Sensors

Photoelectric, Proximity and Ultrasonic Sensors and Connector Cables

Catalog
9006CT0606R12/076

File 9006

08

Schneider Electric
Building a New Electric World

A complete range of **innovative** and much more **simple to use** sensors

Benefit from Telemecanique's and Hyde Park major innovations:

Osiconcept™
Offering **s**implicity through **i**nnovation

A worldwide detection first for improving productivity.

A complete offer for resolving your most commonly encountered detection problems:

- product selection simplified
- product availability simplified
- installation and setting-up simplified
- maintenance simplified
- detection simplified using a single supplier.

Improved simplicity for improved productivity.

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

Improve customer 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. **Osi**concept 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.

Telemecanique®
Photo-electric sensors

> A single product that automatically adapts to all conditions

A simple press on the button automatically configures the sensor and provides optimal performance for the particular conditions.

Telemecanique
Inductive proximity sensors

> A single product that automatically adapts to all installation environments

A simple press on the button automatically configures the sensor and provides optimal performance irrespective of the installation method (flush, non flush).

Ositrack®
RFID Identification System

> A single product that adapts to all application situations

Hyde Park®
Ultrasonic sensors

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

A simple press on the button automatically configures the sensor to its correct detection mode and optimal detection zone.

Contents

■ **Osiris®** Photo-electric sensors *2*

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

■ **Osiprox®** Inductive proximity sensors *12*

Detection without contact of metal objects
> Sensor/object distance ≤ 60 mm (2.4”)
> Generic cylindrical and flat form products
> Specific products for particular applications

■ **Osiprox** Capacitive proximity sensors *27*

Detection of objects or liquids with a variety of mounting options
> Smaller, compact rectangular and barrel style bodies
> Sensor/object distance ≤ 20 mm (0.79”)
> Specific products for particular applications

■ **Ositrack** Radio Frequency Identification System *28*

Offering object traceability, identification, and access control
> Logistics: dispatch, receipt, transit, etc
> Tracking and sorting of components
> Access Control

■ **Hyde Park** Ultrasonic sensors *30*

Detection without contact of any object of any material
> Detection from a few millimeters up to 8 m (26.2’)
> Extra large range to ensure finding the right product
> Specific products for particular applications

NOTE: Sensors described in this catalog are designed to be used for standard industrial presence sensing applications. These sensors do not include the self-checking redundant circuitry necessary to allow their use in safety applications.

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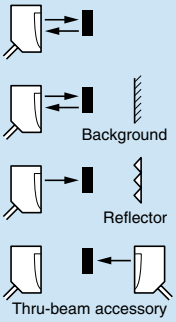
Photo-electric sensors



Osiconcept™
Offering **s**implicity through **i**nnovation

A single product that automatically adapts to all conditions.

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

Osiconcept

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		Design 18 plastic	Design 18 metal
Usable sensing distance	Diffuse	**0.3** m (0.98')	**0.3** m (0.98')
	Diffuse with background supp.	**0.12** m (0.39')	**0.12** m (0.39')
	Polarized retroreflective	**2** m (6.6')	**2** m (6.6')
	Thru-beam	**15** m (49')	**15** m (49')
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 64	M / M18 x 64
Common characteristics		Adjustment of sensing distance: **using teach mode** / Setting-up assistance LEDs (⊗): yes / Temperature	

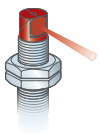
Sensors for DC applications (solid-state output: transistor)

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

Connection		**Pre-cabled, PvR (2 m)**	
T / R	programmable, **NO / NC** with time delay	–	–
Connection		**Screw terminals**	
T / R	programmable, **NO / NC** with time delay	–	–
LED output state indicator (⊗) / power on LED (⊗)		–	–
Switching frequency (Hz)		–	–
Time delay(s)		–	–
Thru-beam transmitter	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

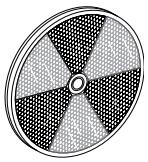


90° head
All the above Osiris Design 18 sensors are available with an integral 90° head.
To order, replace the letter"N" in the reference by"W".
Example: For pre-cabled versions: XUB0APS**N**L2 becomes XUB0APS**W**L2.
For connector versions: XUB0APS**N**M12 becomes XUB0APS**W**M12.
Sensing distances: refer to www.SESensors.com

Accessories

Reflectors

XUZC24

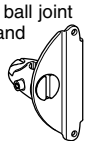

XUZC80

XUZC50

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

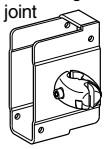
3D Mounting with ball joint

Bracket with ball joint for sensors and reflector XUZC50



for	
XUB -	XUZB2003
XUM -	XUZM2003
XUK -	XUZK2003
XUX -	XUZX2003

Protective housing with ball joint



for	
XUM -	XUZM2004
XUK -	XUZK2004
XUX -	XUZX2004

M12 rod for ball joint

XUZ2001

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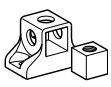
	Miniature design	Compact design 50 x 50	Compact design	PhotoVirtu
	0.4 m (1.3')	**1.0** m (3.28')	**2** m (6.6')	**0.3** m (0.98')
	0.10 m (0.32')	**0.3** m (0.98')	**1.3** m (4.3')	**0.12** m (0.39')
	3 m (9.8')	**4** m (13.1')	**11** m (36')	**2** m (6.6')
	14 m (45.8')	**30** m (98.4')	**40** m (131.2')	**15** m (49')
	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 (-13 to 131° F) / Degree of protection (conforming to IEC 60529): IP65, IP67 (XUK: IP65)			
	XUM0APSAL2	–	–	–
	XUM0ANSAL2	–	–	–
	–	XUK0AKSAL2	–	–
	M8 connector	**M12 connector**		**M12 connector**
	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	–

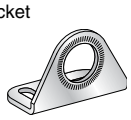
Simple Mounting

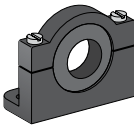
Mounting support for M12 rod



XUZ2003

Single bracket

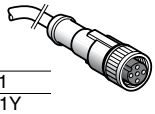




for	standard	with ball joint
XUB -	XUZA118 (stnls. steel)	XUZA218 (plastic)
XUM -	XUZA50	–
XUK -	XUZA51	–
XUX -	XUZX2000	–

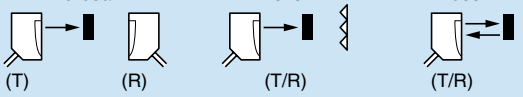
Suitable female plug-in connectors, including pre-wired versions

	length 2 m without LED	pre-wired, 90°	pre-wired, straight
M8		XSZCS151	XSZCS141
M12		XSZCD111Y	XSZCD101Y

