XUB2BKSNM12T
<b>Receiver or T/R, 3-wire PNP (1)</b>	Diffuse, adjustable (2)	NO	XUB5APANL2	XUB5APANM12	XUB5BPANL2
		NC	XUB5APBNL2	XUB5APBNM12	XUB5BPBNL2
	Polarized reflex	NO	XUB9APANL2	XUB9APANM12	XUB9BPANL2
		NC	XUB9APBNL2	XUB9APBNM12	XUB9BPBNL2
	Reflex	NO	XUB1APANL2	XUB1APANM12	XUB1BPANL2
		NC	XUB1APBNL2	XUB1APBNM12	XUB1BPBNL2
	Thru-beam receiver	NO	XUB2APANL2R	XUB2APANM12R	XUB2BPANL2R
		NC	XUB2APBNL2R	XUB2APB NM12R	XUB2BPBNL2R
Supply voltage limits, min/max (V) including ripple		10 - 36	10 - 36	10 - 36	10 - 36
Switching frequency (Hz)		500	500	500	500
Common characteristics for DC versions		Switching capacity, max (mA): 100 / Overload and short-circuit protection (★) / LED output state			

### Multi-current/multi-voltage sensors for AC/DC applications 10 - 36 V DC / 20 - 264 V AC including ripple on DC (relay output, 1 C/O, 3 A)

Connection				
<b>Transmitter</b>		-	-	-
<b>Receiver or T/R</b>	Diffuse	NO + NC	-	-
	Polarized reflex	NO + NC	-	-
	Reflex	NO + NC	-	-
	Thru-beam	NO + NC	-	-
Switching frequency (Hz)		-	-	-
LED output state indicator (☉) / power on LED (☉)		-	-	-

Also available in Design 18 metal, 2-wire type multi-current/multi-voltage AC/DC version. Please refer to [www.SESensors.com](http://www.SESensors.com)



#### 90° head

All the above Osiris Design 18 sensors are available with an integral 90° head. To order, replace the letter "N" in the reference by "W".  
 Example: For pre-cabled versions: XUB5APSNL2 becomes XUB5APSWL2.  
 For connector versions: XUB5APSNM12 becomes XUB5APSWM12.  
 Sensing distances: refer to [www.SESensors.com](http://www.SESensors.com)

## Accessories

Reflectors		3D fixings with ball joint	
	XUZC24		Bracket with ball joint for sensors and reflector XUZC50
	XUZC80		for XUB... XUZB2003
	XUZC50		XUM... XUZM2003
			XUK... XUZK2003
			XUX... XUZX2003
			Protective housing with ball joint
			for XUM... XUZM2004
			XUK... XUZK2004
			XUX... XUZX2004
			M12 rod for ball joint
			XUZ2001





Miniature design	Compact design 50 x 50	Compact design	PhotoVirtu
0.4 m	1 m DC or AC	2.1 m	0.1 m / 0.6 m
2 m	5 m DC or 4 m AC	11 m	2 m
4 m	9 m DC or 17 m AC	14 m	–
8 m	30 m DC or 20 m AC	40 m	15 m
direct: fixing centers 25.5, M3 screws P / 12 x 34 x 27	direct: fixing centers 40 x 40, M4 screws P / 18 x 50 x 50	direct: fixing centers 30/38 to 40/50/74, M5 screws P / 30 x 92 x 71	M18 x 1 or direct: centers 24.1, M3 screws P / 65 x 44 x 18
⊗	⊗	⊗	–
/ LED output state indicator and power on LED (⊗): yes			

Pre-cabled, PvR, L = 2 m	M8 connector	Pre-cabled, PvR, L = 2 m	M12 connector	Screw trmls., ISO 16 cbl.gland	M12 connector	M12 connector
XUM2AKSNL2T	XUM2AKSNM8T	XUK2AKSNL2T	XUK2AKSNM12T	XUX0AKSAT16T	XUX0AKSAM12T	XUN0AK5NM12T
XUM5APANL2	XUM5APANM8	XUK5APANL2	XUK5APANM12	XUX5APANT16	XUX5APANM12	XUN4APANM12 (3)
XUM5APBNL2	XUM5APBNM8	XUK5APBNL2	XUK5APBNM12	XUX5APBNT16	XUX5APBNM12	XUN4APBNM12 (3)
XUM9APANL2	XUM9APANM8	XUK9APANL2	XUK9APANM12	XUX9APANT16	XUX9APANM12	XUN9APANM12
XUM9APBNL2	XUM9APBNM8	XUK9APBNL2	XUK9APBNM12	XUX9APBNT16	XUX9APBNM12	XUN9APBNM12
XUM1APANL2	XUM1APANM8	XUK1APANL2	XUK1APANM12	XUX1APANT16	XUX1APANM12	–
XUM1APBNL2	XUM1APBNM8	XUK1APBNL2	XUK1APBNM12	XUX1APBNT16	XUX1APBNM12	–
XUM2APANL2R	XUM2APANM8R	XUK2APANL2R	XUK2APANM12R	XUX2APANT16R	XUX2APANM12R	–
XUM2APBNL2R	XUM2APBNM8R	XUK2APBNL2R	XUK2APBNM12R	XUX2APBNT16R	XUX2APBNM12R	–
10 - 30	10 - 30	10 - 30	10 - 30	10 - 36	10 - 36	10 - 36
500	500	500	500	500	500	500
indicator (⊗): yes / power on LED (⊗): yes						

–	–	Pre-cabled, L = 2 m	–	Screw trmls., ISO 16 cbl.gland	–	–
–	–	XUK2ARCNL2T	–	XUX0ARCTT16T	–	–
–	–	XUK5ARCNL2	–	XUX5ARCNT16	–	–
–	–	XUK9ARCNL2	–	XUX9ARCNT16	–	–
–	–	XUK1ARCNL2	–	XUX1ARCNT16	–	–
–	–	XUK2ARCNL2R	–	XUX2ARCNT16R	–	–
–	–	20	–	20	–	–
–	–	⊗ / ⊗	–	⊗ / ⊗	–	–

- (1) For versions with NPN output, replace "P" by "N". Example: XUB1APANL2 becomes XUB1ANANL2
- (2) XUN model is not adjustable
- (3) For versions with 0.6 m (2') sensing distance, replace "4" by "5". Example: XUN4APANM12 becomes XUN5APANM12

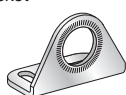
### Simple fixings

Fixing support for M12 rod



XUZ2003

Single bracket



for	standard	with ball joint
XUB...	XUZA118 (stnls. steel)	XUZA218 (plastic)
XUM...	XUZA50	–
XUK...	XUZA51	–
XUX...	XUZX2000	–

### Suitable female plug-in connectors, including pre-wired versions

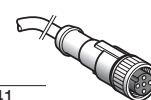
length 2 m without LED

pre-wired, 90°

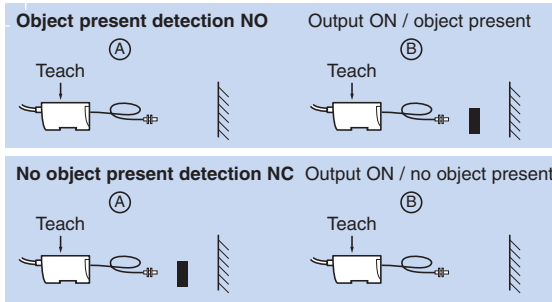
pre-wired, straight

M8  
M12

XSZCS151  
XSZCD111Y



XSZCS141  
XSZCD101Y



(1) Suitable for use with XUFZ01 and XUFZ02

	Optimum	Universal
System	For plastic fibers	
Max / usable sensing distance (mm)	Depending on fiber	
Mounting (mm)	DIN rail or direct: fixing centers 25, M3 screws	
Dimensions (mm) H x W x D	40 x 10 x 65	
Case: P (plastic)	P	
Sensitivity adjustment	Using teach mode	
Setting-up assistance LEDs ☉	☉	☉ and 4-digit display
Temperature range (°C)	- 10 to + 55	
Degree of protection (conforming to IEC 60529)	IP65 with Ø 1 fiber / IP64 with Ø 0.5 fiber	

System
Sensing distance (mm)
Fiber cross-section
Fiber Ø (mm)
Sheath Ø
Temperature range (°C)
References
Mounting

(2) With XUFZ04 fixing clamp with lens  
(3) Depending on length and lens fixing clamps

## Sensors for DC applications (solid-state output: transistor)

Connection				Pre-cabled, PVC (2 m)	
References	3-wire PNP	programmable	NO / NC	XUDA1PSML2	XUDA2PSML2
Amplifier	3-wire NPN	programmable	NO / NC	XUDA1NSML2	XUDA2NSML2
Connection				<b>M8 connector</b>	
References	3-wire PNP	programmable	NO / NC	XUDA1PSMM8	XUDA2PSMM8
Amplifier	3-wire NPN	programmable	NO / NC	XUDA1NSMM8	XUDA2NSMM8
Supply voltage limits, min/max (V) including ripple				10.8 - 26.4	
Switching capacity (mA) main output				100	
Alarm output (switching capacity mA)				-	50
Overload and short-circuit protection (★)				★	★
LED output state indicator (☉)				☉	☉
Switching frequency (Hz)				1000	1000 (standard mode) 5000 (fast mode). Sensing distance halved in fast mode
Programmable timer				-	40 ms on beam break
Anti-interference				-	in standard mode

(1) Suitable for use with XUFZ01 and XUFZ02

System
Sensing distance (mm)
Fiber cross-section
Fiber Ø (mm)
Sheath Ø
Temperature range (°C)
References
Mounting

## Accessories

### Suitable female pre-wired plug-in connectors for use with amplifier XUD - M8

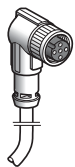


Fig. 1

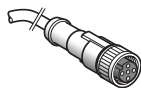


Fig. 2

	length 2 m
90° Elbowed, fig. 1	XSZCS151
Straight, fig. 2	XSZCS141

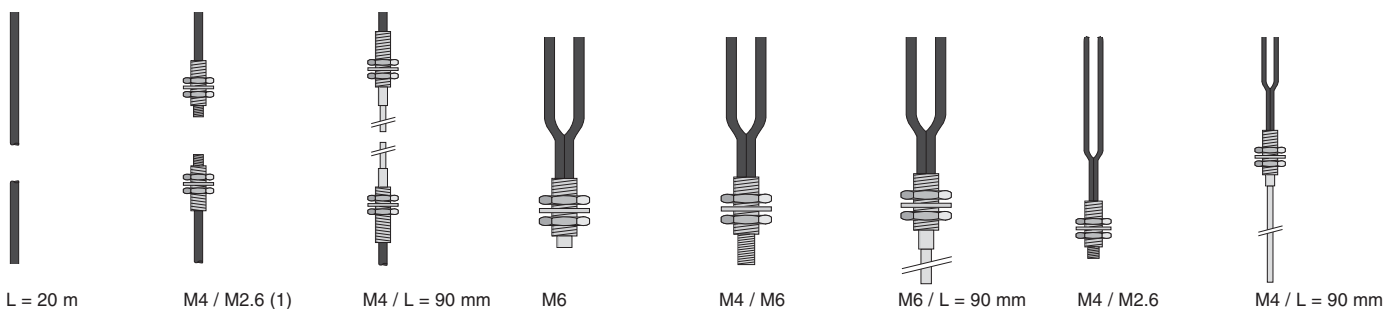
For thru-beam system plastic fiber optics		
Lenses	For increasing sensing distance (pair)	XUFZ01
	With 90° mirror (pair)	XUFZ02
Fixing clamp with lens (set of 2)	Front screw fixing for fiber optics XUFZ920	XUFZ04

For all system plastic fiber optics		
Fiber trimmer	For trimming fibers to length (included with all fiber optics)	XUFZ11
Protective metal tubing	Length 1 m, for plastic fibers with threaded end fittings	
	For M4 thread	XUFZ210
	For M6 thread	XUFZ310

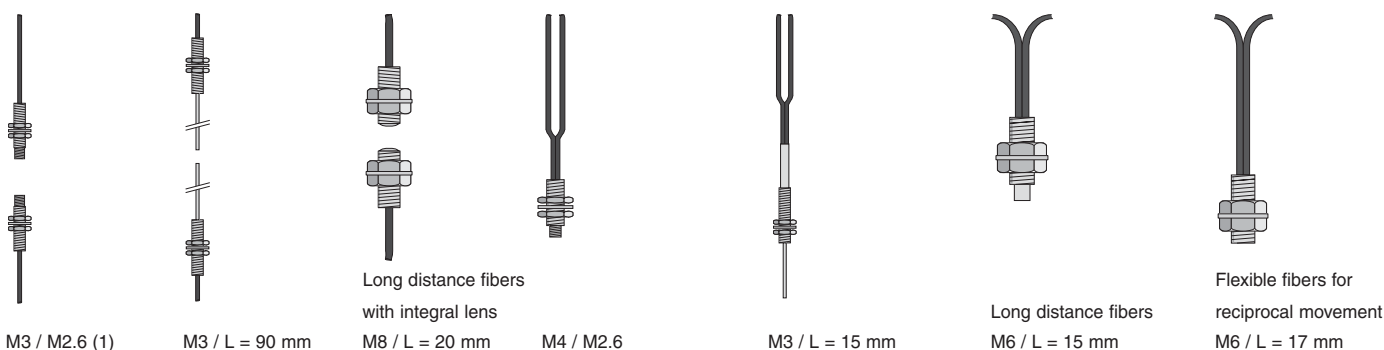
(1) Suitable for use with XUFZ01 and XUFZ02

System
Sensing distance (mm)
Fiber cross-section
Fiber Ø (mm)
Sheath Ø
Temperature range (°C)
References
Mounting

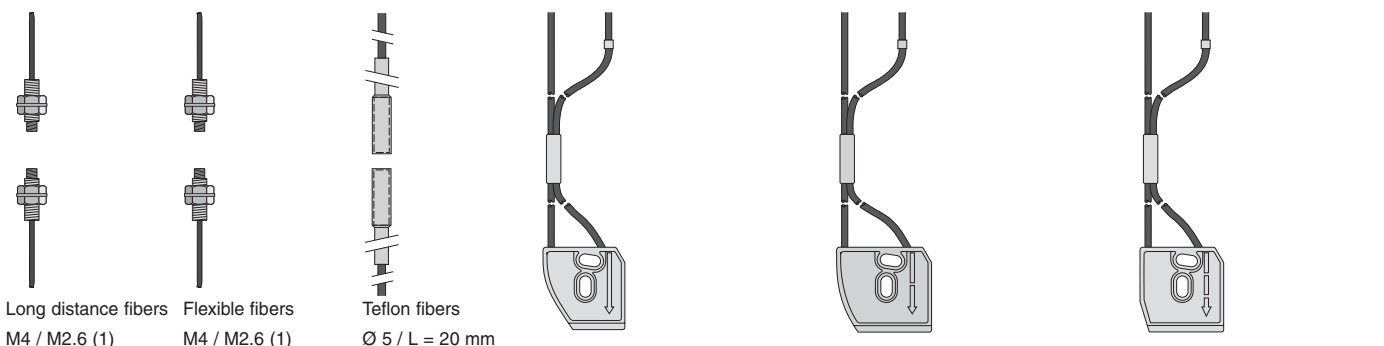
## Plastic fiber optic light guides (length 2 m)



Thru-beam			Diffuse				
250 to 900 (3)	200 or 1500 (1)	180	70	60	60	15	18
Ø 1	Ø 1	Ø 1	Ø 1	Ø 1+16 Ø 0.265	Ø 1	Ø 0.5 + 4 Ø 0.23	Ø 0.5
Ø 2.2	Ø 2.2	Ø 2.2	Ø 2.2 x 2	Ø 2.2 x 2	Ø 2.2 x 2	Ø 1 x 2	Ø 1 x 2
- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60
XUFZ920	XUFN12301	XUFN12311	XUFN05321	XUFN05323	XUFN05331	XUFN02323	XUFN01331
(2)	M4 x 0.7	M4 x 0.7	M6 x 0.75	M6 x 0.75 / M4 x 0.7	M6 x 0.75	M4 x 0.7	M4 x 0.7



Thru-beam			Diffuse			
50 or 1000 (1)	30	2500	18	6	95	55
Ø 0.5	Ø 0.5	Ø 1	Ø 0.5	Ø 0.265	Ø 1.5	Ø 1
Ø 1	Ø 1	Ø 2.2	Ø 1 x 2	Ø 1 x 2	Ø 2.2 x 2	Ø 2.2 x 2
- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60	- 25 to + 60
XUFN35301	XUFN35311	XUFN2L01L2	XUFN01321	XUFN04331	XUFN5P01L2	XUFN5S01L2
M3 x 0.5	M3 x 0.5	M8 x 1.25	M4 x 0.7	M3 x 0.5	M6 x 0.75	M6 x 0.75