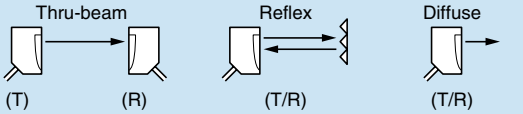


Osiris — Photo-electric sensors
Optimum

Object present detection NO Output ON / object present



No object present detection NC Output ON / no object present



		Design 18 plastic	Design 18 metal
Usable sensing distance	Diffuse	**0.6** m (1.9')	**0.6** m (1.9')
	Polarized reflex	**2** m (6.6')	**2** m (6.6')
	Reflex	**4** m (13.1')	**4** m (13.1')
	Thru-beam	**15** m (49')	**15** m (49')
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 (-13 to 131° F) / Degree of protection (conforming to IEC 60529): IP65, IP67 (XUK: IP65)	

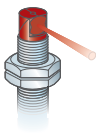
Sensors for DC applications (solid-state output: transistor)

Connection			**Pre-cabled, PvR, L = 2 m**	**M12 connector**	**Pre-cabled, PvR, L = 2 m**	**M12 connector**
Transmitter			XUB2AKSNL2T	XUB2AKSNM12T	XUB2BKSNL2T	XUB2BKSNM12T
Receiver or T/R, 3-wire PNP (1)	Diffuse, adjustable (2)	NO	XUB5APANL2	XUB5APANM12	XUB5BPANL2	XUB5BPANM12
		NC	XUB5APBNL2	XUB5APBNM12	XUB5BPBNL2	XUB5BPBNM12
	Polarized reflex	NO	XUB9APANL2	XUB9APANM12	XUB9BPANL2	XUB9BPANM12
		NC	XUB9APBNL2	XUB9APBNM12	XUB9BPBNL2	XUB9BPBNM12
	Reflex	NO	XUB1APANL2	XUB1APANM12	XUB1BPANL2	XUB1BPANM12
		NC	XUB1APBNL2	XUB1APBNM12	XUB1BPBNL2	XUB1BPBNM12
	Thru-beam receiver	NO	XUB2APANL2R	XUB2APANM12R	XUB2BPANL2R	XUB2BPANM12R
		NC	XUB2APBNL2R	XUB2APB NM12R	XUB2BPBNL2R	XUB2BPBNM12R
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			–	–	–	–
Transmitter			–	–	–	–
Receiver or T/R	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

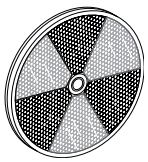


90° head
All the above Osiris Design 18 sensors are available with an integral 90° head.
To order, replace the letter"N" in the reference by"W".
Example: For pre-cabled versions: XUB5APS**N**L2 becomes XUB5APS**W**L2.
For connector versions: XUB5APS**N**M12 becomes XUB5APS**W**M12.
Sensing distances: refer to www.SESensors.com

Accessories

Reflectors

XUZC24



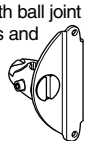
XUZC80

XUZC50

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

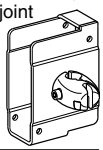
3D Mounting with ball joint

Bracket with ball joint for sensors and reflector XUZC50



for	
XUB -	XUZB2003
XUM -	XUZM2003
XUK -	XUZK2003
XUX -	XUZX2003

Protective housing with ball joint



for	
XUM -	XUZM2004
XUK -	XUZK2004
XUX -	XUZX2004

M12 rod for ball joint

XUZ2001

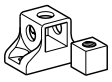
	Miniature design	Compact design 50 x 50	Compact design	PhotoVirtu
	0.4 m (1.3')	**1** m (3.2') DC or AC	**2.1** m (7.9')	**0.1** m (0.3') / **0.6** m (2')
	2 m (6.6')	**5** m (16.4') DC or **4** m (13.1') AC	**11** m (36')	**2** m (6.56')
	4 m (13.1')	**9** m (29.5') DC or **17** m (22.4') AC	**14** m (45')	–
	8 m (26.2')	**30** m (98') DC or **20** m (65.6') AC	**40** m (131.2')	**15** m (49.21')
	direct: fixing centers 25.5, M3 screws	direct: fixing centers 40 x 40, M4 screws	direct: fixing centers 30/38 to 40/50/74, M5 screws	M18 x 1 or direct: centers 24.1, M3 screws
	P / 12 x 34 x 27	P / 18 x 50 x 50	P / 30 x 92 x 71	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	XUN0AKSNM12T
	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	XUN0APSNM12
	XUM2APBNL2R	XUM2APBNM8R	XUK2APBNL2R	XUK2APBNM12R	XUX2APBNT16R	XUX2APBNM12R	XUN0ANSNM12
	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: XUB1A**P**ANL2 becomes XUB1A**N**ANL2
(2) XUN model is not adjustable
(3) For versions with 0.6 m (2') sensing distance, replace"4" by"5". Example: XUN**4**APANM12 becomes XUN**5**APANM12

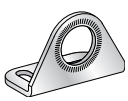
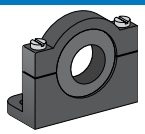
Simple Mounting

Mounting 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

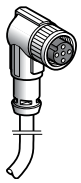
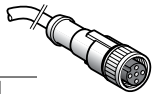
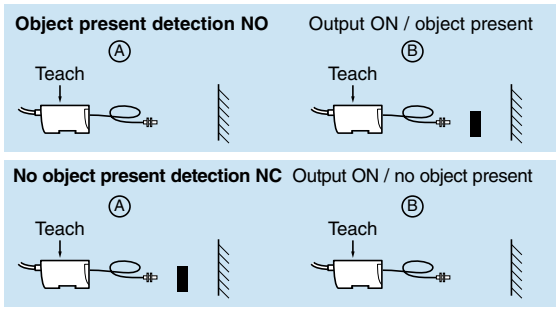
length 2 m without LED	pre-wired, 90°		pre-wired, straight
M8	XSZCS151		XSZCS141 
M12	XSZCD111Y		XSZCD101Y

Photo-electric sensors, fiber optic

Amplifier



	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 (14 to 131° F)	
Degree of protection (conforming to IEC 60529)	IP65 with Ø 1 fiber / IP64 with Ø 0.5 fiber	

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

				Optimum	Universal
Connection				**Pre-cabled, PVC (2 m)**	
References	**3-wire PNP**	programmable	**NO / NC**	XUDA1PSML2	XUDA2PSML2
Amplifier	**3-wire PNP**	programmable	**NO / NC**	XUDA1NSML2	XUDA2NSML2
Connection				**M8 connector**	
References	**3-wire PNP**	programmable	**NO / NC**	XUDA1PSMM8	XUDA2PSMM8
Amplifier	**3-wire PNP**	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

(2) With XUFZ04 fixing clamp with lens

(3) Depending on length and lens fixing clamps

(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

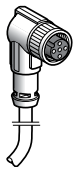


Fig. 1

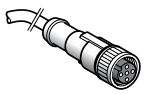
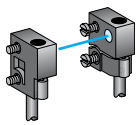


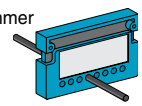
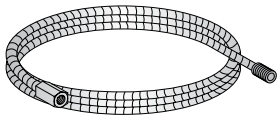
Fig. 2

		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
Mounting bracket with lens (set of 2)		
	Front screw fixing for fiber optics XUFZ920	XUFZ04

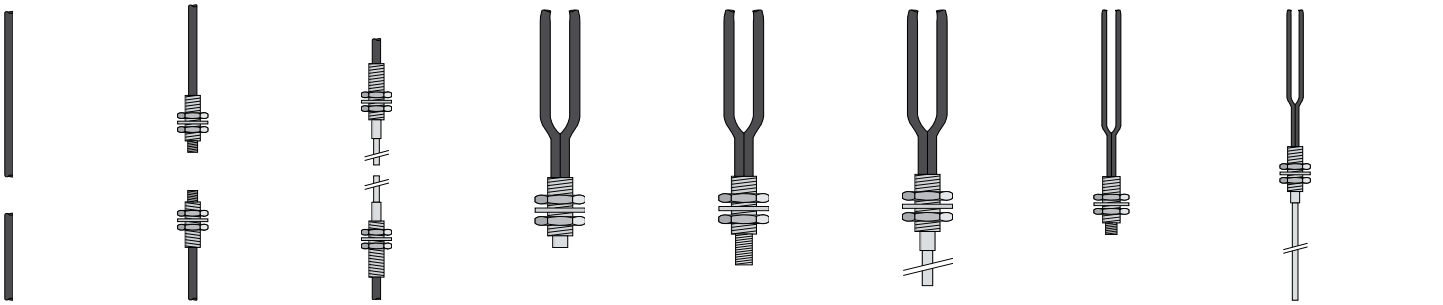
For all system plastic fiber optics

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

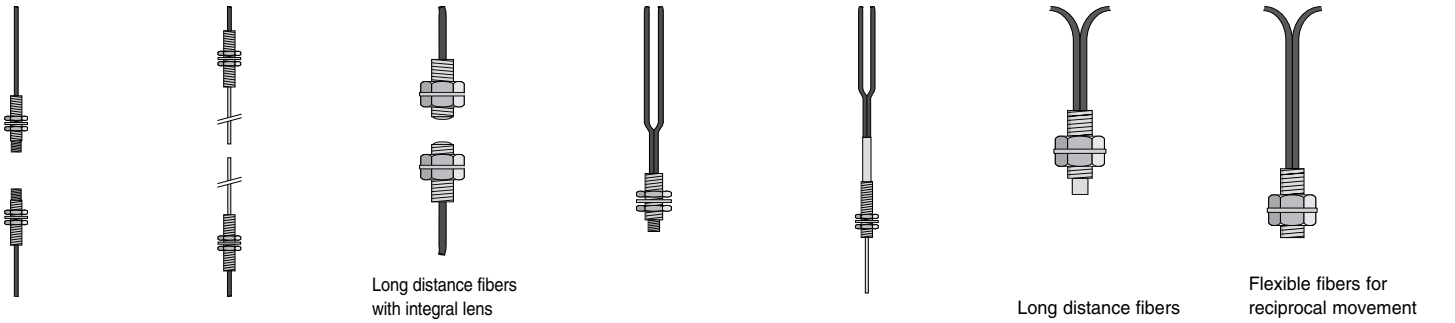
(1) Suitable for use with XUFZ01 and XUFZ02

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

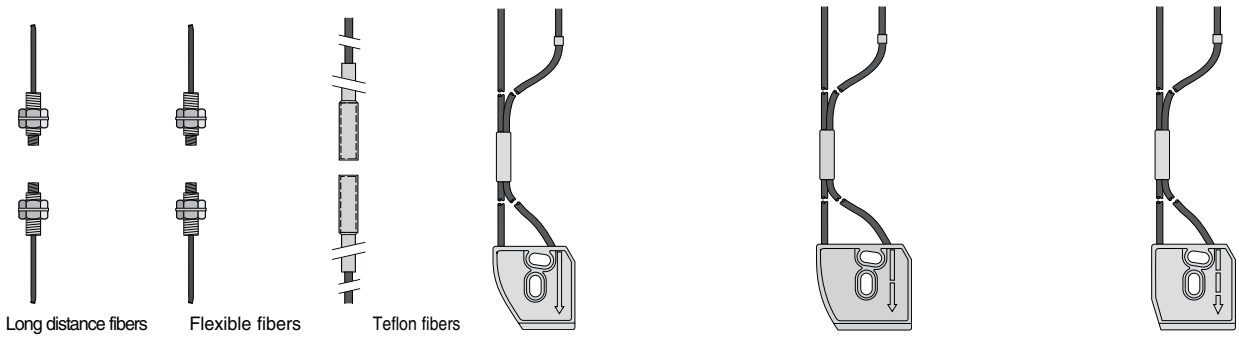
Plastic fiber optic light guides (length 2 m)



L = 20 m (65.16')	M4 / M2.6 (1)	M4 / L = 90 mm (0.29')	M6	M4 / M6	M6 / L = 90 mm (0.29')	M4 / M2.6	M4 / L = 90 mm (0.29')
Thru-beam			**Diffuse**				
250 to 900 (0.82-2.95') (3)	200 or 1500 (0.65-4.92') (1)	180 (0.59')	70 (0.22')	60 (0.19')	60 (0.19')	15 (0.04')	18 (0.05')
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 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)
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



M3 / M2.6 (1)	M3 / L = 90 mm (0.29')	Long distance fibers with integral lens M8 / L = 20 mm (0.06')	M4 / M2.6	M3 / L = 15 mm (0.04')	Long distance fibers M6 / L = 15 mm (0.04')	Flexible fibers for reciprocal movement M6 / L = 17 mm (0.05')
Thru-beam			**Diffuse**			
50 or 1000 (0.16 or 3.28') (1)	30 (0.09')	2500 (8.2')	18 (0.05')	6 (0.01')	95 (0.31')	55 (0.18')
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 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)	- 25 to + 60 (-13 to 140° F)
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



Long distance fibers M4 / M2.6 (1)	Flexible fibers M4 / M2.6 (1)	Teflon fibers Ø 5 / L = 20 mm (0.06')							
Thru-beam			**Diffuse**						
300 or 2000 (0.98 or 6.56') (3)	100 or 750 (0.032 or 2.46') (1)	10000 (32.8')	10 (0.03')		20 (0.06')		30 (0.09')	
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 (with teach mode)	Diffuse (manual)	Diffuse (with teach)
Usable sensing distance	**0.009** m (0.03') (1)	**0.02** m (0.06')	**0.009** m (0.03') (1)
Mounting (mm)	direct: 21 x 28, M5 screws	M18 x 1	direct: ctrs. 28, M5 screws
Sensitivity adjustment potentiometer	with teach mode button		with teach mode button
Case M (metal) P (plastic) / Setting-up assistance LEDs ⊗	M / ⊗	M / ⊗	M / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 10 to + 55 (14 to 131° F) / IP67	- 25 to + 55 (57 to 131° F) / IP67	- 10 to + 55 (14 to 131° F) / IP67
Dimensions (mm) Ø x L or H x W x D	96 x 31 x 64	Ø18 x 95	96 x 31 x 64