Thru-beam			Diffuse focused for full color sensor XURC4			
300 or 2000 (1)	100 or 750 (1)	1000	10	20	30	
Ø 1.5	Ø 1	Ø 1	Transmitter Ø 1 Receiver Ø 1.5	Transmitter Ø 1.5 Receiver Ø 1.5	Transmitter and Receiver Ø 1.5	
Ø 2.2	Ø 2.2	Ø 2.2	Ø 2.2 x 2	Ø 2.2 x 2	Ø 2.2 x 2	
- 25 to + 60	- 25 to + 60	- 25 to + 60	- 10 to + 55	- 10 to + 55	- 10 to + 55	
XUFN2P01L2	XUFN2S01L2	XUFN2T01L2	XUFN5L01L2	XUFN5L02L2	XUFN5L03L2	
M2.6 x 0.45 / M4 x 0.7	M2.6 x 0.45 / M4 x 0.7	by clip (included)	2 elongated holes Ø 3.2 x 6.7 for M3 screws / fixing centers = 9.8 mm			



## Photo-electric sensors - Application Packaging series



	Contrast sensors - color mark			Luminescence sensors
	Diffuse	Diffuse (manual)	Diffuse (with teach mode)	Diffuse (manual)
Usable sensing distance	0.019 m	0.009 m (1)	0.009 m (1)	0.02 m
Mounting (mm)	direct: ctrs. 40 x 40	direct: 21 x 28, M5 screws	direct: 21 x 28, M5 screws	M18 x 1
Sensitivity adjustment potentiometer	with teach mode button		with teach mode button	
Case M (metal) P (plastic) / Setting-up assistance LEDs	P /	M /	M /	M /
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 10 to + 55 / IP65	- 10 to + 55 / IP67	- 10 to + 55 / IP67	- 25 to + 55 / IP67
Dimensions (mm) Ø x L or H x W x D	50 x 15 x 50	100 x 30 x 62.5	96 x 31 x 64	Ø18 x 95

### Sensors for DC applications (solid-state output: transistor)

Connection	M12 connector	M12 connector	M12 connector	M12 connector
Transmitter / Receiver	3-wire PNP NO function	XURK1PSMM12	-	XU5M18U1D
	3-wire NPN NO function	XURK1NSMM12	-	-
	3-wire PNP / NPN programmable NO / NC	-	XURK0955D	XURK1KSMM12
Supply voltage limits, min/max (V) including ripple	10 - 30	10 - 30	10 - 30	10 - 30
Switching capacity, max (mA) / Switching frequency (Hz)	100 / 5000	200 / 10000	200 / 10000	100 / 1000
Overload and short-circuit protection (★) / LED output state indicator (⊗)	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(1) 0.007 m with XURZ02; 0.018 m with XURZ01

### Packaging series (continued)



	Detection of transparent materials		Objects on conveyor	Optical frames for detection of passage of objects
	Reflex (reflector not included)	Reflex (with teach mode) (50 x 50 reflector included)	Diffuse with adjustable b/ground suppression	Thru-beam
Usable sensing distance	0.8 m (2)	1.5 m	1 m	200 x 120 mm passageway (3)
Mounting (mm)	M18 x 1	direct: ctrs. 40 x 40	direct: ctrs. 40 x 40	direct: 222.5, M5 screws
Sensitivity adjustment potentiometer		with teach mode button		
Case M (metal) P (plastic) / Setting-up assistance LEDs	P / -	P /	P /	M /
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	+ 10 to + 55 / IP67	- 25 to + 55 / IP65	- 25 to + 55 / IP65	0 to + 60 / IP65
Dimensions (mm) Ø x L or H x W x L	Ø18 x 55	50 x 18 x 80	50 x 18 x 50	205 x 25 x 230

### Sensors for DC applications (solid-state output: transistor)

Connection	Pre-cabled, PVC (2 m)	Pre-cabled, PVC (2 m)	Pre-cabled, PVC (2 m)	-
Transmitter / Receiver	3-wire PNP NO function	-	-	-
	3-wire NPN NO function	-	-	-
	3-wire PNP programmable NO / NC	XUBH01353	-	-
	3-wire NPN programmable NO / NC	XUBJ01353	-	-
	3-wire PNP / NPN programmable NO / NC	-	XUKT1KSML2	XUK8AKSNL2
Connection	M12 connector	M12 connector	M12 connector	M12 connector
	3-wire PNP programmable NO / NC	XUBH01353D	-	-
	3-wire NPN programmable NO / NC	XUBJ01353D	-	-
3-wire PNP / NPN programmable NO / NC	-	XUKT1KSMM12	XUK8AKSNM12	XUVF120M12
Supply voltage limits, min/max (V) including ripple	10 - 30	10 - 30	10 - 30	18 - 30
Switching capacity, max (mA) / Switching frequency (Hz)	100 / 500	100 / 1500	100 / 250	400 / 500
Overload and short-circuit protection (★) / LED output state indicator (⊗)	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(2) With 50 x 50 mm reflector; 0.6 m with 24 x 21 mm reflector

(3) Different passageway sizes; 200 x 180: XUVF180M12, 200 x 250: XUVF250M12 and "U" form models available.

### Accessories

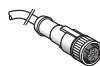
#### Suitable female plug-in connectors, including pre-wired versions

length 2 m without LED  
M8 (or S)  
M12 (or D)  
U20 (or K)

pre-wired, 90°  
XSZCS101  
XSZD111Y  
XSZK101Y



pre-wired, straight  
XSZCS111  
XSZCD101Y  
XSZCK111Y



#### Lenses for color mark or luminescence detection

Lens for doubling sensing distance



Ring for fixed focusing





	Color sensors			Forked, for detection of opaque labels	Detection of aqueous liquids
	Diffuse	Diffuse (with integral amplifier)	Thru-beam or diffuse (4)	Thru-beam infrared	Thru-beam water detector
<b>0.009 m</b> (1)	<b>0.02 m</b>	<b>0.040 - 0.060 m</b>	<b>0.005 - 0.25 m</b> (4)	<b>0.002 m</b>	<b>0.2 m</b> (5)
direct: ctrs. 28, M5 screws	direct: centers 40 x 40	direct: ctrs. 68x42, M5 screws	on rail, centers 16	direct: centers 18	direct: centers 20
with teach mode button	with teach mode button	with teach mode button	with teach mode button	with teach mode button	
M / ⊗	P / ⊗	M / ⊗	M / ⊗	M / ⊗	P / ⊗
- 10 to + 55 / IP67	- 10 to + 55 / IP65	- 10 to + 55 / IP67	- 10 to + 55 / IP65	0 to + 55 / IP65	0 to + 40 / IP65
96 x 31 x 64	50 x 25 x 50	80 x 30 x 57	82 x 25 x 44	97 x 20 x 26	47 x 13 x 33

M12 connector	M12 connector	Pre-cabled (2 m)	Pre-cabled (2 m)	M8 connector	Pre-cabled (2 m)
-	XUKC1PSMM12	XURC3PPML2	XURC4PPML2	-	-
-	XUKC1NSMM12	XURC3NPML2	XURC4NPML2	-	-
XURU1KSMM12	-	-	-	XUVK0252S	XUMW1KSNL2
10 - 30	10 - 30	10 - 30	10 - 30	10 - 30	10.8 - 26.4
200 / 2000	100 / 1500	100 / 1200	100 / 1200	100 / 10000	100 / 1000
★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(4) Depending on fibers selected, see table below

(5) Nominal sensing distance 10 m. Use between 10 and 20 cm depending on application

## Materials handling series



Forked with integral amplifier for indexing

Analog output  
Position control

Laser class II  
Very long sensing distance or accurate sensing

High excess gain for resistance to accumulated dirt

## Food and beverage processing series (1)

Stainless steel version for resistance to harsh agents

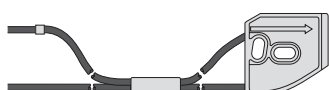
Thru-beam	Diffuse	Thru-beam laser	Thru-beam	Polarised reflex	Diffuse
<b>0.03 m</b>	<b>0.20 - 0.80 m</b>	<b>100 m</b>	<b>50 m</b>	<b>2 m</b>	<b>0.10 m</b>
centers 47	ctrs: 30 - 11P cable gland	M18 x 1	M18 x 1	M18 x 1	M18 x 1
-	-			-	-
P / -	P / ⊗	P / ⊗	M / ⊗	M (stainless steel) / -	M (stainless steel) / -
- 5 to + 55 / IP54	- 25 to + 60 / IP67	- 10 to + 45 / IP67	- 25 to + 55 / IP67	- 25 to + 55 / IP67	- 25 to + 55 / IP67
-	86 x 27 x 83	Ø18 x 76	M18 x 95	-	-

Pre-cabled, PvR (2 m)	Screw terminals	-	-	Pre-cabled (2 m)	Pre-cabled (2 m)
XUVH0312	-	-	-	-	-
XUVJ0312	-	-	-	-	-
-	-	-	-	XU9N18PP341	XU5N18PP341
-	-	-	-	XU9N18NP341	XU5N18NP341
-	XUJK803538 (2)	-	-	-	-
-	-	<b>M12 connector</b>	<b>M12 connector</b>	<b>M12 connector</b>	<b>M12 connector</b>
-	-	XU2P18PP340DL	XU2M18AP20D (7)	XU9N18PP341D	XU5N18PP341D
-	-	XU2P18NP340DL	-	XU9N18NP341D	XU5N18NP341D
-	-	-	-	-	-
19 - 38	20 - 30	10 - 30	10 - 30	10 - 30	10 - 30
150 / 1000	max: 20, min: 4 / 10000	100 / 500	100 / 30	100 / 500	100 / 500
★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(6) Thru-beam system also available

(7) With 4 - 20 mA analog output

## Fiber optic light guides for use with full color sensor XURC4...



Fiber type	System	Reference	Sensing dist.	Fiber type	System	Reference	Sensing dist.	
<b>Focused</b>	Diffuse	XUFN5L01L2	10 mm	<b>Standard</b>	Diffuse	XUFN05321	5 mm	
		XUFN5L02L2	20 mm			Thru-beam (color detection by transparency)	XUFN12301 + XUFZ01	250 m
		XUFN5L03L2	30 mm					

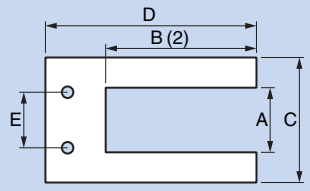


Forks

	Thru-beam	Thru-beam	Thru-beam laser
<b>Usable sensing distance</b>	2 - 120 mm	2 - 120 mm	2 - 120 mm
Mounting (mm)	(see column E below)		
Sensitivity adjustment	potentiometer, 25 turn	teach button	
Case M (metal) P (plastic) / Setting-up assistance LEDs ☉	M / ☉		
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25 to + 60 / IP65		
Dimensions (mm) L x H	(see columns C and D below)		

### Sensors for DC applications (solid-state output: transistor)

Connection	M8 connector (1)	M8 connector	M8 connector
<b>Type of output</b>	3-wire PNP/NPN programmable NO / NC		
Dimensions (mm) 3 choices of depth B (2)	A B C D E	A B C D E	A B C D E
<b>Transmitter / Receiver</b>	XUYF953002COS 2 40 40 60 14	XUYFANEP40002 2 42 32 57 14	XUYFALNEP40002 2 42 41 57 14
	XUYF954002COS 2 40 37 60 14	XUYFANEP40005 5 42 35 57 14	XUYFALNEP40005 5 42 44 57 14
	XUYF954015COS 15 40 50 60 27	XUYFANEP40015 15 42 45 57 27	XUYFALNEP40015 15 42 54 57 27
	XUYF954030COS 30 40 65 60 42	XUYFANEP40030 30 42 60 57 42	XUYFALNEP40030 30 42 69 57 42
	XUYF954050COS 50 57 85 77 40	XUYFANEP40050 50 42 80 57 40	XUYFALNEP40050 50 42 89 57 40
	XUYF954080COS 80 57 115 77 70	XUYFANEP40080 80 42 110 57 70	XUYFALNEP40080 80 42 119 57 70
	XUYF954120COS 120 57 155 77 110	XUYFANEP40120 120 42 150 57 110	XUYFALNEP40120 120 42 159 57 110
Supply voltage limits, min/max (V) including ripple	10 - 30	10 - 30	10 - 30
Switching capacity, max (mA) / Switching frequency (Hz)	100/500 Hz (10 kHz for XUYF953002COS)	100/10 kHz	100/10 kHz
Overload and short-circuit protection (★) / LED output state indicator (☉)	★ / ☉	★ / ☉	★ / ☉



- (1) For pre-cabled (L = 2 m) version, delete CO from the reference. Ex: XUYF953002COS becomes XUYF953002S
- (2) For B = 59 mm, replace the first number 4 in the reference by 6  
For B = 95 mm, replace the first number 4 in the reference by 10  
Ex: for B = 59 mm: XUYFANEP40002 becomes XUYFANEP60002



Sensors with plastic fiber optics

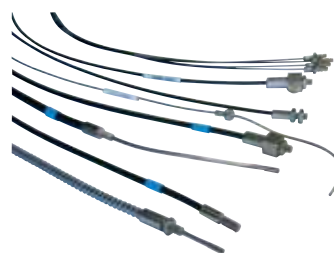
	Light sensor	Color sensor, 1 or 4 colors	Contrast sensor
<b>Usable sensing distance</b>	dpg. on fiber & end fitting	2 - 60 mm	18 mm
Mounting (mm)	DIN rail	51 x 115	DIN rail
Sensitivity adjustment	potentiometer, numerical +/-	teach button	teach button
Case M (metal) P (plastic) / Setting-up assistance LEDs ☉	P / ☉	P / ☉	P / ☉
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	0 to + 60 / IP65	0 to + 40 / IP65	0 to + 40 / IP65
Dimensions (mm) L x H	13 x 60	61 x 125	13 x 60

### Sensors for DC applications (solid-state output: transistor)

Connection	M8 connector	2 x M12 connectors (included)	M8 connector
<b>Type of output</b>	PNP NO function	-	-
	NPN NO function	-	XUYDCFCO966S
	PNP/NPN Programmable NO / NC	XUYALCO966S	-
	-	XUYLC2001 (1 color) XUYLC2004 (4 colors)	-
Supply voltage limits, min/max (V) including ripple	10 - 30	22 - 26	10 - 30
Switching capacity, max (mA) / Switching frequency (Hz)	100 / 5	100 / 500	100 / 20k
Overload and short-circuit protection (★) / LED output state indicator (☉)	★ / ☉	★ / ☉	★ / ☉
Suitable plastic fiber optics, to be ordered separately	Usable Ø 1 mm	Sensing distance	
	L = 10 m XUFZ910	18 mm L = 0.6 m XUYFPCF61	L = 0.6 m XUYFPDC61
	L = 20 m XUFZ920	60 mm L = 0.6 m XUYFPCP61	L = 1 m XUYFPDC101
	L = 50 m XUYA00550	18 mm L = 1 m XUYFPCF101	L = 0.6 m / M8 XUYFPDCM861
		60 mm L = 1 m XUYFPCP101	L = 1 m / M8 XUYFPDCM8101



Amplifier for fiber optics



### Diffuse or Thru-beam depending on fibers

for plastic fibers | or plastic or glass fibers

**dpg. on fibers** (80 mm for diffuse, 200 mm for thru-beam, up to 4 m using end fitting accessories)

DIN rail		LCD display	
potentiometer	potentiometer, numerical +/-	pot. num. + teach	P / ⊗ using selector/setting knob
0 to + 60	0 to + 60 / IP65	0 to + 60 / IP65 & IP67	0 to + 60 / IP40
30 x 80	13 x 60	30 x 80	45 x 100

### Glass fiber optics Length = 0.6 m (4)

	Thru-beam	Diffuse
<b>Sensing distance</b>	<b>200 mm</b>	<b>80 mm</b>
Fiber Ø	1.2 mm	1.2 mm
Temperature	PVC sheath: - 25 to + 60°C	
	spiroid metal tube: - 25 to + 120°C	
	flexible stainless steel: - 25 to + 200°C	

### with straight end fitting (5)

PVC sheath	XUYFVERSD61	XUYFVPSD61
spiroid metal tube	XUYFVERMD61	XUYFVPMD61
flexible stnls. steel	XUYFVERTD61	XUYFVPTD61

(4) Other lengths available (1 m, 1.5 m, 2 m), consult factory  
 (5) Other end fittings (side, elongated, pliable), consult factory  
 Note: Glass fibers are not suitable for use with amplifier XUYAF400A

AC	DC	DC	AC / DC	DC
<b>Screw terminals</b>	<b>M8 connector (1)</b>	<b>M8 connector (1)</b>	<b>Screw terminals</b>	<b>2 x M8 connectors</b>
Output relay, 1 C/O	3-wire PNP/NPN programmable NO / NC	Output relay, 1 C/O	PNP (3) or analog	Nmbr. Analog
30 x 80	13 x 60	13 x 60	30 x 80	45 x 100
–	XUYAFVCO966S (glass fiber)	XUYAFVCO946S (glass fiber)	XUYAFV954R (glass fiber)	XUYAFCLARY4ANSP 4 1 XUYAFCLARY3ANSP 3 1 XUYAFCLARY2ANSP 2 1 XUYAFCLARY4STSP 4 0 XUYAFCLARY3STSP 3 0 XUYAFCLARY2STSP 2 0
XUYAF400A (plastic fiber)	XUYAFPCO966S (plastic fiber)	XUYAFPCO946S (plastic fiber)	XUYAFP954R (plastic fiber)	
115/230 V AC	10 - 30	10 - 30	20 - 250 V AC/DC	10 - 30
3A/250 V / 25 Hz	100/1 kHz	100/1 kHz time delay	3A / 25 Hz time delay	100/1.1 kHz
–	★ / ⊗	★ / ⊗	– / ⊗	★ / ⊗