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

Connection			M12 connector	M12 connector	M12 connector
Transmitter / Receiver	**3-wire PNP**	**NO** function	–	XU5M18U1D	–
	3-wire NPN	**NO** function	–	–	–
	3-wire PNP / NPN	programmable **NO / NC**	XURK1KSMM12	–	XURU1KSMM12
Supply voltage limits, min/max (V) including ripple			10 - 30	10 - 30	10 - 30
Switching capacity, max (mA) / Switching frequency (Hz)			200 / 10000	100 / 1000	200 / 2000
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 (with teach mode) (50 x 50 reflector included)	Diffuse with adjustable b/ ground suppression	Thru-beam 200 x 120 mm passageway (2)
Usable sensing distance	**1.5** m (4.9')	**1** m (3.28')	**0.12** m (0.39')
Mounting (mm)	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 / ⊗	M / ⊗
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	- 25 to + 55 (-13 to 131° F) / IP65	- 25 to + 55 (-13 to 131° F) / IP65	0 to + 60 (32 to 140° F) / IP65
Dimensions (mm) Ø x L or H x W x L	50 x 18 x 80	50 x 18 x 50	205 x 25 x 230

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

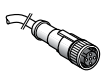
Connection			Pre-cabled, PVC (2 m)	Pre-cabled, PVC (2 m)	–
Transmitter / Receiver	**3-wire PNP**	**NO** function	–	–	XU5M18U1D
	3-wire NPN	**NO** function	–	–	–
	3-wire PNP	programmable **NO / NC**	–	–	–
	3-wire NPN	programmable **NO / NC**	–	–	–
	3-wire PNP / NPN	programmable **NO / NC**	XUKT1KSML2	XUK8AKSNL2	–
Connection			**M12 connector**	**M12 connector**	**M12 connector**
	3-wire PNP	programmable **NO / NC**	–	–	–
	3-wire NPN	programmable **NO / NC**	–	–	–
	3-wire PNP / NPN	programmable **NO / NC**	XUKT1KSMM12	XUKT1KSMM12	XUKT1KSMM12
Supply voltage limits, min/max (V) including ripple			10 - 30	10 - 30	18 - 30
Switching capacity, max (mA) / Switching frequency (Hz)			100 / 1500	100 / 250	400 / 500
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	★ / ⊗	★ / ⊗

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

Accessories

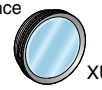
Suitable female plug-in connectors, including pre-wired versions

length 2 m without LED	pre-wired, 90°	pre-wired, straight
M8 (or S)	XSZCS101	XSZCS111
M12 (or D)	XSZD111Y	XSZCD101Y
U20 (or K)	XSZK101Y	XSZCK111Y



Lenses for color mark or luminescence detection

Lens for doubling sensing distance



XURZ01

Ring for fixed focusing

XURZ02

Color sensors

Forked, for detection of opaque labels

Detection of aqueous liquids

Diffuse	Diffuse (with integral amplifier)	Thru-beam Wwor diffuse (3)	Thru-beam infrared	Thru-beam water detector
0.02 m (0.06')	**0.040 - 0.060** m (0.13 - 0.19')	**0.005 - 0.25** m (0.016 - 0.082') (3)	**0.002** m (0.006')	**0.2** m (0.65') (4)
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	↷
P / ⊗	M / ⊗	M / ⊗	M / ⊗	P / ⊗
- 10 to + 55 (14 to 131° F) / IP65	- 10 to + 55 (14 to 131° F) / IP67	- 10 to + 55 (14 to 131° F) / IP65	0 to + 55 (32 to 131° F) / IP65	0 to + 40 (32 to 104° F) / IP65
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	**Pre-cabled (2 m)**	**Pre-cabled (2 m)**	**M8 connector**	**Pre-cabled (2 m)**
XUKC1PSMM12	XURC3PPML2	XURC4PPML2	–	–
XUKC1NSMM12	XURC3NPML2	XURC4NPML2	–	–
–	–	–	XUVK0252S	XUMW1KSNL2
10 - 30	10 - 30	10 - 30	10 - 30	10.8 - 26.4
100 / 1500	100 / 1200	100 / 1200	100 / 10000	100 / 1000
★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

(3) Depending on fibers selected, see table below

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

Packaging series (continued)

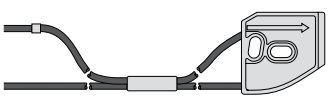
Materials handling series

Forked with integral amplifier for indexing

High excess gain for resistance to accumulated dirt

Line of sight along case axis	Line of sight 90° to case axis	Line of sight along case axis	Line of sight 90° to case axis	Thru-beam	Thru-beam
0 - 1.4 (0 - 4.5')	**0 - 0.8** (0 - 2.62')	**0 - 1.4** (0 - 4.5')	**0 - 0.8** (0 - 2.62')	**0.03** m (0.098')	**50** m (164')
M18 x 1				centers 47	M18 x 1
–	–	–	–	–	↷
P		M		P / –	M / ⊗
-40 to +70 (-40 to 158° F)				- 5 to + 55 (23 to 131° F) / IP54	- 25 to + 55 (-13 to 131° F) / IP67
M18 x 78	M18 x 92	M18 x 78	M18 x 92	–	M18 x 95
Pre-cabled (2 m)				**Pre-cabled, PvR (2 m)**	**–**
–	–	–	–	XUVH0312	–
–	–	–	–	XUVJ0312	–
XUBTAPSNL2	XUBTAPSWL2	XUBTSPSNL2	XUBTSPSWL2	–	–
XUBTANSNL2	XUBTANSWL2	XUBTSNSNL2	XUBTSNSWL2	–	–
–	–	–	–	–	–
M12 connector				**–**	**M12 connector**
XUBTAPSNM12	XUBTAPSWM12	XUBTSPSNM12	XUBTSPSWM12	–	XU2M18AP20D
XUBTANSNM12	XUBTANSWM12	XUBTSNSNM12	XUBTSNSWM12	–	–
–	–	–	–	–	–
10 - 30	10 - 30	10 - 30	10 - 30	19 - 38	10 - 30
100 / 500	100 / 500	100 / 500	100 / 500	150 / 1000	100 / 30
★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗	★ / ⊗

Fiber optic light guides for use with full color sensor XURC4 -



Fiber type	System	Reference	Sensing dist.
Focused	Diffuse	XUFN5L01L2	10 mm (0.03')
		XUFN5L02L2	20 mm (0.06')
		XUFN5L03L2	30 mm (0.09')

Fiber type	System	Reference	Sensing dist.
Standard	Diffuse	XUFN05321	5 mm (0.01')
	Thru-beam (color detection by transparency)	XUFN12301 + XUFZ01	250 m (820.2')

Photo-electric sensors - Application

Food and Beverage Processing series

	Thru-Beam	Diffuse
Usable sensing distance (m)	**2m** (6.56')	**0.05 m** (0.16')
Dimensions (mm) Ø x L	M8 x 48	M8 x 48
Case M (metal) / Setting up assistance LEDs ⊗	M	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	-25 to +55 (-13 to 131° F) / IP67	

Sensors for DC applications

Connection			**Pre-cabled (2 m)**	**Pre-cabled (2 m)**
Transmitter			XUAH0203	-
Connection			**M8 Connector**	
Transmitter			XUAH203S	-
Connection			**Pre-cabled (2 m)**	
	3-wire PNP	**NO** function	XUAH0214	XUAH0515
		NC function	XUAH0224	XUAH0525
Connection			**M8 Connector**	**Pre-cabled (2 m)**
	3-wire PNP	**NO** function	XUAH0214S	XUAH0515S
		NC function	XUAH0224S	XUAH0525S
Supply voltage limits, min/max (V) including ripple			10 - 36	
Switching capacity, max (mA) / Switching frequency (Hz)			100 / 2000	100 / 1000
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	

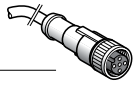
		Line of sight along case axis	Line of sight 90° to case axis
Sensing Distance (m)	Without (diffuse w/background suppression)	**0.12 / 0.12** (0.39' / 0.39')	**0.11 / 0.11** (0.36' / 0.36')
Nominal Sn / maximum	Without (diffuse)	**0.3 / 0.4** (0.09' / 0.12')	**0.2 / 0.3** (0.65' / 0.98')
(excess gain = 2) excess gain = 1)	With reflector (polarized reflex)	**2 / 3** (6.56' / 9.84')	**1.5 / 2** (4.92' / 6.56')
	With thru-beam accessory (thru-beam)	**15 / 20** (49.21' / 65.61')	**10 / 14** (32.8' / 45.93')
Dimensions (mm) Ø x L		M18 x 78	M18 x 92
Sensitivity adjustment potentiometer		-	-
Case M (metal) / Setting up assistance LEDs ⊗		M	
Temperature range (°C) / Degree of protection (conforming to IEC 60529)		-25 to +55 (-13 to 131° F) / IP67	

Sensors for DC applications

Connection			**Pre-cabled (2 m)**	**Pre-cabled (2 m)**
	3-wire PNP	programmable **NO / NC**	XUB0SKNSNL2T	XUB0SKNSWL2T
Connection			**M12 Connector**	**M12 Connector**
	3-wire NPN	programmable **NO / NC**	XUB0SKNSNM12T	XUB0SKNSWM12T
Connection			**Pre-cabled (2 m)**	**Pre-cabled (2 m)**
	3-wire PNP	programmable **NO / NC**	XUB0SPSNL2	XUB0SPSWL2
	3-wire NPN	programmable **NO / NC**	XUB0SNSNL2	XUB0SNSWL2
Connection			**M12 Connector**	**M12 Connector**
	3-wire PNP	programmable **NO / NC**	XUB0SPSNM12	XUB0SPSWM12
	3-wire NPN	programmable **NO / NC**	XUB0SNSNM12	XUB0SNSWM12
Supply voltage limits, min/max (V) including ripple			10 - 36	
Switching capacity, max (mA) / Switching frequency (Hz)			100 / 250	
Overload and short-circuit protection (★) / LED output state indicator (⊗)			★ / ⊗	

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

length 5 m without LED	pre-wired, elbowed	pre-wired, straight	Stainless Sleel Mounting Bracket	Mounting bracket with indexing pin for cylindrical sensors	Reflector 50 x 50 mm
length 5 m without LED	XSZCS111	XSZCS101	M18 XSZA118	M8 XSZB108	50 x 50 mm XUZC50
length 10 m without LED	XSZCS113	XSZCS103		M18 XSZB118	



Laser class I

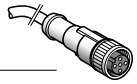
	Transmitter & Receiver	Transmitter	Receiver	Transmitter & Receiver	Transmitter	Receiver
Usable sensing distance (m)	**0 - 100** (0 - 328')					
Mounting (mm)	M18 x 1					
Sensitivity adjustment potentiometer	-	-	-	-	-	
Case M (metal) / Setting up assistance LEDs ⊗	P			M		
Temperature range (°C) / Degree of protection (conforming to IEC 60529)	-40 to +70 (-40 to 158° F)					
Dimensions (mm) H x W x D	M18 x 66		M18 x 76	M18 x 66		M18 x 76

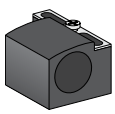
Sensors for DC applications

Connection		**Pre-Cabled, PVC (2 m)**					
	PNP programmable **NO / NC**	XUBLAPCNL2	-	-	XUBLBPCNL2	-	-
	NPN programmable **NO / NC**	XUBLANCNL2	-	-	XUBLBNCNL2	-	-
		-	XUBLAKCNL2T	-	-	XUBLBKCNL2T	-
	PNP	-	-	XUBLAPCNL2R	-	-	XUBLBPCNL2R
	NPN	-	-	XUBLANCNL2R	-	-	XUBLBNCNL2R
Connection		**M12 Connector**					
	PNP programmable **NO / NC**	XUBLAPCNM12	-	-	XUBLBPCNM12	-	-
	NPN programmable **NO / NC**	XUBLANCNM12	-	-	XUBLBNCNM12	-	-
		-	XUBLAKCNLM12	-	-	XUBLBKCNLM12	-
	PNP	-	-	XUBLAPCNM12R	-	-	XUBLBPCNM12R
	NPN	-	-	XUBLANCNM12R	-	-	XUBLBNCNM12R
Supply voltage limits, min/max (V) including ripple	10 - 30					
Switching capacity, max (mA) / Switching frequency (Hz)	100 / 1500					
Overload and short-circuit protection (★) / LED output state indicator (⊗)	★ / ⊗					

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

length 5 m without LED	pre-wired, elbowed	pre-wired, straight	Stainless Sleel Mounting Bracket	Mounting bracket with indexing pin for cylindrical sensors
length 5 m without LED	XSZCS111	XSZCS101	M18 XSZA118	M18 XSZB118
length 10 m without LED	XSZCS113	XSZCS103		

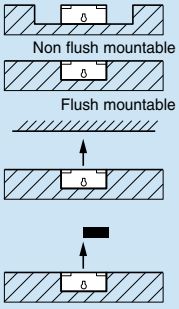




Osiprox®

Inductive proximity sensors

Universal



Osiconcept™
Offering **s**implicity through **i**nnovation

A single product that automatically adapts to all installation environments.

Accurate position detection using teach mode.