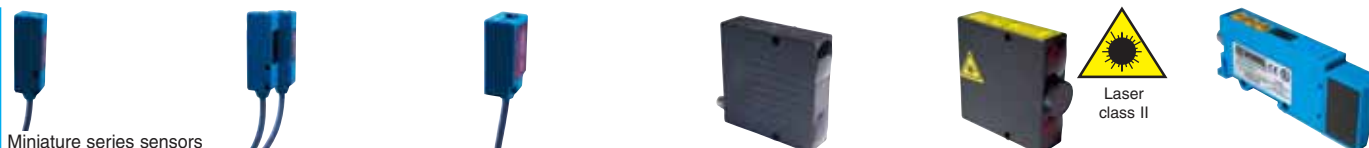
### Plastic fiber optics Length = 2 m

see the complete XUFN offer on page 7

### Plastic fiber optics for use with end fittings

Ø 1 mm fiber	L = 20 m	XUFZ920
End fitting (single) sensing dist. 70 mm		XUYA110
End fittings (pair) sensing dist. 200 mm		XUYA210
End fittings (pair) sensing dist. 800 mm		XUYA211
End fittings (pair) sensing dist. 4 m		XUYA213

(3) For NPN version, replace the last letter of the reference (P) by N



Miniature series sensors

Polarised reflex 50 x 50 reflector included	Thru-beam	Background suppression	Background suppression with 2 channels	Background suppression, LASER	Diffuse with sensing face on side
<b>1 - 1.5 m</b>	<b>4 m</b>	<b>15 - 80 mm</b>	<b>50 - 600 mm</b>	<b>50 - 300 mm</b>	<b>adjustable - 450 mm</b>
2 x Ø 3 holes / centers 9.5 potentiometer P / ⊗	3 x Ø 3 holes / centers 9.5 potentiometer P / ⊗	2 x Ø 3 holes / centers 14.5 potentiometer P / ⊗	2 x Ø 4 holes / centers 54 potentiometer P / ⊗	2 x Ø 4 holes / centers 54 potentiometer P / ⊗	DIN rail using + / - buttons P / ⊗
0 to + 50 / IP65 & IP67	0 to + 50 / IP65 & IP67	0 to + 50 / IP65 & IP67	-25 to + 60 / IP67	0 to + 50 / IP65	0 to + 60 / IP65
10 x 40	10 x 40	20 x 32	18 x 60	18 x 60	30 x 78

M8 connector (6)	M8 connector (6)	M8 connector (6)	M8 connector (6)	M8 connector	M8 connector (6)
XUYBCO989SP	XUYRCO989SP (receiver)	XUYPCO989SP	–	–	–
XUYBCO989SN	XUYRCO989SN (receiver)	XUYPCO989SN	–	–	–
–	–	–	XUYPS2CO945S	XUYPS1LCO965S	XUYPLCO966S
–	XUYECO989 (transmitter)	–	–	–	–
10 - 30					
100 / 500	100 / 500	100 / 500	100 / 370	100 / 5k	100 / 1k
★ / ⊗					

(6) For pre-cabled (L = 2 m) version, delete CO from the reference. Ex: XUYPSCO989SP becomes XUYPS989SP

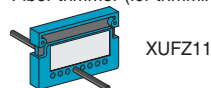
## Accessories

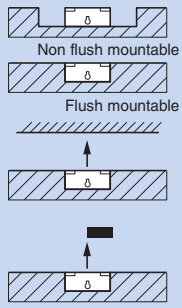
### Suitable female pre-wired plug-in connectors

2 m		M8 straight XSZCS141	M12 straight XSZCD101Y		M8 90° XSZCS151	M12 90° XSZCD111Y
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### For plastic fiber optics

Fiber trimmer (for trimming fibers to length)





**Osiconcept®**  
Offering simplicity through innovation

**A single product that automatically adapts to all installation environments.**

Accurate position detection using teach mode.

## Inductive proximity sensors Universal



	Form E 26 x 26	Form C 40 x 40	Form D 80 x 80	M12
<b>Nominal sensing distance Sn</b>	15 mm	25 mm	60 mm	5 mm
Usable sensing distance S (mm) flush mountable / non flush mountable	0 - 8 / 0 - 12	0 - 12 / 0 - 20	0 - 32 / 0 - 48	0 - 2.7 / 0 - 4
Fine adjustment zone (mm) flush mountable / non flush mountable	5 - 10 / 5 - 15	8 - 15 / 8 - 25	20 - 40 / 20 - 60	1.7 - 3.4 / 1.7 - 5
Suitability for flush mounting (metal environment)	flush mountable or non flush mountable via <b>Osiconcept</b> teach mode			
Case M (metal) P (plastic)	P	P	P	P
Temperature range (°C)	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70
Degree of protection (conforming to IEC 60529)	pre-cabled: IP68 (with connector: IP67)			IP67

### Sensors for DC applications

Connection			Pre-cabled, PvR (2 m)			
Dimensions (mm) Ø x L or W x H x D			26 x 26 x 13	40 x 40 x 15	80 x 80 x 26	M12 x 54
<b>3-wire</b>	<b>PNP</b>	<b>NO</b> function	XS8E1A1PAL2	XS8C1A1PAL2	XS8D1A1PAL2	–
		<b>NC</b> function	XS8E1A1PBL2	XS8C1A1PBL2	XS8D1A1PBL2	–
	<b>NPN</b>	<b>NO</b> function	XS8E1A1NAL2	XS8C1A1NAL2	XS8D1A1NAL2	–
		<b>NC</b> function	XS8E1A1NBL2	XS8C1A1NBL2	XS8D1A1NBL2	–
Connection			M8 connector (1)		M12 connector	
<b>3-wire</b>	<b>PNP</b>	<b>NO</b> function	XS8E1A1PAM8	XS8C1A1PAM8	XS8D1A1PAM12	XS612B2PAL01M12 (2)
		<b>NC</b> function	XS8E1A1PBM8	XS8C1A1PBM8	XS8D1A1PBM12	XS612B2PBL01M12 (2)
	<b>NPN</b>	<b>NO</b> function	XS8E1A1NAM8	XS8C1A1NAM8	XS8D1A1NAM12	XS612B2NAL01M12 (2)
		<b>NC</b> function	XS8E1A1NBM8	XS8C1A1NBM8	XS8D1A1NBM12	XS612B2NBL01M12 (2)
Supply voltage limits, min/max (V) including ripple			10 - 36	10 - 36	10 - 36	10 - 36
Switching capacity, max (mA)			100	200	200	100
Overload and short-circuit protection (★)			★	★	★	★
LED output state indicator (⊗) and power on LED (⊗)			⊗ / ⊗	⊗ / ⊗	⊗ / ⊗	⊗ / ⊗
Voltage drop, closed state (V) at I nominal			2	2	2	2
Switching frequency (Hz)			2000	1000	150	1000

### Multi-current/multi-voltage sensors for AC/DC applications

Connection			Pre-cabled, PvR (2 m)			
Dimensions (mm) Ø x L or W x H x D			26 x 26 x 13	40 x 40 x 15	80 x 80 x 26	–
<b>2-wire</b>	<b>AC/DC</b>	<b>NO</b> function	XS8E1A1MAL2	XS8C1A1MAL2	XS8D1A1MAL2	–
		<b>NC</b> function	XS8E1A1MBL2	XS8C1A1MBL2	XS8D1A1MBL2	–
Connection			1/2" 20 UNF connector			
<b>2-wire</b>	<b>AC/DC</b>	<b>NO</b> function	XS8E1A1MAL01U20	XS8C1A1MAL01U20	XS8D1A1MAU20	–
		<b>NC</b> function	XS8E1A1MBL01U20	XS8C1A1MBL01U20	XS8D1A1MBU20	–
Supply voltage limits, min/max (V) including ripple			20 - 264	20 - 264	20 - 264	–
Switching capacity, max (mA)			200 AC or DC	300 AC / 200 DC	300 AC / 200 DC	–
LED output state indicator (⊗) / power on LED (⊗)			⊗ / ⊗	⊗ / ⊗	⊗ / ⊗	–
Residual current, open state (mA)			1.5	1.5	1.5	–
Voltage drop, closed state (V) at I nominal			5.5	5.5	5.5	–
Switching frequency (Hz)			2000	1000	150	–

(1) Also available with M12 connector on 152 mm (6") pigtail. Substitute M12 for M8 in part number

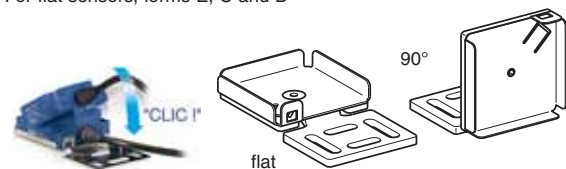
(2) Flying lead (L = 0.15 m) with end mounted remote control incorporating M12 connector

(3) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load

### Accessories

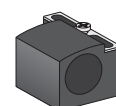
#### Fixing

For flat sensors, forms E, C and D



	flat	90°	substitution of block type sensors XSE / XSC / XSD
Form E	XSZBE00	XSZBE90	XSZBE10
Form C	XSZBC00	XSZBC90	XSZBC10
Form D	–	–	XSZBD10

Fixing clamp with indexing pin for cylindrical sensors



M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130





Osiprox<sup>®</sup>

Osiprox<sup>®</sup>



M18		M30		M8		M12		M18		M30	
9 mm		18 mm		2.5 mm		4 mm		8 mm		15 mm	
0 - 4.8 / 0 - 7.2		0 - 8.8 / 0 - 14.4		0 - 2		0 - 3.2		0 - 6.4		0 - 12	
3 - 6 / 3 - 9		6 - 11 / 6 - 18		-		-		-		-	
flush or non flush mountable		via Osiprox teach mode		flush mountable		flush mountable		flush mountable		flush mountable	
M		M		M		M		M		M	
- 25 to + 70		- 25 to + 70		- 25 to + 70		- 25 to + 70		- 25 to + 70		- 25 to + 70	
IP67				IP67		pre-cabled: IP68 (with connector: IP67)					

M18 x 67	M30 x 71	M8 x 50	M12 x 50	M18 x 60	M30 x 60
-	-	XS608B1PAL2	XS612B1PAL2	XS618B1PAL2	XS630B1PAL2
-	-	XS608B1PBL2	XS612B1PBL2	XS618B1PBL2	XS630B1PBL2
-	-	XS608B1NAL2	XS612B1NAL2	XS618B1NAL2	XS630B1NAL2
-	-	XS608B1NBL2	XS612B1NBL2	XS618B1NBL2	XS630B1NBL2

XS618B2PAL01M12 (2)	XS630B2PAL01M12 (2)	XS608B1PAM12	XS612B1PAM12	XS618B1PAM12	XS630B1PAM12
XS618B2PBL01M12 (2)	XS630B2PBL01M12 (2)	XS608B1PBM12	XS612B1PBM12	XS618B1PBM12	XS630B1PBM12
XS618B2NAL01M12 (2)	XS630B2NAL01M12 (2)	XS608B1NAM12	XS612B1NAM12	XS618B1NAM12	XS630B1NAM12
XS618B2NBL01M12 (2)	XS630B2NBL01M12 (2)	XS608B1NBM12	XS612B1NBM12	XS618B1NBM12	XS630B1NBM12
10 - 36	10 - 36	10 - 58	10 - 58	10 - 58	10 - 58
100	100	200	200	200	200
★	★	★	★	★	★
⊗ / ⊗	⊗ / ⊗	⊗ / -	⊗ / -	⊗ / -	⊗ / -
2	2	2	2	2	2
1000	1000	2500	2500	1000	500

-	-	-	M12 x 50	M18 x 60	M30 x 60
-	-	-	XS612B1MAL2	XS618B1MAL2	XS630B1MAL2
-	-	-	XS612B1MBL2	XS618B1MBL2	XS630B1MBL2

-	-	-	XS612B1MAU20	XS618B1MAU20	XS630B1MAU20
-	-	-	XS612B1MBU20	XS618B1MBU20	XS630B1MBU20
-	-	-	20 - 264	20 - 264	20 - 264
-	-	-	200	300 AC / 200 DC	300 AC / 200 DC
-	-	-	⊗ / -	⊗ / -	⊗ / -
-	-	-	1.5	1.5	1.5
-	-	-	5.5	5.5	5.5
-	-	-	25 AC / 1000 DC	25 AC / 1000 DC	25 AC / 500 DC

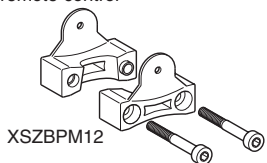
### Suitable female plug-in connectors, including pre-wired versions

For Osiprox XS6 remote control

length 2 m without LED

pre-wired, 90°

pre-wired, straight

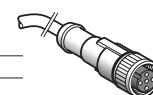


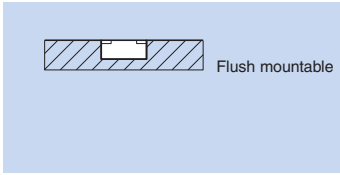
XSZBPM12

M8	XSZCS151
M12	XSZCD111Y
U20	XSZCK101Y



XSZCS141
XSZCD101Y
XSZCK111Y





	Form J 8 x 22	Form F 15 x 32	Form E 26 x 26	Form C 40 x 40
<b>Nominal sensing distance Sn</b>	2.5 mm	5 mm	10 mm	15 mm
Operating zone (mm)	0 - 2	0 - 4	0 - 8	0 - 12
Suitability for flush mounting (metal environment)	flush mountable	flush mountable	flush mountable	flush mountable
Case M (metal) P (plastic)	P	P	P	P
Temperature range (°C)	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70
Degree of protection (conforming to IEC 60529)	pre-cabled: IP68 (with connector: IP67)			

## Sensors for DC applications

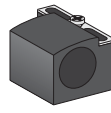
Connection			Pre-cabled, PvR (2 m)			
Dimensions (mm) Ø x L or W x H x D			8 x 22 x 8	15 x 32 x 8	26 x 26 x 13	40 x 40 x 15
<b>3-wire</b>	<b>PNP</b>	<b>NO</b> function	XS7J1A1PAL2	XS7F1A1PAL2	XS7E1A1PAL2	XS7C1A1PAL2
		<b>NC</b> function	XS7J1A1PBL2	XS7F1A1PBL2	XS7E1A1PBL2	XS7C1A1PBL2
	<b>NPN</b>	<b>NO</b> function	XS7J1A1NAL2	XS7F1A1NAL2	XS7E1A1NAL2	XS7C1A1NAL2
		<b>NC</b> function	XS7J1A1NBL2	XS7F1A1NBL2	XS7E1A1NBL2	XS7C1A1NBL2
Connection			M8 connector			
<b>3-wire</b>	<b>PNP</b>	<b>NO</b> function	XS7J1A1PAL01M8 (1)	XS7F1A1PAL01M8 (1)	XS7E1A1PAM8	XS7C1A1PAM8
		<b>NC</b> function	XS7J1A1PBL01M8 (1)	XS7F1A1PBL01M8 (1)	XS7E1A1PBM8	XS7C1A1PBM8
	<b>NPN</b>	<b>NO</b> function	XS7J1A1NAL01M8 (1)	XS7F1A1NAL01M8 (1)	XS7E1A1NAM8	XS7C1A1NAM8
		<b>NC</b> function	XS7J1A1NBL01M8 (1)	XS7F1A1NBL01M8 (1)	XS7E1A1NBM8	XS7C1A1NBM8
Supply voltage limits, min/max (V) including ripple			10 - 36	10 - 36	10 - 36	10 - 36
Switching capacity, max (mA)			100	100	100	100
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
Voltage drop, closed state (V) at I nominal			2	2	2	2
Switching frequency (Hz)			2000	2000	1000	1000

## Sensors for DC applications

Connection			Pre-cabled, PvR (2 m)			
Dimensions (mm) Ø x L or W x H x D			8 x 22 x 8	15 x 32 x 8	26 x 26 x 13	40 x 40 x 15
<b>2-wire</b>	<b>non polarized</b>	<b>NO</b> function	XS7J1A1DAL2	XS7F1A1DAL2	XS7E1A1DAL2	XS7C1A1DAL2
		<b>NC</b> function	XS7J1A1DBL2	XS7F1A1DBL2	XS7E1A1DBL2	XS7C1A1DBL2
Connection			M8 connector			
<b>2-wire</b>	<b>non polarized</b>	<b>NO</b> function	XS7J1A1DAL01M8 (1)	XS7F1A1DAL01M8 (1)	XS7E1A1DAM8	XS7C1A1DAM8
		<b>NC</b> function	XS7J1A1DBL01M8 (1)	XS7F1A1DBL01M8 (1)	XS7E1A1DBM8	XS7C1A1DBM8
Supply voltage limits, min/max (V) including ripple			10 - 36	10 - 36	10 - 36	10 - 36
Switching capacity, max (mA)			100	100	100	100
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
Residual current, open state (mA)			0.5	0.5	0.5	0.5
Voltage drop, closed state (V) at I nominal			4	4	4	4
Switching frequency (Hz)			4000	5000	1000	1000