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	Form E 26 x 26	Form C 40 x 40	Form D 80 x 80	M12
Nominal sensing distance Sn	**15** mm (0.59")	**25** mm (0.98")	**60** mm (2.36")	**5** mm (0.19")
Usable sensing distance S (mm) flush mountable / non flush mountable	0 - 8 / 0 - 12 (0 - 0.31" / 0 - 0.47")	0 - 12 / 0 - 20 (0 - 0.47" / 0 - 0.78")	0 - 32 / 0 - 48 (0 - 1.25" / 0 - 1.88")	0 - 2.7 / 0 - 4 (0 - 0.10" / 0 - 0.15")
Fine adjustment zone (mm) flush mountable / non flush mountable	5 - 10 / 5 - 15 (0.19" - 0.39")	8 - 15 / 8 - 25 (0.31" - 0.59")	20 - 40 / 20 - 60 (.78 - 1.57" / .78 - 2.36")	1.7 - 3.4 / 1.7 - 5 (.03 - .09" / .06 - .19")
Suitability for flush mounting (metal environment)	flush mountable or non flush mountable via **Osi**concept teach mode			
Case M (metal) P (plastic)	P	P	P	P
Temperature range (°C)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)
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
3-wire	**PNP**	**NO** function	XS8E1A1PAL2	XS8C1A1PAL2	XS8D1A1PAL2	–
		NC function	XS8E1A1PBL2	XS8C1A1PBL2	XS8D1A1PBL2	–
	NPN	**NO** function	XS8E1A1NAL2	XS8C1A1NAL2	XS8D1A1NAL2	–
		NC function	XS8E1A1NBL2	XS8C1A1NBL2	XS8D1A1NBL2	–
Connection			**M8 connector (1)**		**M12 connector**	
3-wire	**PNP**	**NO** function	XS8E1A1PAM8	XS8C1A1PAM8	XS8D1A1PAM12	XS612B2PAL01M12 (2)
		NC function	XS8E1A1PBM8	XS8C1A1PBM8	XS8D1A1PBM12	XS612B2PBL01M12 (2)
	NPN	**NO** function	XS8E1A1NAM8	XS8C1A1NAM8	XS8D1A1NAM12	XS612B2NAL01M12 (2)
		NC 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

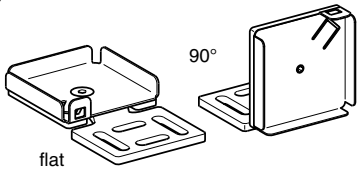
Connection			**Pre-cabled, PvR (2 m)**			
Dimensions (mm) Ø x L or W x H x D			26 x 26 x 13	40 x 40 x 15	80 x 80 x 26	–
2-wire	**AC/DC**	**NO** function	XS8E1A1MAL2	XS8C1A1MAL2	XS8D1A1MAL2	–
not short-circuit protected (3)		**NC** function	XS8E1A1MBL2	XS8C1A1MBL2	XS8D1A1MBL2	–
Connection			**1/2" 20 UNF connector**			
2-wire	**AC/DC**	**NO** function	XS8E1A1MAL01U20	XS8C1A1MAL01U20	XS8D1A1MAU20	–
not short-circuit protected (3)		**NC** 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) (5.9") 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

Mounting Brackets

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

Mounting bracket with indexing pin for cylindrical sensors

M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

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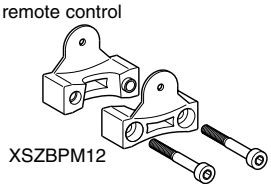
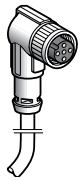
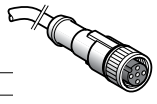
M18	M30	M8	M12	M18	M30
9 mm (0.35")	**18** mm (0.70")	**2.5** mm (0.09")	**4** mm (0.15")	**8** mm (0.31")	**15** mm (0.59")
0 - 4.8 / 0 - 7.2 (0 - 1.88" / 0 - 0.28")	0 - 8.8 / 0 - 14.4 (0 - 0.34" / 0 - 0.56")	0 - 2 (0 - 0.07")	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")
3 - 6 / 3 - 9 (0.11 - 0.23" / 0.11 - 0.35")	6 - 11 / 6 - 18 (0.23 - 0.43" / 0.23- 0.70")	–	–	–	–
flush or non flush mountable via **Osi**concept teach mode		flush mountable	flush mountable	flush mountable	flush mountable
M	M	M	M	M	M
- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)
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

For Osiconcept XS6 remote control

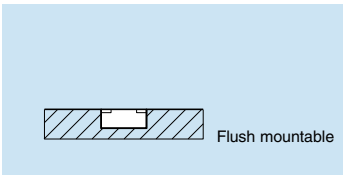


XSZBPM12

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

length 2 m without LED	pre-wired, 90°		pre-wired, straight	
M8	XSZCS151		XSZCS141	
M12	XSZCD111Y		XSZCD101Y	
U20	XSZCK101Y		XSZCK111Y	

Inductive proximity sensors
Optimum



	Form J 8 x 22	Form F 15 x 32	Form E 26 x 26	Form C 40 x 40
Nominal sensing distance Sn	**2.5** mm (0.90")	**5** mm (0.19")	**10** mm (0.39")	**15** mm (0.06")
Operating zone (mm)	0 - 2 (0 - 0.07")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")	0 - 12 (0 - 0.47")
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 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)
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
3-wire	**PNP**	**NO** function	XS7J1A1PAL2	XS7F1A1PAL2	XS7E1A1PAL2	XS7C1A1PAL2
		NC function	XS7J1A1PBL2	XS7F1A1PBL2	XS7E1A1PBL2	XS7C1A1PBL2
	NPN	**NO** function	XS7J1A1NAL2	XS7F1A1NAL2	XS7E1A1NAL2	XS7C1A1NAL2
		NC function	XS7J1A1NBL2	XS7F1A1NBL2	XS7E1A1NBL2	XS7C1A1NBL2
Connection			**M8 connector**			
3-wire	**PNP**	**NO** function	XS7J1A1PAL01M8 (1)	XS7F1A1PAL01M8 (1)	XS7E1A1PAM8	XS7C1A1PAM8
		NC function	XS7J1A1PBL01M8 (1)	XS7F1A1PBL01M8 (1)	XS7E1A1PBM8	XS7C1A1PBM8
	NPN	**NO** function	XS7J1A1NAL01M8 (1)	XS7F1A1NAL01M8 (1)	XS7E1A1NAM8	XS7C1A1NAM8
		NC function	XS7J1A1NBL01M8 (1)	XS7F1A1NBL01M8 (1)	XS7E1A1NBM8	XS7C1A1NBM8
Supply voltage limits, min/max (V) including ripple			10 - 36	10 - 36	10 - 36	10 - 38
Switching capacity, max (mA)			100	100	100	100
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)			2000	2000	1000	1000