(1) Flying lead (L = 0.15 m) with M8 end connector

## Accessories

Fixing				substitution of block type sensors XSE / XSC / XSD		Fixing clamp with indexing pin for cylindrical sensors								
	flat	90°												
Form E	XSZBE00	XSZBE90	XSZBE10			 <table border="1"> <tr> <td>M8</td> <td>XSZB108</td> </tr> <tr> <td>M12</td> <td>XSZB112</td> </tr> <tr> <td>M18</td> <td>XSZB118</td> </tr> <tr> <td>M30</td> <td>XSZB130</td> </tr> </table>	M8	XSZB108	M12	XSZB112	M18	XSZB118	M30	XSZB130
M8	XSZB108													
M12	XSZB112													
M18	XSZB118													
M30	XSZB130													
Form C	XSZBC00	XSZBC90	XSZBC10											
Form D	-	-	XSZBD10											



Form D 80 x 80	M8	M12	M18	M30
40 mm	1.5 mm	2 mm	5 mm	10 mm
0 - 32	0 - 1.2	0 - 1.6	0 - 4	0 - 8
flush mountable	flush mountable	flush mountable	flush mountable	flush mountable
P	M	M	M	M
- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70
pre-cabled: IP68 (with connector: IP67)	IP67	pre-cabled: IP68 (with connector: IP67)		

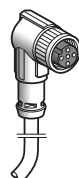
80 x 80 x 26	M8 x 33	M12 x 33	M18 x 36.5	M30 x 40.6
XS7D1A1PAL2	XS508B1PAL2	XS512B1PAL2	XS518B1PAL2	XS530B1PAL2
XS7D1A1PBL2	XS508B1PBL2	XS512B1PBL2	XS518B1PBL2	XS530B1PBL2
XS7D1A1NAL2	XS508B1NAL2	XS512B1NAL2	XS518B1NAL2	XS530B1NAL2
XS7D1A1NBL2	XS508B1NBL2	XS512B1NBL2	XS518B1NBL2	XS530B1NBL2
<b>M12 connector</b>	<b>M8 connector</b>	<b>M12 connector</b>		
XS7D1A1PAM12	XS508B1PAM8	XS512B1PAM12	XS518B1PAM12	XS530B1PAM12
XS7D1A1PBM12	XS508B1PBM8	XS512B1PBM12	XS518B1PBM12	XS530B1PBM12
XS7D1A1NAM12	XS508B1NAM8	XS512B1NAM12	XS518B1NAM12	XS530B1NAM12
XS7D1A1NBM12	XS508B1NBM8	XS512B1NBM12	XS518B1NBM12	XS530B1NBM12
10 - 36	10 - 36	10 - 36	10 - 36	10 - 36
100	200	200	200	200
★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
2	2	2	2	2
100	5000	5000	2000	1000

80 x 80 x 26	M8 x 50	M12 x 50	M18 x 52.5	M30 x 50
XS7D1A1DAL2	XS508B1DAL2	XS512B1DAL2	XS518B1DAL2	XS530B1DAL2
XS7D1A1DBL2	XS508B1DBL2	XS512B1DBL2	XS518B1DBL2	XS530B1DBL2
<b>M12 connector</b>				
XS7D1A1DAM12	XS508B1DAM12	XS512B1DAM12	XS518B1DAM12	XS530B1DAM12
XS7D1A1DBM12	XS508B1DBM12	XS512B1DBM12	XS518B1DBM12	XS530B1DBM12
10 - 36	10 - 58	10 - 58	10 - 58	10 - 58
100	100	100	100	100
★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗
0.5	0.5	0.5	0.5	0.5
4	4	4	4	4
100	4000	4000	3000	2000

### Suitable female plug-in connectors, including pre-wired versions

length 2 m  
without LED

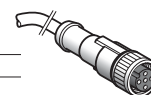
pre-wired,  
90°



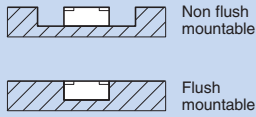
M8 (or S)  
M12 (or D)  
U20 (or K)

XSZCS151  
XSZCD111Y  
XSZCK101Y

pre-wired,  
straight



XSZCS141  
XSZCD101Y  
XSZCK111Y



	M8	M12	M18	M30
<b>Nominal sensing distance Sn</b>	2.5 mm	4 mm	8 mm	15 mm
Operating zone (mm)	0 - 2	0 - 3.2	0 - 6.4	0 - 12
Suitability for flush mounting (metal environment)	non flush mountable			
Case M (metal) P (plastic)	P			
Temperature range (°C)	- 25 to + 70			
Degree of protection (conforming to IEC 60529)	IP67	pre-cabled: IP68 (with connector: IP67)		

## Sensors for DC applications

Connection			Pre-cabled, PvR (2 m)			
Dimensions (mm) Ø x L or W x H x D			M8 x 33	M12 x 33	M18 x 33.5	M30 x 40.5
<b>2-wire</b> (non polarized)	<b>NO or NC</b>	programmable	–	–	–	–
<b>4-wire</b>	<b>PNP</b>	<b>NO + NC</b>	complementary outputs	–	–	–
	<b>NPN</b>	<b>NO + NC</b>	complementary outputs	–	–	–
<b>3-wire</b>	<b>PNP</b>	<b>NO</b> function	XS4P08PA340	XS4P12PA340	XS4P18PA340	XS4P30PA340
		<b>NC</b> function	XS4P08PB340	XS4P12PB340	XS4P18PB340	XS4P30PB340
	<b>NPN</b>	<b>NO</b> function	XS4P08NA340	XS4P12NA340	XS4P18NA340	XS4P30NA340
		<b>NC</b> function	XS4P08NB340	XS4P12NB340	XS4P18NB340	XS4P30NB340
Connection			<b>M8 connector</b>	<b>M12 connector</b>		
<b>3-wire</b>	<b>PNP</b>	<b>NO</b> function	XS4P08PA340S	XS4P12PA340D	XS4P18PA340D	XS4P30PA340D
		<b>NC</b> function	XS4P08PB340S	XS4P12PB340D	XS4P18PB340D	XS4P30PB340D
	<b>NPN</b>	<b>NO</b> function	XS4P08NA340S	XS4P12NA340D	XS4P18NA340D	XS4P30NA340D
		<b>NC</b> function	XS4P08NB340S	XS4P12NB340D	XS4P18NB340D	XS4P30NB340D
Supply voltage limits, min/max (V) including ripple			10 - 38	10 - 38	10 - 38	10 - 38
Switching capacity, max (mA)			200	200	200	200
Short-circuit protect. (★) / LED output state indicator (⊗) / Power on LED (⊙)			★ / ⊗ / –	★ / ⊗ / –	★ / ⊗ / –	★ / ⊗ / –
Voltage drop, closed state (V) at I nominal			2	2	2	2
Switching frequency (Hz)			5000	5000	2000	1000

## Multi-current/multi-voltage sensors for AC/DC applications

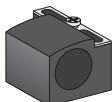
Connection			Pre-cabled, PvR (2 m)			
Dimensions (mm) Ø x L or W x D x H				M8 x 50	M12 x 50	M18 x 60 M30 x 60
<b>2-wire</b>	<b>AC/DC</b>	<b>NO</b> function	XS4P08MA230	XS4P12MA230	XS4P18MA230	XS4P30MA230
		<b>NC</b> function	XS4P08MB230	XS4P12MB230	XS4P18MB230	XS4P30MB230
not short-circuit protected (1)						
	<b>AC</b>	<b>NO or NC</b> programmable	–	–	–	–
	<b>AC/DC</b>	<b>NO or NC</b> programmable	–	–	–	–
Connection			<b>U20 connector</b>			
<b>2-wire</b>	<b>AC/DC</b>	<b>NO</b> function	XS4P08MA230K	XS4P12MA230K	XS4P18MA230K	XS4P30MA230K
		<b>NC</b> function	XS4P08MB230K	XS4P12MB230K	XS4P18MB230K	XS4P30MB230K
Supply voltage limits, min/max (V) including ripple			20 - 264	20 - 264	20 - 264	20 - 264
Switching capacity, max (mA)			100	200	300 AC / 200 DC	300 AC / 200 DC
LED output state indicator (⊗)			⊗	⊗	⊗	⊗
Residual current, open state (mA)			0.6	0.6	0.6	0.6
Voltage drop, closed state (V) at I nominal			5.5	5.5	5.5	5.5
Switching frequency (Hz)			25 AC / 3000 DC	25 AC / 3000 DC	25 AC / 2000 DC	25 AC / 1000 DC

(1) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load

## Accessories

### Fixing clamps

Fixing clamp with indexing pin for cylindrical sensors



M4	XSZB104	M12	XSZB112
M5	XSZB105	M18	XSZB118
M6.5	XSZB165	M30	XSZB130
M8	XSZB108		

## Miniature cylindrical (assembly)



## Rectangular Form C



Miniature cylindrical (assembly)			Rectangular Form C			
Ø 4	M5	Ø 6.5	Form C			
1 mm	1 mm	1.5 mm	15 mm	20 mm increased sensing dist.	20 mm	40 mm increased sensing dist.
0 - 0.8	0 - 0.8	0 - 1.2	0 - 12	0 - 16	0 - 16	0 - 32
flush mountable			flush mountable		non flush mountable	
M			P			
- 25 to + 70			- 25 to + 70			
IP67			IP67			

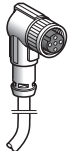
Pre-cabled, PvR (2 m)			Screw terminals (3)			
Ø 4 x 29	M5 x 29	M6.5 x 33	40 x 40 x 117			
-	-	-	XS7C40DP210	-	XS8C40DP210	-
-	-	-	XS7C40PC440	XS7C40PC449	XS8C40PC440	XS8C40PC449
-	-	-	XS7C40NC440	XS7C40NC449	XS8C40NC440	XS8C40NC449
XS1L04PA310	XS1N05PA310	XS1L06PA340	-	-	-	-
-	-	-	-	-	-	-
XS1L04NA310	XS1N05NA310	XS1L06NA340	-	-	-	-
-	-	-	-	-	-	-
<b>M8 connector</b>						
XS1L04PA310S	XS1N05PA311S (2)	XS1L06PA340S	-	-	-	-
-	-	-	-	-	-	-
XS1L04NA310S	XS1N05NA311S (2)	XS1L06NA340S	-	-	-	-
-	-	-	-	-	-	-
5 - 30	5 - 30	10 - 38	12 - 48			
100	100	200	4-wire version = 200 - 2-wire version = 1.5 - 100			
★ / ⊗ / -	★ / ⊗ / -	★ / ⊗ / -	4-wire version = ★ / ⊗ / ⊗ - 2-wire version = ★ / ⊗ / -			
2	2	2	4-wire version = 2 - 2-wire version = 4			
5000	5000	2500	2-wire = 1500 / 4-wire = 1000		2-wire = 800 / 4-wire = 1000 (20 mm) 500 (40 mm)	

			Screw terminals (3)			
			40 x 40 x 117			
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	XS7C40FP260	-	XS8C40FP260	-
-	-	-	XS7C40MP230	-	XS8C40MP230	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	20 - 264			
-	-	-	AC version = 500 - AC/DC version = 300 / 200			
-	-	-	⊗			
-	-	-	AC version = 1.5 - AC/DC version = 0.8 / 1.5			
-	-	-	5.5			
-	-	-	25 AC / 50 DC			

(2) Stainless steel sensors, Sn = 0.8 mm

(3) Sensors supplied without cable gland. Suitable cable gland: 13P

### Suitable female plug-in connectors, including pre-wired versions

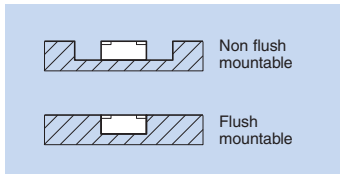
length 2 m without LED	pre-wired, 90°		pre-wired, straight
M8 (or S)	XSZCS114		XSZCD104
M12 (or D)	XSZCD114Y		XSZCD104Y
U20 (or K)	XSZCK111Y		XSZCK101Y



## Inductive proximity sensors - Application

### Rotation control

### Ferrous/non-ferrous with fixed sensing distance



	Form E 26 x 26	Form C 40 x 40	M30	M18	M30
Nominal sensing distance $S_n$	10 mm	15 mm	10 mm	5 mm	10 mm
Operating zone (mm)	0 - 8	0 - 12	0 - 8	0 - 4	0 - 8
Suitability for flush mounting (metal environment)	flush mountable			flush mountable	
Case M (metal) P (plastic)	P	P	M	M	M
Temperature range (°C)	- 25 to + 70			0 to + 50	
Degree of protection (conforming to IEC 60529)	IP67			pre-cabled: IP68 (with connector: IP67)	
Dimensions (mm) $\varnothing$ x L or W x H x D	26 x 26 x 13	40 x 40 x 15	M30 x 81	M18 x 70	M30 x 60
Maximum speed of passing object (impulses/min)	48000	48000	6000 - 48000 (1)	-	-
Adjustable frequency range (impulses/min)	60 - 6000	60 - 6000	6 - 150 / 120 - 3000 (1)	-	-

### Sensors for DC applications

Connection			Pre-cabled, PvR (2 m)				
4-wire	PNP/NPN NO/NC	programmable	-	-	-	XS1M18KPM40	XS1M30KPM40
3-wire	PNP NC function	slow version	-	-	XSAV11373	-	-
		fast version	-	-	XSAV12373	-	-
	0 - 10 V output	plastic	-	-	-	-	-
4 - 20 mA output		metal, flush mountable	-	-	-	-	-
		plastic, flush mountable	-	-	-	-	-
		plastic, non flush mountable	-	-	-	-	-
Connection			M8 or M12 connector				
4-wire	PNP/NPN NO/NC	programmable	-	-	-	XS1M18KPM40D	XS1M30KPM40LD
3-wire	PNP NC function		XS9E11RPBL01M12 (3)	XS9C11RPBL01M12 (3)	-	-	-
		0 - 10 V output	-	-	-	-	-
	4 - 20 mA output		-	-	-	-	-
Supply voltage limits, min/max (V) including ripple			10 - 36	10 - 36	10 - 58	10 - 38	
Switching capacity, max (mA)			200	200	200	200	
Short-circuit protect. (★) / LED output state indicator (⊗) / Power on LED (⊗)			(⊗)	★ / ⊗ / ⊗	★ / ⊗ / ⊗	★ / ⊗ / -      ★ / ⊗ / -	
Linearity error			-	-	-	-	
Voltage drop, closed state (V) at I nominal			2	2	2	2.6	
Switching frequency (Hz)			-	-	-	1000	
Operating frequency (Hz)			-	-	-	-	

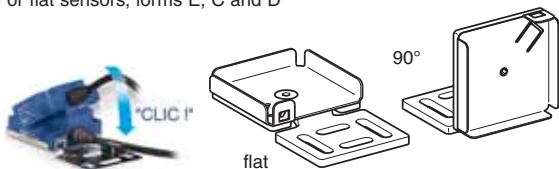
### Multi-current/multi-voltage sensors for AC/DC applications

Connection			Pre-cabled, PvR (2 m)		
2-wire	AC/DC	NC function	XS9E11RMBL01U20 (5)	XS9C11RMBL01U20 (5)	-
not short-circuit protected (2)	NC function	slow version	-	-	XSAV11801
		fast version	-	-	XSAV12801
Supply voltage limits, min/max (V) 50-60 Hz			20 - 264	20 - 264	20 - 264
Switching capacity, max (mA)			200	300 AC / 200 DC	350 AC / 200 DC
LED output state indicator (⊗) / Power on LED (⊗)			⊗ / ⊗	⊗ / ⊗	⊗ / -
Residual current, open state (mA)			1.5	1.5	1.5
Voltage drop, closed state (V) at I nominal			5.5	5.5	5.7
Switching frequency (Hz)			-	-	-

### Accessories

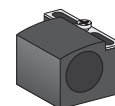
#### Fixing

For flat sensors, forms E, C and D



	flat	90°	substitution of block type sensors XSE / XSC / XSD
Form E	XSZBE00	XSZBE90	XSZBE10
Form C	XSZBC00	XSZBC90	XSZBC10
Form D	-	-	XSZBD10

Fixing clamp with indexing pin for cylindrical sensors



M12	XSZB112
M18	XSZB118
M30	XSZB130

## Analog (Position control)



	Form F 8 x 32	Form E 26 x 26	Form C 40 x 40	Form D 80 x 80	M12	M18	M30
	5 mm	10 mm	15 mm	40 mm	M: 2 mm / P: 4 mm	M: 5 mm / P: 8 mm	M: 10 mm / P: 15 mm
	1 - 4	1 - 10	2 - 15	5 - 40	M: 0.2 - 2 / P: 0.4 - 4	M: 0.5 - 5 / P: 0.8 - 8	M: 1 - 10 / P: 1.5 - 15
	flush mountable	flush mountable	flush mountable	flush mountable	flush / non flush mountable	flush / non flush mountable	flush / non flush mountable
	P	P	P	P	M or P	M or P	M or P
	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70	- 25 to + 70
	pre-cabled: IP68 (with connector: IP67)				IP67		
	15 x 8 x 32	26 x 26 x 13	40 x 40 x 15	80 x 80 x 26	Ø 12 x 50	Ø 18 x 50	Ø 30 x 52.5
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-