Sensors for DC applications

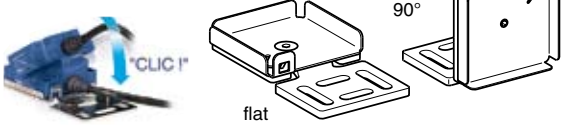
Connection			**Pre-cabled, PvR (2 m)**			
Dimensions (mm) Ø x L or W x H x D			8 x 22 x 8	15 x 32 x 8	26 x 26 x 13	40 x 40 x 15
2-wire	**non polarized**	**NO** function	XS7J1A1DAL2	XS7F1A1DAL2	XS7E1A1DAL2	XS7C1A1DAL2
		NC function	XS7J1A1DBL2	XS7F1A1DBL2	XS7E1A1DBL2	XS7C1A1DBL2
Connection			**M8 connector**			
2-wire	**non polarized**	**NO** function	XS7J1A1DAL01M8 (1)	XS7F1A1DAL01M8 (1)	XS7E1A1DAM8	XS7C1A1DAM8
		NC 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) (5.9") with M8 end connector

Accessories

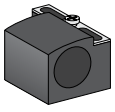
Mounting Brackets

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

Mounting bracket with indexing pin for cylindrical sensors

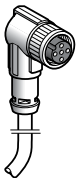
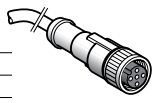


M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

Form D 80 x 80	M8	M12	M18	M30
40 mm (1.57")	1.5 mm (0.05")	2 mm (0.07")	5 mm (0.19")	10 mm (0.39")
0 - 32 (0 - 1.25")	0 - 1.2 0 - 0.04")	0 - 1.6 (0 - 0.06")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")
flush mountable	flush mountable (2)	flush mountable (2)	flush mountable (2)	flush mountable (2)
P	M	M	M	M
- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)
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
M12 connector	**M8 connector**	**M12 connector**		
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
M12 connector				
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

(2) Non-flush mountable available, consult factory

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)	XSZCD111Y		XSZCD101Y	
U20 (or K)	XSZCK101Y		XSZCK111Y	

Inductive proximity sensors - Application

Food and Beverage market, plastic

		Ø M12 threaded	Ø M18 threaded	Ø M30 threaded
Nominal sensing distance Sn	non flush mountable	7 mm (0.25")	12 mm (0.47")	22 mm (0.86")
Operating zone (mm)	non flush mountable	0 - 5.6 (0 - 1.22")	0 - 9.6 (0 - 0.37")	0 - 17.6 (0 - 6.69")
Suitability for flush mounting (metal environment)		non flush mountable		
Case M (metal) P (plastic)		P		
Temperature range (°C)		-25 to +85 (-13 to 185° F)		
Degree of protection (conforming to IEC 60529)		IP67, IP69 K		
Dimensions (mm) Ø x L	non flush mountable	M12 x 61	M18 x 70	M30 x 70

Sensors for DC applications

				Pre-cabled, PUR (2 m)		
3-wire	**PNP**	**NO** function	non flush mountable	XS212AAPAL2	XS218AAPAL2	XS230AAPAL2
		NC function	non flush mountable	XS212AAPBL2	XS218AAPBL2	XS230AAPBL2
	NPN	**NO** function	non flush mountable	XS212AANAL2	XS218AANAL2	XS230AANAL2
		NO function	non flush mountable	XS212AANBL2	XS218AANBL2	XS230AANBL2
Connection				**M12 Connector**		
3-wire	**PNP**	**NO** function	non flush mountable	XS212AAPAM12	XS218AAPAM12	XS230AAPAM12
		NC function	non flush mountable	XS212AAPBM12	XS218AAPBM12	XS230AAPBM12
	NPN	**NO** function	non flush mountable	XS212AANAM12	XS218AANAM12	XS230AANAM12
		NC function	non flush mountable	XS212AANBM12	XS218AANBM12	XS230AANBM12

Sensors for AC and DC applications

				Pre-cabled, PUR (2 m)		
2-wire		**NO** function	non flush mountable	–	XS218AAMAL2	XS230AAMAL2
Connection				**M12 Connector**		
2-wire		**NO** function	non flush mountable	–	XS218AAMAU20	XS230AAMAU20

Accessories

Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors

M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

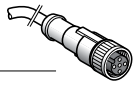
Stainless Sleel Mounting Bracket

M12	9006PA112
M18	XSZA118

Food and Beverage market, metal

Ø M12 threaded	Ø M18 plain	Ø M18 threaded	Ø M30 threaded
7 mm (0.25")	12 mm (0.47")		22 mm (0.86")
0 - 5.6 (0 - 1.22")	0 - 9.6 (0 - 0.37")		0 - 17.6 (0 - 6.69")
M			
-40 to +85 (-40 to 185° F)			
M12 x 61	M18 x 70	M18 x 70	M30 x 70
XS212SAPAL2	XS218SAPAL2	XS2L2SAPAL2	XS230SAPAL2
XS212SAPBL2	XS218SAPBL2	XS2L2SAPBL2	XS230SAPBL2
XS212SANAL2	XS218SANAL2	XS2L2SANAL2	XS230SANAL2
XS212SANBL2	XS218SANBL2	XS2L2SANBL2	XS230SANBL2
M12 connector	**M8 connector**	**M12 connector**	
XS212SAPAM12	XS218SAPAM12	XS2L2SAPAM12	XS230SAPAM12
XS212SAPBM12	XS218SAPBM12	XS2L2SAPBM12	XS230SAPBM12
XS212SANAM12	XS218SANAM12	XS2L2SANAM12	XS230SANAM12
XS212SANBM12	XS218SANBM12	XS2L2SANBM12	XS230SANBM12
–	–	XS218SAMAL2	XS230SAMAL2
M12 connector	**M8 connector**	**M12 connector**	
–	–	XS218SAMAU20	XS230SAMAU20

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

length 5 m without LED	pre-wired, elbowed		pre-wired, straight	
length 5 m without LED	XSZCS111		XSZCS101	
length 10 m without LED	XSZCS113		XSZCS103	

Inductive proximity sensors - Application
Basic, plastic

		M8	M12	M18	M30
Nominal sensing distance Sn	flush mountable	–	–	–	–
	non flush mountable	**2.5** mm (0.09")	**4** mm (0.15")	**8** mm (0.31")	**15** mm (0.59")
Operating zone (mm)	flush mountable	–	–	–	–
	non flush mountable	0 - 2 (0 - 0.07")	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")
Suitability for flush mounting (metal environment)		non flush mountable			
Case M (metal) P (plastic)		P			
Temperature range (°C)		- 20 to + 70 (-4 to + 158° F)			
Degree of protection (conforming to IEC 60529)		IP 67			
Dimensions (mm) Ø x L	flush mountable	–	–	–	–
	non flush mountable	M8 x 42	M12 x 41.3	M18 x 50.6	M30 x 50.6