	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	XS9F111A1L2	XS9E111A1L2	XS9C111A1L2	XS9D111A1L2	XS4P12AB110	XS4P18AB110	XS4P30AB110
	-	-	-	-	XS1M12AB120	XS1M18AB120	XS1M30AB120
	XS9F111A2L2	XS9E111A2L2	XS9C111A2L2	XS9D111A2L2	-	-	-
	-	-	-	-	XS4P12AB120	XS4P18AB120	XS4P30AB120
connector	<b>M8 or M12 connector</b>						
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	XS9F111A1L01M8 (4)	XS9E111A1L01M12 (4)	XS9C111A1L01M12 (4)	XS9D111A1M12	-	-	-
	XS9F111A2L01M8 (4)	XS9E111A2L01M12 (4)	XS9C111A2L01M12 (4)	XS9D111A2M12	-	-	-
	10 - 36	10 - 36	10 - 36	10 - 36	10 - 38	10 - 38	10 - 38
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	± 1 V for 0 - 10 V version / ± 2 mA for 4 - 20 mA version						
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	2000	1000	1000	100	1500	500	300

(1) 6 - 150 and 6000 impulses/min for XSAV11373 and XSAV11801 (slow version); 120 - 3000 and 48000 impulses/min for XSAV12373 and XSAV12801 (fast version)

(2) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load

(3) Flying lead (L = 0.15 m) with end mounted remote control incorporating M12 connector

(4) Flying lead (L = 0.15 m) with end connector

(5) Flying lead (L = 0.15 m) with end mounted remote control incorporating 1/2-20 UNF connector

### Suitable female plug-in connectors, including pre-wired versions

length 2 m without LED	pre-wired, 90°		pre-wired, straight	
M8	XSZCS114		XSZCD104	
M12 (or D)	XSZCD114Y		XSZCD104Y	
U20	XSZCK111Y		XSZCK101Y	



		M8	M12	M18	M30
Nominal sensing distance $S_n$	flush mountable	2.5 mm	4 mm	10 mm	20 mm
	non flush mountable	–	–	–	–
Operating zone (mm)	flush mountable	0 - 2	0 - 3.2	0 - 8	0 - 16
	non flush mountable	–	–	–	–
Suitability for flush mounting (metal environment)		Flush mountable			
Case M (metal) P (plastic)		M			
Temperature range (°C)		- 25 to + 50			
Degree of protection (conforming to IEC 60529)		IP67		IP68 (with connector: IP67)	
Dimensions (mm) Ø x L		M8 x 33	M12 x 33	M18 x 33.5	M30 x 40.6

### Sensors for DC applications

Connection				Pre-cabled, PvR (2 m)				
3-wire	PNP	NO function		XS1N08PA349	XS1N12PA349	XS1N18PA349	XS1N30PA349	
		NC function		XS1N08PB349	XS1N12PB349	XS1N18PB349	XS1N30PB349	
	NPN	NO function		XS1N08NA349	XS1N12NA349	XS1N18NA349	XS1N30NA349	
		NC function		XS1N08NB349	XS1N12NB349	XS1N18NB349	XS1N30NB349	
4-wire	PNP	NO + NC	flush mountable	–	–	–	–	
			non flush mountable	–	–	–	–	
		NPN	NO + NC	flush mountable	–	–	–	–
				non flush mountable	–	–	–	–
	PNP+NPN NO/NC programmable	NO/NC	flush mountable (metal)	–	–	–	–	
			non flush mountable (metal)	–	–	–	–	
			non flush mountable (plastic)	–	–	–	–	
			–	–	–	–		
Connection				M8 connector		M12 connector		
3-wire	PNP	NO function		XS1N08PA349S (1)	XS1N12PA349D	XS1N18PA349D	XS1N30PA349D	
		NC function		XS1N08PB349S (1)	XS1N12PB349D	XS1N18PB349D	XS1N30PB349D	
	NPN	NO function		XS1N08NA349S (1)	XS1N12NA349D	XS1N18NA349D	XS1N30NA349D	
		NC function		XS1N08NB349S (1)	XS1N12NB349D	XS1N18NB349D	XS1N30NB349D	
4-wire	PNP	NO + NC	flush mountable	–	–	–	–	
			non flush mountable	–	–	–	–	
		NPN	NO + NC	flush mountable	–	–	–	–
				non flush mountable	–	–	–	–
	PNP+NPN NO/NC programmable	NO/NC	flush mountable (metal)	–	–	–	–	
			non flush mountable (metal)	–	–	–	–	
			non flush mountable (plastic)	–	–	–	–	
			–	–	–	–		
Supply voltage limits, min/max (V) including ripple				10 - 38				
Switching capacity, max (mA)				200				
Short-circuit protection (★) / LED output state indicator (⊗)				★ / –				
Voltage drop, closed state (V) at I nominal				2.6				
Switching frequency (Hz)				2500	2500	1000	500	

(1) For versions with M12 connector, replace "S" with "D". Example: XS1N08PA349S becomes XS1N08PA349D

### Accessories

#### Fixing clamps

Fixing clamp with indexing pin for cylindrical sensors



M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

## Complimentary outputs - Short case NO + NC

## PNP + NPN outputs NO/NC programmable

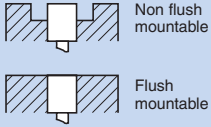


Complimentary outputs - Short case				PNP + NPN outputs		
M8	M12	M18	M30	M12	M18	M30
1.5 mm	2 mm	5 mm	10 mm	2 mm	5 mm	10 mm
2.5 mm	4 mm	8 mm	15 mm	4 mm	8 mm	15 mm
0 - 1.2	0 - 1.6	0 - 4	0 - 8	0 - 1.6	0 - 4	0 - 8
0 - 2	0 - 3.2	0 - 6.4	0 - 12	0 - 3.2	0 - 6.4	0 - 12
Flush mountable or non flush mountable depending on model				Flush mountable or non flush mountable depending on model		
M				M or P depending on model		
- 25 to + 80		- 25 to + 70		- 25 to + 70		
IP67		IP68 (with connector: IP67)		IP68 (with connector: IP67)		
M8 x 50	M12 x 33	M18 x 36.5	M30 x 40.5	M12 x 50	M18 x 60	M30 x 60

Complimentary outputs - Short case				PNP + NPN outputs		
M8	M12	M18	M30	M12	M18	M30
<b>Pre-cabled, PvR (2 m)</b>				<b>Pre-cabled, PvR (2 m)</b>		
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
XS1M08PC410	XS1N12PC410	XS1N18PC410	XS1N30PC410	-	-	-
XS2M08PC410	XS2N12PC410	XS2N18PC410	XS2N30PC410	-	-	-
XS1N08NC410	XS1N12NC410	XS1N18NC410	XS1N30NC410	-	-	-
XS2M08NC410	XS2N12NC410	XS2N18NC410	XS2N30NC410	-	-	-
-	-	-	-	XS1M12KP340	XS1M18KP340	XS1M30KP340
-	-	-	-	XS2M12KP340	XS2M18KP340	XS2M30KP340
-	-	-	-	XS4P12KP340	XS4P18KP340	XS4P30KP340
<b>M12 connector</b>				<b>M12 connector</b>		
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
XS1M08PC410D	XS1N12PC410D	XS1N18PC410D	XS1N30PC410D	-	-	-
XS2M08PC410D	XS2N12PC410D	XS2N18PC410D	XS2N30PC410D	-	-	-
XS1M08NC410D	XS1N12NC410D	XS1N18NC410D	XS1N30NC410D	-	-	-
XS2M08NC410D	XS2N12NC410D	XS2N18NC410D	XS2N30NC410D	-	-	-
-	-	-	-	XS1M12KP340D	XS1M18KP340D	XS1M30KP340D
-	-	-	-	XS2M12KP340D	XS2M18KP340D	XS2M30KP340D
-	-	-	-	XS4P12KP340D	XS4P18KP340D	XS4P30KP340D
10 - 38				10 - 38		
200				200		
★ / ⊗				★ / -		
2				2.6		
5000	5000	2000	1000	5000	2000	1000

### Suitable female plug-in connectors, including pre-wired versions

length 2 m without LED	pre-wired, 90°		pre-wired, straight	
M8 (or S)	XSZCS151		XSZCS141	
M12 (or D)	XSZCD114		XSZCD104Y	



		M12	M18	M30
<b>Nominal sensing distance Sn</b>	flush mountable	2 mm	5 mm	10 mm
	non flush mountable	4 mm	8 mm	15 mm
Operating zone (mm)	flush mountable	0 - 1.6	0 - 4	0 - 8
	non flush mountable	0 - 3.2	0 - 6.4	0 - 12
Suitability for flush mounting (metal environment)		Flush mountable or non flush mountable depending on model		
Case M (metal) P (plastic)		M		
Temperature range (°C)		- 25 to + 70		
Degree of protection (conforming to IEC 60529)		IP68 (with connector: IP67)		
Dimensions (mm) Ø x L		M12 x 50	M18 x 60	M30 x 60

### Multi-current/multi-voltage sensors for AC/DC applications

Connection			Pre-cabled, PvR (2 m)		
<b>2-wire AC/DC</b>	<b>NO</b> function	flush mountable	XS1M12MA250	XS1M18MA250	XS1M30MA250
		non flush mountable	XS2M12MA250	XS2M18MA250	XS2M30MA250
	<b>NC</b> function	flush mountable	XS1M12MB250	XS1M18MB250	XS1M30MB250
		non flush mountable	XS2M12MB250	XS2M18MB250	XS2M30MB250
Connection			1/2" 20 Micro style AC		
<b>2-wire AC/DC</b>	<b>NO</b> function	flush mountable	XS1M12MA250K	XS1M18MA250K	XS1M30MA250K
		non flush mountable	XS2M12MA250K	XS2M18MA250K	XS2M30MA250K
	<b>NC</b> function	flush mountable	XS1M12MB250K	XS1M18MB250K	XS1M30MB250K
		non flush mountable	XS2M12MB250K	XS2M18MB250K	XS2M30MB250K
Supply voltage limits, min/max (VAC) 50-60 Hz including ripple		20 - 264			
Switching capacity, max (mA)		200	200 AC, 5 - 300 DC		
LED output state indicator (⊗) / Power on LED (⊗)		⊗ / ⊗			
Residual current, open state (mA)		1.5			
Voltage drop, closed state (V) at I nominal		5.5			
Switching frequency (Hz)		25 AC, 4000 DC	25 AC, 2000 DC	25 AC, 2000 DC (1)	

(1) 25 AC, 1000 DC for non flush mountable Ø 30 mm

### Accessories

#### Fixing clamps

Fixing clamp with indexing pin for cylindrical sensors



M12	XSZB112
M18	XSZB118
M30	XSZB130

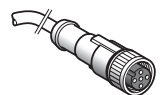
#### Suitable female plug-in connectors, including pre-wired versions

length 2 m without LED

pre-wired, 90°



pre-wired, straight



U20 (or K)

XSZCK101Y

XSZCK111Y

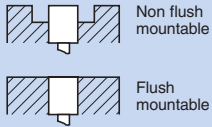


# Capacity proximity sensors

## Detection of insulating materials (flush mountable) or conductive materials (non flush materials)

Osiprox

1



	Suitability for flush mtg. (metal environment)	M12	M18	M30	Ø 32	40 x 40
Nominal sensing distance Sn	flush mountable	2.0 mm	5 mm	10 mm	15 mm	15 mm
	non flush mountable	–	8 mm	15 mm	20 mm	–
Operating zone (mm)	flush mountable	0 - 1.44	0 - 3.6	0 - 7.2	0 - 10.8	0 - 10.8
	non flush mountable	–	0 - 5.8	0 - 10.8	0 - 14.4	–
Case M (metal) P (plastic)	flush mountable	M	M	M	M	P
	non flush mountable	–	P	P	P	–
Temperature range (°C)		- 25 to + 70				
Degree of protection (conforming to IEC 60529)		IP67			IP63	IP67
Dimensions (mm) Ø x L		M12 x 60	M18 x 60	M30 x 60	M32 x 80	40 x 40 x 117

### Sensors for DC applications

Connection				Pre-cabled, PVC (2 m)			
3-wire	PNP	NO function	flush mountable	XT1M12PA372	XT1M18PA372	XT1M30PA372	–
			non flush mountable	–	XT4P18PA372	XT4P30PA372	–
	NC function	flush mountable	XT1M12PB372	XT1M18PB372	XT1M30PB372	–	
		non flush mountable	–	–	–	–	
NPN	NO function	flush mountable	XT1M12NA372	XT1M18NA372	XT1M30NA372	–	
		non flush mountable	–	XT4P18NA372	XT4P30NA372	–	
Connection				Screw terminals			
3-wire	PNP	NO + NC functions	flush mountable	–	–	–	–
			flush mountable	–	–	–	–
NPN	NO + NC functions	flush mountable	–	–	–	–	
		flush mountable	–	–	–	–	
Supply voltage limits, min/max (V) including ripple				10 - 38			
Switching capacity, max (mA)				300			
Short circuit-protection (★) / LED output state indicator (⊗)				★ / ⊗			
Voltage drop, closed state (V) at I nominal				2			
Switching frequency (Hz)				100			
				Screw terminals			
				XT7C40PC440			
				XT7C40NC440			
Supply voltage limits, min/max (V) including ripple				10 - 38			
Switching capacity, max (mA)				300			
Short circuit-protection (★) / LED output state indicator (⊗)				★ / ⊗			
Voltage drop, closed state (V) at I nominal				2			
Switching frequency (Hz)				100			

### Multi-current / multi-voltage for AC applications

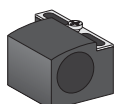
Connection				Pre-cabled, PVC (2 m)			
2-wire AC	NO function	flush mountable	–	XT1M18FA262	XT1M30FA262	XT1L32FA262	–
		not short-circuit protected (1)	non flush mountable	–	XT4P18FA262	XT4P30FA262	XT4L32FA262
	NC function	flush mountable	–	XT1M18FB262	XT1M30FB262	XT1L32FB262	–
		non flush mountable	–	–	XT4P30FB262	XT4L32FB262	–
Connection				Screw terminals			
2-wire AC NO or NC programmable flush mountable				XT7C40FP262			
Supply voltage limits, min/max (V) 50-60 Hz				20 - 264			
Switching capacity, max (mA)				300			
LED output state indicator (⊗) / Power on LED (⊗)				⊗ / –			
Residual current, open state (mA)				–			
Voltage drop, closed state (V) at I nominal				1.5 @ 120 V			
Switching frequency (Hz)				7			
				1.5 @ 120 V			
				5.5			
				25			
				10			
				25			

(1) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load

### Accessories

#### Fixing clamps

Fixing clamp with indexing pin for cylindrical sensors



M8	XSZB108
M12	XSZB112
M18	XSZB118
Ø 32	XSZB32

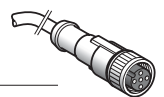
#### Suitable female plug-in connectors, including pre-wired versions

length 2 m without LED

pre-wired, 90°



pre-wired, straight



M8	XSZCS151
M12	XSZCD114Y

XSZCS141
XSZCD104Y



Model Number*					
Characteristic					
Housing Style		18 mm Barrel Style (1)		Dual Mount Style	
Housing Material		PBT		VALOX®	
Supply Voltage		12-24 VDC		12-24 VDC	
Range	Window				
508 mm	Teachable	Cable	Quick Disconnect	Cable	Quick Disconnect
			VM18-NNO-Q	VM1-NNO	VM1-NNO-Q
			VM18-NNC-Q	VM1-NNC	VM1-NNC-Q
			VM18-PNO-Q	VM1-PNO	VM1-PNO-Q
			VM18-PNC-Q	VM1-PNC	VM1-PNC-Q

(\*) All possible sensor configurations are not listed here  
(1) VM18 are not available in cable style

PB100 In-line accessory pushbutton for teaching window limits (for Virtu™ series sensors)



### Virtu™ Analog



Model Number*					
Characteristic					
Housing Style		18 mm Barrel Style (1)		Dual Mount Style	
Housing Material		PBT		VALOX®	
Supply Voltage		15-24 VDC		15-24 VDC	
Range	Window				
508 mm	Teachable	Cable	Quick Disconnect	Cable	Quick Disconnect
			VM18-VA-Q	VM1-VA	VM1-VA-Q
			VM18-VI-Q	VM1-VI	VM1-VI-Q
			VM18-VD-Q	VM1-VD	VM1-VD-Q
			VM18-CA-Q	VM1-CA	VM1-CA-Q
			VM18-CI-Q	VM1-CI	VM1-CI-Q
			VM18-CD-Q	VM1-CD	VM1-CD-Q

(\*) All possible sensor configurations are not listed here  
(1) VM18 are not available in cable style

Accessories					
Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2m	XSCD111Y	M12 connector	2 m
PB100 In-line accessory push-button for teaching window limits (for Virtu™ series sensors)					

# Ultrasonic Sensors Dual Mount & 18 mm

# SM300 Series



12 mm ULTEM®



Flat-profile ULTEM®

### Model Number\*

Characteristics						
Housing Style/Material		12 mm ULTEM®	Flat-profile ULTEM®	12 mm ULTEM®	Flat-profile ULTEM®	
Supply Voltage		12-24 VDC	12-24 VDC	12-24 VDC	12-24 VDC	
Connection Type		3 m Cable		M12 Connector		
Range	Window					
50.8 mm	44.5 mm					
		NO	SM300A-228-00	SM300A-228-00FP	SM350A-228-00	SM350A-228-00FP M8
					SM380A-228-00FP M12	
		NC	SM300A-228-10	SM300A-228-10FP	SM350A-228-10	SM350A-228-10FP M8
101.6 mm	25.4 mm					
		NO	SM300A-416-00			SM350A-416-00FP M8
101.6 mm	95.3 mm					
		NO	SM300A-460-00	SM300A-460-00FP		SM330A-460-00FP M8 (1)
						SM340A-460-00FP M8 (2)
						SM350A-460-00FP M8
						SM380A-228-00FP M12
		NC	SM300A-460-10			SM350A-460-10FP M8

(1) PNP output only – 3 pin

(2) NPN output only – 3 pin

(\*) All possible sensor configurations are not listed here

# SM302 Dual-level Sensing



12 mm ULTEM®



Flat-profile ULTEM®

### Model Number\*

Characteristics						
Housing Style/Material		12 mm ULTEM®	Flat-profile ULTEM®	12 mm ULTEM®	Flat-profile ULTEM®	
Supply Voltage		12-24 VDC	12-24 VDC	12-24 VDC	12-24 VDC	
Connection Type		3 m Cable		M12 Connector		
Range	Window					
50.8 mm	19.05					
		Pump-in	SM302A-212-10	SM302-212-10FP	SM382A-212-10	SM382-212-10FP M12
		Pump-out	SM302A-212-00	SM302A-212-00FP	SM382A-212-00	SM382A-212-00FP M12
72.6 mm	25.4 mm					
		Pump-in	SM302A-316-10	SM302-316-10FP	SM352A-316-10	SM352-316-10FP M8
		Pump-out	SM302A-316-00	SM302A-316-00FP	SM352A-316-00	SM352A-316-00FP M8
101.6 mm	25.4 mm					
		Pump-in	SM302A-416-10	SM302-416-10FP	SM382A-416-10	SM382-416-10FP M12
		Pump-out	SM302A-416-00	SM302A-416-00FP	SM382A-416-00	SM382A-416-00FP M12
101.6 mm	50.8 mm					
		Pump-in	SM302A-432-10	SM302-432-10FP	SM352A-432-10	SM352-432-10FP M8
		Pump-out	SM302A-432-00	SM302A-432-00FP	SM352A-32-00	SM352A-432-00FP M8

(\*) All possible sensor configurations are not listed here

### Accessories for SM300 and SM302 series

Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
XSCS101	M8 connector	2 m	XSCS111	M8 connector	2 m

Additional cable lengths are available

# SM600 Series

## Ultrasonic Sensors 18 mm & Flat-profile



18 mm ULTEM®



18 mm Stainless



Flat-profile ULTEM®

### Model Number\*

#### Characteristics

Housing Style/Material		18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	
Connection Type		3 m Cable			M12 Connector			
Supply Voltage		12-24 VDC			12-24 VDC			
Range	Window							
51 mm	1.6 mm	NO	SM600A-201-00	SM600A-201-00S	SM600A-201-00FP	SM650A-201-00	SM650A-201-00S	SM650A-201-00FP
		NC	SM600A-201-10	SM600A-201-10S	SM600A-201-10FP	SM650A-201-10	SM650A-201-10S	SM650A-201-10FP
13 mm		NO	SM600A-208-00	SM600A-208-00S	SM600A-208-00FP	SM650A-208-00	SM650A-208-00S	SM650A-208-00FP
		NC	SM600A-208-10	SM600A-208-10S	SM600A-208-10FP	SM650A-208-10	SM650A-208-10S	SM650A-208-10FP
19 mm		NO	SM600A-212-00	SM600A-212-00S	SM600A-212-00FP	SM650A-212-00	SM650A-212-00S	SM650A-212-00FP
		NC	SM600A-212-10	SM600A-212-10S	SM600A-212-10FP	SM650A-212-10	SM650A-212-10S	SM650A-212-10FP
25 mm		NO	SM600A-216-00	SM600A-216-00S	SM600A-216-00FP	SM650A-216-00	SM650A-216-00S	SM650A-216-00FP
		NC	SM600A-216-10	SM600A-216-10S	SM600A-216-10FP	SM650A-216-10	SM650A-216-10S	SM650A-216-10FP
77 mm	1.6 mm	NO	SM600A-301-00	SM600A-301-00S	SM600A-301-00FP	SM650A-301-00	SM650A-301-00S	SM650A-301-00FP
		NC	SM600A-301-10	SM600A-301-10S	SM600A-301-10FP	SM650A-301-10	SM650A-301-10S	SM650A-301-10FP
13 mm		NO	SM600A-308-00	SM600A-308-00S	SM600A-308-00FP	SM650A-308-00	SM650A-308-00S	SM650A-308-00FP
		NC	SM600A-308-10	SM600A-308-10S	SM600A-308-10FP	SM650A-308-10	SM650A-308-10S	SM650A-308-10FP
19 mm		NO	SM600A-312-00	SM600A-312-00S	SM600A-312-00FP	SM650A-312-00	SM650A-312-00S	SM650A-312-00FP
		NC	SM600A-312-10	SM600A-312-10S	SM600A-312-10FP	SM650A-312-10	SM650A-312-10S	SM650A-312-10FP
25 mm		NO	SM600A-316-00	SM600A-316-00S	SM600A-316-00FP	SM650A-316-00	SM650A-316-00S	SM650A-316-00FP
		NC	SM600A-316-10	SM600A-316-10S	SM600A-316-10FP	SM650A-316-10	SM650A-316-10S	SM650A-316-10FP
51 mm		NO	SM600A-332-00	SM600A-332-00S	SM600A-332-00FP	SM650A-332-00	SM650A-332-00S	SM650A-332-00FP
		NC	SM600A-332-10	SM600A-332-10S	SM600A-332-10FP	SM650A-332-10	SM650A-332-10S	SM650A-332-10FP
102 mm	1.6 mm	NO	SM600A-401-00	SM600A-401-00S	SM600A-401-00FP	SM650A-401-00	SM650A-401-00S	SM650A-401-00FP
		NC	SM600A-401-10	SM600A-401-10S	SM600A-401-10FP	SM650A-401-10	SM650A-401-10S	SM650A-401-10FP
13 mm		NO	SM600A-408-00	SM600A-408-00S	SM600A-408-00FP	SM650A-408-00	SM650A-408-00S	SM650A-408-00FP
		NC	SM600A-408-10	SM600A-408-10S	SM600A-408-10FP	SM650A-408-10	SM650A-408-10S	SM650A-408-10FP
19 mm		NO	SM600A-412-00	SM600A-412-00S	SM600A-412-00FP	SM650A-412-00	SM650A-412-00S	SM650A-412-00FP
		NC	SM600A-412-10	SM600A-412-10S	SM600A-412-10FP	SM650A-412-10	SM650A-412-10S	SM650A-412-10FP
25 mm		NO	SM600A-416-00	SM600A-416-00S	SM600A-416-00FP	SM650A-416-00	SM650A-416-00S	SM650A-416-00FP
		NC	SM600A-416-10	SM600A-416-10S	SM600A-416-10FP	SM650A-416-10	SM650A-416-10S	SM650A-416-10FP
51 mm		NO	SM600A-432-00	SM600A-432-00S	SM600A-432-00FP	SM650A-432-00	SM650A-432-00S	SM650A-432-00FP
		NC	SM600A-432-10	SM600A-432-10S	SM600A-432-10FP	SM650A-432-10	SM650A-432-10S	SM650A-432-10FP
77 mm		NO	SM600A-448-00	SM600A-448-00S	SM600A-448-00FP	SM650A-448-00	SM650A-448-00S	SM650A-448-00FP
		NC	SM600A-448-10	SM600A-448-10S	SM600A-448-10FP	SM650A-448-10	SM650A-448-10S	SM650A-448-10FP

(\*) All possible sensor configurations are not listed here

#### Accessories for SM600 series

Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					

# Ultrasonic Sensors SM600 Series 18 mm & Flat-profile (continued)



18 mm ULTEM®



18 mm Stainless



Flat-profile ULTEM®

Model Number*							
<b>Characteristics</b>							
Housing Style/Material		18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®
Connection Type		3 m (10') Cable			M12 Connector		
Supply Voltage		12-24 VDC			12-24 VDC		
Range	Window						
127 mm	1.6 mm						
13 mm	NO	SM600A-501-00	SM600A-501-00S	SM600A-501-00FP	SM650A-501-00	SM650A-501-00S	SM650A-501-00FP
	NC	SM600A-501-10	SM600A-501-10S	SM600A-501-10FP	SM650A-501-10	SM650A-501-10S	SM650A-501-10FP
19 mm	NO	SM600A-508-00	SM600A-508-00S	SM600A-508-00FP	SM650A-508-00	SM650A-508-00S	SM650A-508-00FP
	NC	SM600A-508-10	SM600A-508-10S	SM600A-508-10FP	SM650A-508-10	SM650A-508-10S	SM650A-508-10FP
25 mm	NO	SM600A-512-00	SM600A-512-00S	SM600A-512-00FP	SM650A-512-00	SM650A-512-00S	SM650A-512-00FP
	NC	SM600A-512-10	SM600A-512-10S	SM600A-512-10FP	SM650A-512-10	SM650A-512-10S	SM650A-512-10FP
51 mm	NO	SM600A-516-00	SM600A-516-00S	SM600A-516-00FP	SM650A-516-00	SM650A-516-00S	SM650A-516-00FP
	NC	SM600A-516-10	SM600A-516-10S	SM600A-516-10FP	SM650A-516-10	SM650A-516-10S	SM650A-516-10FP
77 mm	NO	SM600A-532-00	SM600A-532-00S	SM600A-532-00FP	SM650A-532-00	SM650A-532-00S	SM650A-532-00FP
	NC	SM600A-532-10	SM600A-532-10S	SM600A-532-10FP	SM650A-532-10	SM650A-532-10S	SM650A-532-10FP
152 mm	NO	SM600A-548-00	SM600A-548-00S	SM600A-548-00FP	SM650A-548-00	SM650A-548-00S	SM650A-548-00FP
	NC	SM600A-548-10	SM600A-548-10S	SM600A-548-10FP	SM650A-548-10	SM650A-548-10S	SM650A-548-10FP
13 mm	NO	SM600A-601-00	SM600A-601-00S	SM600A-601-00FP	SM650A-601-00	SM650A-601-00S	SM650A-601-00FP
	NC	SM600A-601-10	SM600A-601-10S	SM600A-601-10FP	SM650A-601-10	SM650A-601-10S	SM650A-601-10FP
19 mm	NO	SM600A-608-00	SM600A-608-00S	SM600A-608-00FP	SM650A-608-00	SM650A-608-00S	SM650A-608-00FP
	NC	SM600A-608-10	SM600A-608-10S	SM600A-608-10FP	SM650A-608-10	SM650A-608-10S	SM650A-608-10FP
25 mm	NO	SM600A-612-00	SM600A-612-00S	SM600A-612-00FP	SM650A-612-00	SM650A-612-00S	SM650A-612-00FP
	NC	SM600A-612-10	SM600A-612-10S	SM600A-612-10FP	SM650A-612-10	SM650A-612-10S	SM650A-612-10FP
51 mm	NO	SM600A-616-00	SM600A-616-00S	SM600A-616-00FP	SM650A-616-00	SM650A-616-00S	SM650A-616-00FP
	NC	SM600A-616-10	SM600A-616-10S	SM600A-616-10FP	SM650A-616-10	SM650A-616-10S	SM650A-616-10FP
77 mm	NO	SM600A-632-00	SM600A-632-00S	SM600A-632-00FP	SM650A-632-00	SM650A-632-00S	SM650A-632-00FP
	NC	SM600A-632-10	SM600A-632-10S	SM600A-632-10FP	SM650A-632-10	SM650A-632-10S	SM650A-632-10FP
127 mm	NO	SM600A-648-00	SM600A-648-00S	SM600A-648-00FP	SM650A-648-00	SM650A-648-00S	SM650A-648-00FP
	NC	SM600A-648-10	SM600A-648-10S	SM600A-648-10FP	SM650A-648-10	SM650A-648-10S	SM650A-648-10FP
127 mm	NO	SM600A-680-00	SM600A-680-00S	SM600A-680-00FP	SM650A-680-00	SM650A-680-00S	SM650A-680-00FP
	NC	SM600A-680-10	SM600A-680-10S	SM600A-680-10FP	SM650A-680-10	SM650A-680-10S	SM650A-680-10FP

(\*) All possible sensor configurations are not listed here

Accessories for SM600 series					
Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					

(continued)

Model Number*								
Characteristics								
Housing Style/Material		18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	
Connection Type		3 m Cable			Connector			
Supply Voltage		12-24 VDC			12-24 VDC			
Range	Window							
178 mm	1.6 mm	NO	SM600A-701-00	SM600A-701-00S	SM600A-701-00FP	SM650A-701-00	SM650A-701-00S	SM650A-701-00FP
		NC	SM600A-701-10	SM600A-701-10S	SM600A-701-10FP	SM650A-701-10	SM650A-701-10S	SM650A-701-10FP
13 mm		NO	SM600A-708-00	SM600A-708-00S	SM600A-708-00FP	SM650A-708-00	SM650A-708-00S	SM650A-708-00FP
		NC	SM600A-708-10	SM600A-708-10S	SM600A-708-10FP	SM650A-708-10	SM650A-708-10S	SM650A-708-10FP
9 mm		NO	SM600A-712-00	SM600A-712-00S	SM600A-712-00FP	SM650A-712-00	SM650A-712-00S	SM650A-712-00FP
		NC	SM600A-712-10	SM600A-712-10S	SM600A-712-10FP	SM650A-712-10	SM650A-712-10S	SM650A-712-10FP
25 mm		NO	SM600A-716-00	SM600A-716-00S	SM600A-716-00FP	SM650A-716-00	SM650A-716-00S	SM650A-716-00FP
		NC	SM600A-716-10	SM600A-716-10S	SM600A-716-10FP	SM650A-716-10	SM650A-716-10S	SM650A-716-10FP
51 mm		NO	SM600A-732-00	SM600A-732-00S	SM600A-732-00FP	SM650A-732-00	SM650A-732-00S	SM650A-732-00FP
		NC	SM600A-732-10	SM600A-732-10S	SM600A-732-10FP	SM650A-732-10	SM650A-732-10S	SM650A-732-10FP
77 mm		NO	SM600A-748-00	SM600A-748-00S	SM600A-748-00FP	SM650A-748-00	SM650A-748-00S	SM650A-748-00FP
		NC	SM600A-748-10	SM600A-748-10S	SM600A-748-10FP	SM650A-748-10	SM650A-748-10S	SM650A-748-10FP
127 mm		NO	SM600A-780-00	SM600A-780-00S	SM600A-780-00FP	SM650A-780-00	SM650A-780-00S	SM650A-780-00FP
		NC	SM600A-780-10	SM600A-780-10S	SM600A-780-10FP	SM650A-780-10	SM650A-780-10S	SM650A-780-10FP

(\*) All possible sensor configurations are not listed here

### Accessories for SM602 Series

Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					



## SM602 Dual-level

Model Number*							
<b>Characteristics</b>							
Housing Style/Material		18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®
Connection Type		3 m Cable			M12 Connector		
Supply Voltage		12-24 VDC			12-24 VDC		
Near Limit/Alarm	Far Limit/Alarm						
95.3 mm	102 mm						
	Pump-out	SM602A-404-00	SM602A-404-00S	SM602A-404-00FP	SM652A-404-00	SM652A-404-00S	SM652A-404-00FP
	Pump-in		SM602A-404-10			SM652A-404-10	
	127 mm						
	Pump-out	SM602A-520-00			SM652A-520-00		
	Pump-in	SM602A-520-10			SM652A-520-10		
76.2 mm	102 mm						
	Pump-out	SM602A-416-00	SM602A-416-00S	SM602A-416-00FP	SM652A-416-00	SM652A-416-00S	SM652A-416-00FP
	Pump-in	SM602A-416-10			SM652A-416-10		
	127 mm						
	Pump-out	SM602A-532-00			SM652A-532-00		
	Pump-in	SM602A-532-10			SM652A-532-10		
51 mm	102 mm						
	Pump-out	SM602A-432-00	SM602A-432-00S	SM602A-432-00FP	SM652A-432-00	SM652A-432-00S	SM652A-432-00FP
	Pump-in	SM602A-432-10	SM652A-432-10				
76.2 mm	127 mm						
	Pump-out		SM602A-532-00			SM652A-532-00	
	Pump-in		SM602A-532-10			SM652A-532-10	
102 mm	152 mm						
Dual Alarm Normally Open		SM602A-632-20			SM652A-632-20		

(\*) All possible sensor configurations are not listed here

Accessories for SM602 Series					
Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					

Model Number*							
Characteristics							
Housing Style/Material		18 mm ULTEM®	18 mm Stainless	Flat-profile ULTEM®	18 mm ULTEM®	18 mm Stainless	Flat-profile ULTEM®
Connection Type		3 m Cable			M12 Connector		
Supply Voltage		15-24 VDC			15-24 VDC		
Range	Window						
102 mm	70 mm						
	Inv. 0-10V 2.5ms cycle	SM606A-444-00	SM606A-444-00S	SM606A-444-00FP	SM656A-444-00	SM656A-444-00S	SM656A-444-00FP
	Dir. 0-10 V 2.5 ms cycle	SM606A-444-01	SM606A-444-01S	SM606A-444-01FP	SM656A-444-01	SM656A-444-01S	SM656A-444-01FP
	Inv. 0-10V 1.5 ms cycle	SM606A-444-02	SM606A-444-02S	SM606A-444-02FP	SM656A-444-02	SM656A-444-02S	SM656A-444-02FP
	Inv. 0-10V 2.5 ms cycle(1)	SM606A-444-03	SM606A-444-03S	SM606A-444-03FP	SM656A-444-03	SM656A-444-03S	SM656A-444-03FP
	Dir. 0-10V 1.5 ms cycle	SM606A-444-04	SM606A-444-04S	SM606A-444-04FP	SM656A-444-04	SM656A-444-04S	SM656A-444-04FP
152 mm	117 mm						
	Inv. 0-10V 2.5ms cycle	SM606A-674-00	SM606A-674-00S	SM606A-674-00FP	SM656A-674-00	SM656A-674-00S	SM656A-674-00FP
	Dir. 0-10 V 2.5 ms cycle	SM606A-674-01	SM606A-674-01S	SM606A-674-01FP	SM656A-674-01	SM656A-674-01S	SM656A-674-01FP
	Inv. 0-10V 1.5 ms cycle	SM606A-674-02	SM606A-674-02S	SM606A-674-02FP	SM656A-674-02	SM656A-674-02S	SM656A-674-02FP
	Inv. 0-10V 2.5 ms cycle(1)	SM606A-674-03	SM606A-674-03S	SM606A-674-03FP	SM656A-674-03	SM656A-674-03S	SM656A-674-03FP
	Dir. 0-10V 1.5 ms cycle	SM606A-674-04	SM606A-674-04S	SM606A-674-04FP	SM656A-674-04	SM656A-674-04S	SM656A-674-04FP

(1) Loss of echo on signal hold

(\*) All possible sensor configurations are not listed here

### SM606S

All the above 0-10 V version sensors are available with a 4-20 mA output in the flat profile housing only. To order, replace the number "0" in the reference by "1".

Example: For pre-cabled versions: SM606A-444-00FP becomes SM606A-444-10FP.

For connector versions: SM656A-444-00FP becomes SM656A-444-10FP.

Sensing distances: refer to [www.SESensors.com](http://www.SESensors.com)

Accessories for SM606 Series					
Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Other cable lengths are available					

## SM607 Small Target Sensing

Model Number*							
Characteristics							
Housing Style/Material		18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®	18 mm ULTEM®	Stainless Steel	Flat-profile ULTEM®
Connection Type		3 m Cable			M12 Connector		
Supply Voltage		12-24 VDC			12-24 VDC		
Range	Window						
38.1 mm	12.7 mm						
	Straight label edge NO	SM607A-A08-01	SM607A-A08-01S	SM607A-A08-01FP	SM657A-A08-01	SM657A-A08-01S	SM657A-A08-01FP
	Circular label edge NO	SM607A-A08-02	SM607A-A08-02S	SM607A-A08-02FP	SM657A-A08-02	SM657A-A08-02S	SM657A-A08-02FP
51 mm	3 mm						
		SM607A-202-00	SM607A-202-00S	SM607A-202-00FP	SM657A-202-00	SM657A-202-00S	SM657A-202-00FP
	6 mm						
		SM607A-204-00	SM607A-204-00S	SM607A-204-00FP	SM657A-204-00	SM657A-204-00S	SM657A-204-00FP
	13 mm						
		SM607A-208-00	SM607A-208-00S	SM607A-208-00FP	SM657A-208-00	SM657A-208-00S	SM657A-208-00FP

(\*) All possible sensor configurations are not listed here

Accessories for SM607 Series					
Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					

# Ultrasonic Sensors Proximity Sensors

# SM900 Series

1



30 mm ULTEM® (1 & 2 m)



30 mm Stainless (1 & 2 m)



30 mm ULTEM® (8 m)

Model Number*				
<b>Characteristics</b>				
Housing Style/Material	30 mm ULTEM®	30 mm Stainless	30 mm ULTEM®	30 mm Stainless
Connection Type	3 m Cable		M12 Connector	
Supply Voltage	12-24 VDC		12-24 VDC	
Sensing Range				
51 mm - 1 m				
NO NPN & PNP	SM900A-100000	SM900A-100000S	SM950A-100000	SM950A-100000S
NC NPN & PNP	SM900A-110000	SM900A-110000S	SM950A-110000	SM950A-110000S
Complementary NPN	SM900A-120000	SM900A-120000S	SM950A-120000	SM950A-120000S
Complementary PNP	SM900A-130000	SM900A-130000S	SM950A-130000	SM950A-130000S
Object Proximity	SM900A-100000OB	SM900A-100000OBS	SM950A-100000OB	SM950A-100000OBS
120 mm - 2 m				
NO NPN & PNP	SM900A-400000	SM900A-400000S	SM950A-400000	SM950A-400000S
NC NPN & PNP	SM900A-410000	SM900A-410000S	SM950A-410000	SM950A-410000S
Complementary NPN	SM900A-420000	SM900A-420000S	SM950A-420000	SM950A-420000S
Object Proximity	SM900A-400000OB	SM900A-400000OBS	SM950A-400000OB	SM950A-400000OBS
120 mm - 1 m				
NO NPN & PNP Stainless Steel Transducer		SM9000A-700000STS		SM9500A-700000STS
203 mm - 8 m				
NO NPN & PNP	SM9000A-800000		SM9500A-800000	

(\*) All possible sensor configurations are not listed here

## Accessories for SM900 Series

Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m

Additional cable lengths are available



30 mm ULTEM® (1 & 2 m)



30 mm Stainless (1 & 2 m)



30 mm ULTEM® (8 m)

**Model Number\***

**Characteristics**

Housing Style/Material	30 mm ULTEM®	30 mm Stainless	30 mm ULTEM®	30 mm Stainless
Connection Type	3 m Cable		M12 Connector	
Supply Voltage	12-24 VDC		12-24 VDC	
Sensing Range				
<b>51 m - 1 m</b>				
Pump-out latch	SM902A-100000	SM902A-100000S	SM952A-100000	SM952A-100000S
w/ Loss of Echo Hold	SM902A-100000LE	SM902A-100000LES	SM952A-100000LE	SM952A-100000LES
Pump-in latch	SM902A-110000	SM902A-110000S	SM952A-110000	SM952A-110000S
w/ Loss of Echo Hold	SM902A-110000LE	SM902A-110000LES	SM952A-110000LE	SM952A-110000LES
Dual Setpoint (NPN)	SM902A-124000	SM902A-124000S	SM952A-124000	SM952A-124000S
Pump-in latch, w/alarm (NPN)	SM902A-144100	SM902A-144100S	SM952A-144100	SM952A-144100S
Pump-in latch w/setpoint (NPN)	SM902A-164000	SM902A-164000S	SM952A-164000	SM952A-164000S
<b>120 mm - 2 m</b>				
Pump-out latch	SM902A-400000	SM902A-400000S	SM952A-400000	SM952A-400000S
w/ Loss of Echo Hold	SM902A-400000LE	SM902A-400000LES	SM952A-400000LE	SM952A-400000LES
Pump-in latch	SM902A-410000	SM902A-410000S	SM952A-410000	SM952A-410000S
w/ Loss of Echo Hold	SM902A-410000LE	SM902A-410000LES	SM952A-410000LE	SM952A-410000LES
Dual Setpoint (NPN)	SM902A-424000	SM902A-424000S	SM952A-424000	SM952A-424000S
Pump-in latch, w/alarm (NPN)	SM902A-444000	SM902A-444000S	SM952A-444000	SM952A-444000S
Pump-out latch, w/alarm (PNP)	SM902A-4560000	SM902A-4560000S	SM952A-4560000	SM956A-4560000
Pump-in latch w/setpoint (NPN)	SM902A-464000	SM902A-464000S	SM952A-464000	SM952A-464000S
<b>120 mm - 1 m</b>				
Pump-out latch Stainless Steel Transducer		SM902A-700000STS		SM952A-700000STS
Pump-in latch Stainless Steel Transducer		SM902A-710000STS		SM952A-710000STS
Dual Setpoint (NPN) Stainless Steel Transducer		SM902A-724000STS		SM952A-724000STS
<b>203 mm - 8 m</b>				
Pump-in latch	SM902A-810000		SM952A-810000	
Dual Setpoint (NPN)	SM902A-824000		SM952A-824000	

(\* All possible sensor configurations are not listed here

**Accessories for SM902 Series**

Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					



30 mm ULTEM® (1 & 2 m)



30 mm Stainless (1 & 2 m)



30 mm ULTEM® (8 m)

Model Number\*

Characteristics

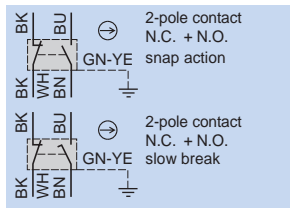
Housing Style/Material	30 mm ULTEM®	30 mm Stainless	30 mm ULTEM®	30 mm Stainless
Connection Type	3 m Cable		M12 Connector	
Supply Voltage	12-24 VDC		12-24 VDC	
Sensing Range	51 mm - 1 m			
<b>Inverse 0-10V</b>				
Min output state on loss of echo	SM906A-100000	SM906A-100000S	SM956A-100000	SM956A-100000S
Hold on loss of echo min. power up	SM906A-102000	SM906A-102000S	SM956A-102000	SM956A-102000S
Hold on loss of echo max. power up	SM906A-103000	SM906A-103000S	SM956A-103000	SM956A-103000S
<b>Direct 0-10V</b>				
Max output state on loss of echo	SM906A-111000	SM906A-111000S	SM956A-111000	SM956A-111000S
<b>Inverse 4-20 mA</b>				
Min output state on loss of echo	SM906A-120000	SM906A-120000S	SM956A-120000	SM956A-120000S
Hold on loss of echo min. power up	SM906A-122000	SM906A-122000S	SM956A-122000	SM956A-122000S
<b>Direct 4-20 mA</b>				
Hold on loss of echo min. power up	SM906A-132000	SM906A-132000S	SM956A-132000	SM956A-132000S
120 mm - 2 m				
<b>Inverse 0-10V</b>				
Min output state on loss of echo	SM906A-400000	SM906A-400000S	SM956A-400000	SM956A-400000S
Hold on loss of echo min. power up	SM906A-402000	SM906A-402000S	SM956A-402000	SM956A-402000S
Hold on loss of echo max. power up	SM906A-403000	SM906A-403000S	SM956A-403000	SM956A-403000S
<b>Direct 0-10V</b>				
Max output state on loss of echo	SM906A-411000	SM906A-411000S	SM956A-411000	SM956A-411000S
<b>Inverse 4-20 mA</b>				
Min output state on loss of echo	SM906A-420000	SM906A-420000S	SM956A-420000	SM956A-420000S
Hold on loss of echo min. power up	SM906A-422000	SM906A-422000S	SM956A-422000	SM956A-422000S
<b>Direct 4-20 mA</b>				
Hold on loss of echo min. power up	SM906A-432000	SM906A-432000S	SM956A-432000	SM956A-432000S
120 mm - 1 m				
<b>Inverse 4-20 mA</b>				
Max output state on loss of echo Stainless Steel Transducer		SM906A-72100STS		SM956A-72100STS
Hold on loss of echo max power up Stainless Steel Transducer		SM906A-72300STS		SM956A-72300STS
203 mm - 8 m				
<b>Inverse 0-10V</b>				
Min output state on loss of echo	SM906A-800000		SM956A-800000	
<b>Inverse 4-20 mA</b>				
Min output state on loss of echo	SM906A-820000		SM956A-820000	
<b>Direct 4-20 mA</b>				
Hold on loss of echo min. power up	SM906A-832000		SM956A-832000	

(\*) All possible sensor configurations are not listed here

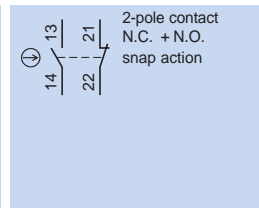
Accessories for SM900 Series

Straight	Connection type	Length	90°	Connection type	Length
XSCD101Y	M12 connector	2 m	XSCD111Y	M12 connector	2 m
Additional cable lengths are available					

### XCMD / XCMN



### XCKT

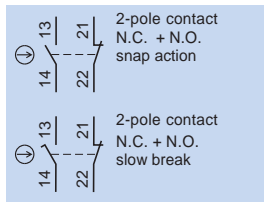


### Miniature type XCMD metal, pre-cabled

Type of operator	Metal end plunger	Steel roller plunger	Plastic roller lever	Variable length plastic roller lever	M12 head metal end plunger
Actuation speed (in m/s)	0.5	0.5	1.5	1.5	0.5
Switches conforming to standard IEC 60947-5-1 section 3	⊕	⊕	⊕	⊕	⊕
Degree of protection conforming to IEC 60529	IP66 and IP67				
Rated operational characteristics	AC 15; B 300 (Ue = 240 V, Ie = 1.5 A) / DC 13; R 300 (Ue = 250 V, Ie = 0.1 A)				
Cable entry	Pre-cabled, adjustable direction, length = 1 m (2 m and 5 m lengths available)				
Mounting holes dia. or head mounting dia.	20 mm				20 mm or M12 x 1
Body dimensions W x D x H	30 x 16 x 50 mm				
Complete switch (2-pole N.C. + N.O. snap action)	<b>XCMD2110L1</b>	<b>XCMD2102L1</b>	<b>XCMD2115L1</b>	<b>XCMD2145L1</b>	<b>XCMD21F0L1</b>
(2-pole N.C. + N.O. break before make, slow break)	<b>XCMD2510L1</b>	<b>XCMD2502L1</b>	<b>XCMD2515L1</b>	<b>XCMD2545L1</b>	<b>XCMD25F0L1</b>

⊕ Positive opening operation

### XCKP



### Compact type XCKD metal and XCKP plastic conforming to standard EN 50047

Type of operator	Metal end plunger	Steel roller plunger	Plastic roller lever, horizontal actuation	M18 head metal end plunger	M18 head steel roller plunger
Actuation speed (in m/s)	0.5	0.5	1	0.5	0.5
Switches conforming to standard IEC 60947-5-1 section 3	⊕	⊕	⊕	⊕	⊕
Degree of protection conforming to IEC 60529	IP66 and IP67				
Rated operational characteristics	AC 15; A 300 (Ue = 240 V, Ie = 3 A) / DC 13; Q 300 (Ue = 250 V, Ie = 0.27 A)				
Cable entry	1 tapped entry for 1/2 in. NPT cable gland				
Mounting holes dia. or head mounting dia.	20 mm	20 mm	20 mm	20mm or M18 x 1	20 mm or M18 x 1
Body dimensions W x D x H	31 x 30 x 65 mm				
<b>Metal switches</b>					
Complete switch (2-pole N.C. + N.O. snap action)	<b>XCKD2110N12</b>	<b>XCKD2102N12</b>	<b>XCKD2121N12</b>	<b>XCKD21H0N12</b>	<b>XCKD21H2N12</b>
(2-pole N.C. + N.O. break before make, slow break)	<b>XCKD2510N12</b>	<b>XCKD2502N12</b>	<b>XCKD2521N12</b>	<b>XCKD25H0N12</b>	<b>XCKD25H2N12</b>
<b>Plastic, double insulated switches</b>					
Complete switch (2-pole N.C. + N.O. snap action)	<b>XCKP2110N12</b>	<b>XCKP2102N12</b>	<b>XCKP2121N12</b>	<b>XCKP21H0N12</b>	<b>XCKP21H2N12</b>
(2-pole N.C. + N.O. break before make, slow break)	<b>XCKP2510N12</b>	<b>XCKP2502N12</b>	<b>XCKP2521N12</b>	<b>XCKP25H0N12</b>	<b>XCKP25H2N12</b>

⊕ Positive opening operation





		Compact XCKT, plastic, 2 cable entries				
M12 head steel roller plunger	Cat whisker	Metal end plunger	Metal roller plunger	Plastic roller lever	Plastic roller lever, horizontal actuation	Cat whisker
0.1	1	0.5	0.5	1.5	1	1
⊕	–	⊕	⊕	⊕	⊕	–
IP66 and IP67						
AC 15; A 300 (Ue = 240 V, Ie = 3 A) / DC 13; Q 300 (Ue = 250 V, Ie = 0.27 A)						
2 tapped entries for 1/2 in. NPT cable gland						
M12	20 mm	20 or 40 mm				
58 x 30 x 51 mm						
XCMD21F2L1	XCMD2106L1	XCKT2110N12	XCKT2102N12	XCKT2118N12	XCKT2121N12	XCKT2106N12
XCMD25F2L1	XCMD2506L1	–	–	–	–	–








				X CPR and X CDR with manual reset				
Plastic roller lever	Variable length plastic roller lever	Plastic roller lever Ø 50 mm	Cat whisker	Metal end plunger	Steel roller lever	Plastic roller lever plunger, horizontal actuation	Plastic roller lever plunger, vertical actuation	Plastic roller lever
1.5	1.5	1.5	1	0.5	0.5	1	1	1.5
⊕	⊕	⊕	–	⊕	⊕	⊕	⊕	⊕
IP66 and IP67								
AC 15; A 300 (Ue = 240 V, Ie = 3 A) / DC 13; Q 300 (Ue = 250 V, Ie = 0.27 A)								
1 tapped entry for 1/2 in. NPT cable gland								
20 mm	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
31 x 30 x 95 mm								
XCKD2118N12	XCKD2145N12	XCKD2139N12	XCKD2106N12	XCDR2110N12	XCDR2102N12	XCDR2121N12	XCDR2127N12	XCDR2118N12
XCKD2518N12	XCKD2545N12	XCKD2539N12	XCKD2506N12	XCDR2510N12	XCDR2502N12	XCDR2521N12	XCDR2527N12	XCDR2518N12
XCKP2118N12	XCKP2145N12	XCKP2139N12	XCKP2106N12	X CPR2110N12	X CPR2102N12	X CPR2121N12	X CPR2127N12	X CPR2118N12
XCKP2518N12	XCKP2545N12	XCKP2539N12	XCKP2506N12	X CPR2510N12	X CPR2502N12	X CPR2521N12	X CPR2527N12	X CPR2518N12

### Heads - common to miniature and compact bodies



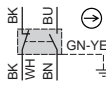
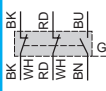
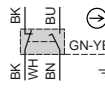
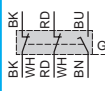
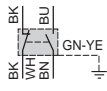
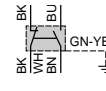
#### Metal plungers and multi-directional heads

Description	Metal end plunger	Metal end plunger with elastomer boot	Steel roller plunger	Retractable steel roller lever plunger	Plastic roller lever, horizontal actuation
					
	ZCE10	ZCE11	ZCE02	ZCE24 (2)	ZCE21

#### Metal rotary heads and levers

Description	Rotary head without lever, spring return, for actuation from LH or RH side	Plastic roller lever, track: 24/31 mm (ZCMD) 29/36 mm (ZCD/P/T)	Steel roller lever, track: 24/31 mm (ZCMD) 29/36 mm (ZCD/P/T)	Plastic roller lever, track: 16/39 mm (ZCMD) 21/44 mm (ZCD/P/T)	Steel roller lever, track: 16/39 mm (ZCMD) 21/44 mm (ZCD/P/T)
					
	ZCE01	ZCY15 (2)	ZCY16 (2)	ZCY25 (2)	ZCY26 (2)

### Bodies, metal

	Miniature					
						
Type of contact	 2-pole N.C. + N.O. Snap action	 3-pole NC.+N.C. +N.O. Snap action	 2-pole N.C. + N.O. Slow break	 3-pole NC.+NC.+NO Slow break	 2-pole N.C. + N.O. Snap action M12 5-pin connector	 1 single-pole Snap action M12 4-pin connector
	ZCMD21	ZCMD39	ZCMD25	ZCMD37	ZCMD21C12	ZCMD21M12

### Cable connection for miniature bodies

Specific pre-cabled connection components					Option: pre-wired M12 connector, L = 2 m	
L1 = 1 m	ZCMC21L1	ZCMC39L1	ZCMC25L1	ZCMC37L1		
L2 = 2 m	ZCMC21L2	ZCMC39L2	ZCMC25L2	ZCMC37L2		
L3 = 5 m	ZCMC21L5	ZCMC39L5	ZCMC25L5	ZCMC37L5	XSZCD1501Y	XSZCD101Y

⊕ Positive opening operation

## and compact switches

Plastic roller lever, vertical actuation	M12 head metal plunger	M18 head metal plunger	M12 head steel roller plunger	M18 head steel roller plunger	Spring lever	Spring lever with plastic tip	Cat whisker
<b>ZCE27</b>	<b>ZCEF0 (2)</b>	<b>ZCEH0 (1)</b>	<b>ZCEF2 (2)</b>	<b>ZCEH2 (1)</b>	<b>ZCE08</b>	<b>ZCE07</b>	<b>ZCE06</b>

Plastic roller lever, track: 20/36 mm (ZCMD) 24/40 mm (ZCD/P/T)	Steel roller lever, track: 20/36 mm (ZCMD) 24/40 mm (ZCD/P/T)	Ceramic roller lever	Variable length plastic roller lever	Round, glass fiber rod lever Ø 3 mm L = 125 mm	Metal spring lever	Plastic roller lever Ø 50 mm	Adjustable plastic roller lever Ø 50 mm
<b>ZCY18 (1)</b>	<b>ZCY19 (1)</b>	<b>ZCY22</b>	<b>ZCY45</b>	<b>ZCY55</b>	<b>ZCY91</b>	<b>ZCY39</b>	<b>ZCY49</b>

(1) Recommended for use with body: **ZCD.../ ZCP.../ ZCT...**

(2) Recommended for use with body: **ZCMD...**

### Compact

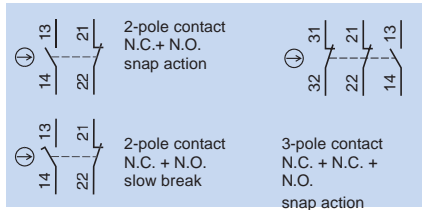
Type of contact														
Metal body	<b>ZCD21</b>	<b>ZCD39</b>	<b>ZCD25</b>	<b>ZCD37</b>	<b>ZCD21M12</b>	-	-	-	-	-	-	-	-	-
Plastic body	<b>ZCP21</b>	<b>ZCP39</b>	<b>ZCP25</b>	<b>ZCP37</b>	-	<b>ZCP21M12</b>	<b>ZCT21N12</b>	<b>ZCT21N12</b>	<b>ZCT21N12</b>	<b>ZCT25N12</b>	<b>ZCT25N12</b>	<b>ZCT25N12</b>	<b>ZCT25N12</b>	<b>ZCT25N12</b>

### Connection of compact bodies

Removable cable gland (3)							Option: pre-wired M12 connector, L = 2 m	
Description	For ISO M16 cable gland	For ISO M20 cable gland	For Pg 11 cable gland	For Pg 13.5 cable gland	For 1/2" NPT cable gland	For PF 1/2 (G12) cable gland		
Metal	<b>ZCDEP16</b>	<b>ZCDEP20</b>	<b>ZCDEG11</b>	<b>ZCDEG13</b>	<b>ZCDEN12</b>	<b>ZCDEF12</b>	<b>XSZCD1501Y</b>	<b>XSZCD101Y</b>
Plastic	<b>ZCPEP16</b>	<b>ZCPEP20</b>	<b>ZCPEG11</b>	<b>ZCPEG13</b>	<b>ZCPEN12</b>	<b>ZCPEF12</b>	<b>XSZCD1501Y</b>	<b>XSZCD101Y</b>

## Limit switches Classic - XCKJ, complete switches

### XCKJ, XCKM



Type XCKJ metal, fixed body, conforming to standard EN 50041						
Type of operator	Metal end plunger	Steel roller plunger	Plastic roller lever	Variable length plastic roller lever	Polyamide, Ø 6 mm rod lever	
Actuation speed (in m/s)	0.5	1	1.5	1.5	1.5	
Degree of protection conforming to IEC 60529	IP66					
Rated operational characteristics	AC 15; A 300 (Ue = 240 V, Ie = 3 A) / DC 13; Q 300 (Ue = 250 V, Ie = 0.27 A)					
Cable entry (1)	1 tapped entry for 1/2 in. NPT cable gland					
Mounting holes (mm)	30 x 60					
Body dimensions (mm) W x D x H	40 x 44 x 77					
Complete switch	(2-pole N.C. + N.O. snap action)	⊖ XCKJ161	⊖ XCKJ167	⊖ XCKJ10511	XCKJ10541	XCKJ10559
	(2-pole N.C. + N.O. break before make, slow break)	⊖ XCKJ561	⊖ XCKJ567	⊖ XCKJ50511	XCKJ50541	XCKJ50559

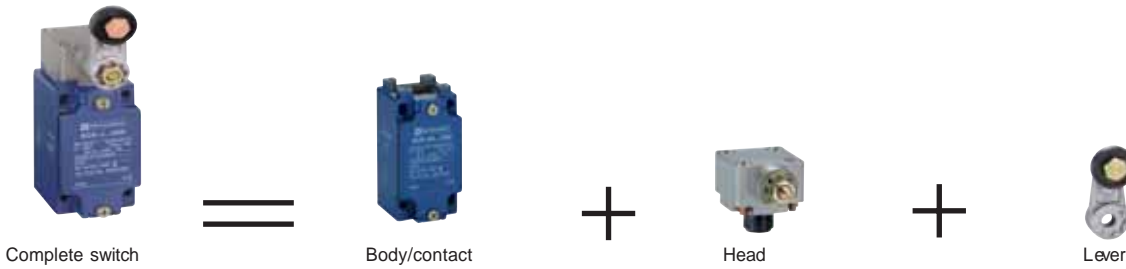
## Customized assembly of Classic XCKJ switches body/contact sub-assemblies



Type XCKJ metal, body only					
Type of contact					
Cable entry	1 tapped entry for ISO M20 X 1.5 cable gland				
Body with contact block	⊖ XCKJ1	⊖ XCKJ5	⊖ XCKJD39	⊖ XCKJD37	⊖ XCKJ1D
Contact block only	⊖ XE2SP2151	⊖ XE2NP2151	⊖ XE3SP2141	⊖ XE3NP2141	⊖ XE2SP2151

# Customized assembly of Classic XCKJ switches

## Operating heads, complete or for customer assembly



### Plunger or multi-directional heads

- with reinforced steel roller end plunger
- with metal end plunger
- with thermoplastic roller lever plunger, 1 direct. of actuation
- with steel roller lever plunger, 1 direct. of actuation
- with steel roller end plunger
- with steel ball bearing end plunger



Catalog number    ⊕ ZCKE67    ⊕ ZCKE61    ⊕ ZCKE21    ⊕ ZCKE23    ⊕ ZCKE62    ⊕ ZCKE66

- with metal side plunger
- with steel roller side plunger
- with spring rod
- with Cat whisker



Catalog number    ⊕ ZCKE63    ⊕ ZCKE64    ⊕ ZCKE08    ⊕ ZCKE06

### Separate rotary heads and levers

- spring return for actuation from left AND right or left OR right
- lever with thermoplastic roller (1)
- lever with steel roller
- variable length lever with thermoplastic
- variable length lever with steel roller (1)
- rod, Ø 6 mm thermoplastic L = 200 mm (1)
- spring-metal rod lever (2)



Catalog number    ⊕ ZCKE05    ⊕ ZCKY11    ⊕ ZCKY13    ⊕ ZCKY41    ⊕ ZCKY43    ⊕ ZCKY59    ⊕ ZCKY91

- stay put for actuation from left AND right
- forked arm lever with thermoplastic rollers, 1 track (1)
- forked arm lever with thermoplastic rollers, 2 track (1)



Catalog number    ⊕ ZCKE09    ⊕ ZCKY71    ⊕ ZCKY61

(1) Adjustable throughout 360° in 5° steps, or in 45° steps by reversing the lever mounting.  
 (2) Adjustable throughout 360° in 5° steps, or in 90° steps by reversing the notched washer.

## Sensors for pressure control

### Electronic sensors XMLE

Electrical connection by M12 connector



Setting range (psi) (1)	-14.5 to 0	0 to 145	0 to 1450	0 to 3625	0 to 8702
Fluids controlled	Hydraulic oils, air, fresh water, sea water, corrosive fluids from -13 to +176 °C				
Ambient air temperature	-15 to +80 °C				
Degree of protection (conforming to IEC 60529)	IP65				
Voltage limits	24 VDC (17–33 VDC)				
Dimensions (mm) Ø x L	Ø 40 x 90 (not including connector)				
Fluid connection (1)	1/4" NPT male				
Electrical connection (2)	DIN 43650 connector				
Type of output (3)	Transmitter	4–20 mA, 2-wire			
	Pressure switch	PNP or NPN, normally closed (N.C.)			
Analog output 4–20 mA	XMLE010U1C2	XMLE100U1C2	XMLE250U1C2	XMLE600U1C2	
NPN output	XMLE010U1C3	XMLE100U1C3			

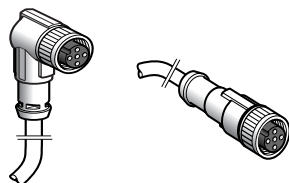
(1) Other fluid connctions, please consult us.

(2) Other types of connection, please consult us.

(3) Other types of output; 0–5 V, 0–10 V, etc., please consult us.

### Suitable female plug-in connectors

#### Pre-wired connectors L = 5 m (without LED)

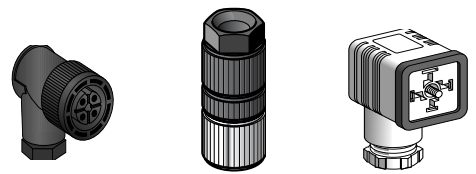


elbowed

straight

M12 XZCP1241L5 XZCP1141L5

#### Other Connectors



screw terminal

Snap-C

DIN 43650A

XZCC12FCM40B XZCC12FDM40V XZCC43FCP40B



# Sensors for pressure control

## Electronic sensors XMLF

Nautilus

1



Setting range (psi) (1)	lower limit (PB) : vacuum switches upper limit (PH) : pressure switches	-1.16 to -14.5	1.16 to 14.5	2.90 to 36	11.6 to 145	46 to 580
Ambient air temperature		-25 to +80 °C				
Degree of protection (conforming to IEC 60529)		IP67				
Voltage limits (V)		24 VDC (17 to 33 VDC)				
Dimensions (mm) H x W x D		113 x 46 x 58				
Fluid connection		1/4" NPT female (2)				
Electrical connection		M12 connector				
<b>Configurable with digital display, connection by M12 connector (3)</b>						
Analog and solid-state output 200 mA	4 to 20 mA	XMLFM01D2026	XMLF001D2026	XMLF002D2026	XMLF010D2026	XMLF040D2026
	0 to 10 V	XMLFM01D2126	XMLF001D2126	XMLF002D2126	XMLF010D2126	XMLF040D2126
Dual stage pressure switches, solid-state output 200 mA		XMLFM01D2036	XMLF001D2036	XMLF002D2036	XMLF010D2036	XMLF040D2036
Analog sensors	4 to 20 mA	XMLFM01D2016	XMLF001D2016	XMLF002D2016	XMLF010D2016	XMLF040D2016
	0 to 10 V	XMLFM01D2116	XMLF001D2116	XMLF002D2116	XMLF010D2116	XMLF040D2116
Permissible differential (psi) (pressure switches)	Min at low setting	0.44	0.44	1.09	4.4	17.4
	Min at high setting	0.44	0.44	1.09	4.4	17.4
	Max at high setting	13.8	13.8	34.5	138	551



Setting range (psi) (1)	upper limit (PH) : pressure switches	116 to 1450	186 to 2320	290 to 3625	464 to 5800	696 to 8700
Ambient air temperature		-25 to +80 °C				
Degree of protection (conforming to IEC 60529)		IP67				
Voltage limits (V)		24 VDC (17 to 33 VDC)				
Dimensions (mm) H x W x D		113 x 46 x 58				
Fluid connection		1/4" NPT female				
Electrical connection		M12 connector				
<b>Configurable with digital display, connection by M12 connector (1)</b>						
Analog and solid-state output 200 mA	4 to 20 mA	XMLF100D2026	XMLF160D2026	XMLF250D2026	XMLF400D2026	XMLF600D2026
	0 to 10 V	XMLF100D2126	XMLF160D2126	XMLF250D2126	XMLF400D2126	XMLF600D2126
Dual stage pressure switches, solid-state output 200 mA		XMLF100D2036	XMLF160D2036	XMLF250D2036	XMLF400D2036	XMLF600D2036
Analog sensors	4 to 20 mA	XMLF100D2016	XMLF160D2016	XMLF250D2016	XMLF400D2016	XMLF600D2016
	0 to 10 V	XMLF100D2116	XMLF160D2116	XMLF250D2116	XMLF400D2116	XMLF600D2116
Permissible differential (psi) (pressure switches)	Min at low setting	44	70	109	174	261
	Min at high setting	44	70	109	174	261
	Max at high setting	1378	2204	3444	5510	8265

(1) Also available in 120 VAC version with 2.5 A relay output and SAE 7/8-16 UN connector.