Sensors for DC applications

Connection				**Pre-cabled, PUR (2 m)**			
3-wire	**PNP**	**NO** function	non flush mountable	**XS208ALPAL2**	**XS212ALPAL2**	**XS218ALPAL2**	**XS230ALPAL2**
		NC function	non flush mountable	XS208ALPBL2	XS212ALPBL2	XS218ALPBL2	XS230ALPBL2
	NPN	**NO** function	non flush mountable	**XS208ALNAL2**	**XS212ALNAL2**	**XS218ALNAL2**	XS230ALNAL2
		NC function	non flush mountable	XS208ALNBL2	XS212ALNBL2	XS218ALNBL2	XS230ALNBL2
3-wire	**PNP**	**NO** function	flush mountable	–	–	–	–
		NC function	flush mountable	–	–	–	–
	NPN	**NO** function	flush mountable	–	–	–	–
		NC function	flush mountable	–	–	–	–
Connection					**M12 Connector**		
3-wire	**PNP**	**NO** function	non flush mountable	–	**XS212ALPAM12**	**XS218ALPAM12**	**XS230ALPAM12**
		NC function	non flush mountable	–	XS212ALPBM12	XS218ALPBM12	XS230ALPBM12
	NPN	**NO** function	non flush mountable	–	**XS212ALNAM12**	**XS218ALNAM12**	XS230ALNAM12
		NC function	non flush mountable	–	XS212ALNBM12	XS218ALNBM12	XS230ALNBM12
3-wire	**PNP**	**NO** function	flush mountable	–	–	–	–
		NC function	flush mountable	–	–	–	–
	NPN	**NO** function	flush mountable	–	–	–	–
		NC function	flush mountable	–	–	–	–

Sensors for AC applications

Connection		**Pre-cabled, PUR (2 m)**			
2-wire, not short-circuit protected (1)	**NO** flush mountable	–	–	–	–
Supply voltage limits, min/max (V) including ripple		10 - 36			
Switching capacity, max (mA)		50	100		
Short-circuit protection (★) / LED output state indicator (⊗)		★ / ⊗			
Voltage drop, closed state (V) at I nominal		< 2			
Switching frequency (Hz)	DC version	3000	1000	250	60
	AC version	–	–	–	–

(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

Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors

M6.5	XSZB165
M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

Basic, metal

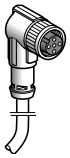
Ø 6.5	M8	M12	M18	M30
1.5 (0.05")	1.5 (0.05")	2 (0.07")	5 (0.19")	10 (0.39")
–	2.5 mm (0.09")	4 mm (0.15")	8 mm (0.31")	15 mm (0.59")
0 - 1.2 (0 - 0.04")	0 - 1.2 (0 - 0.04")	0 - 1.6 (0 - 0.15")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")
–	0 - 2 (0 - 0.07")	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")
flush mountable or non flush mountable depending on model				
M				
- 25 to + 70 (-13 to + 158° F)				
IP 67				
Ø 6.5 x 42	M8 x 42	M12 x 41.3	M18 x 51.3	M18 x 51.3
–	M8 x 42	M12 x 41.3	M18 x 50.6	M30 x 50.6
–	**XS208BLPAL2**	**XS212BLPAL2**	**XS218BLPAL2**	**XS230BLPAL2**
–	XS208BLPBL2	XS212BLPBL2	XS218BLPBL2	XS230BLPBL2
–	XS208BLNAL2	**XS212BLNAL2**	**XS218BLNAL2**	**XS230BLNAL2**
–	XS208BLNBL2	XS212BLNBL2	XS218BLNBL2	XS230BLNBL2
XS106BLPAL2	**XS108BLPAL2**	**XS112BLPAL2**	**XS118BLPAL2**	**XS130BLPAL2**
XS106BLPBL2	XS108BLPBL2	**XS112BLPBL2**	**XS118BLPBL2**	XS130BLPBL2
XS106BLNAL2	**XS108BLNAL2**	**XS112BLNAL2**	**XS118BLNAL2**	**XS130BLNAL2**
XS106BLNBL2	XS108BLNBL2	XS112BLNBL2	XS118BLNBL2	XS130BLNBL2
	M12 (1)		**M12**	
–	XS208BLPAM12	**XS212BLPAM12**	**XS218BLPAM12**	**XS230BLPAM12**
–	XS208BLPBM12	XS212BLPBM12	XS218BLPBM12	XS230BLPBM12
–	**XS208BLNAM12**	**XS212BLNAM12**	**XS218BLNAM12**	**XS230BLNAM12**
–	XS208BLNBM12	XS212BLNBM12	XS218BLNBM12	XS230BLNBM12
–	**XS108BLPAM12**	**XS112BLPAM12**	**XS118BLPAM12**	**XS130BLPAM12**
–	XS108BLPBM12	XS112BLPBM12	XS118BLPBM12	XS130BLPBM12
–	**XS108BLNAM12**	**XS112BLNAM12**	**XS118BLNAM12**	**XS130BLNAM12**
–	XS108BLNBM12	XS112BLNBM12	XS118BLNBM12	XS130BLNBM12

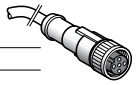
(1) M8 version available. To order, replace the reference suffix M12 by **M8**. Example XS108BLPA**M12** becomes XS108BLPA**M8**.

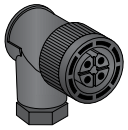
–	–	XS112BLFAL2	XS118BLFAL2	XS130BLFAL2
10 - 36				10 - 58
50		100		
★ / ⊗				
< 2 (XS112BLFAL2 = < 7, XS118 and XS130 BLFAL2 = 4.5)				
3000	3000	XS1 = 2000, XS2 = 1000	XS1 = 2000, XS2 = 250	XS1 = 200, XS2 = 60
–	–	25	25	25

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

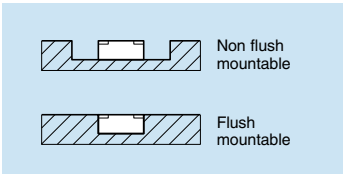
length 5 m without LED	pre-wired, elbowed	pre-wired, straight	screw terminal
M8 (or S)	XZCP0666L5	**XZCP0566L5**	**XZCP0566L5**
M12 (or D)	XZCP1241L5	**XZCP1141L5**	**XZCP1141L5**







Inductive proximity sensors - Application
Plastic cylindrical



	M8	M12	M18	M30
Nominal sensing distance Sn	2.5 mm (0.09")	4 mm (0.15")	8 mm (0.31")	15 mm (0.59")
Operating zone (mm)	0 - 2 (0 - 0.07")	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")
Suitability for flush mounting (metal environment)	non flush mountable			
Case M (metal) P (plastic)	P			
Temperature range (°C)	- 25 to + 70 (-13 to 158° F)			
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
2-wire (non polarized)		**NO or NC**	programmable	–	–	–	–
4-wire	**PNP**	**NO + NC**	complementary outputs	–	–	–	–
	NPN	**NO + NC**	complementary outputs	–	–	–	–
3-wire	**PNP**	**NO** function		XS4P08PA340	XS4P12PA340	XS4P18PA340	XS4P30PA340
		NO function		XS4P08PB340	XS4P12PB340	XS4P18PB340	XS4P30PB340
	NPN	**NO** function		XS4P08NA340	XS4P12NA340	XS4P18NA340	XS4P30NA340
		NO function		XS4P08NB340	XS4P12NB340	XS4P18NB340	XS4P30NB340
Connection				**M8 connector**	**M12 connector**		
3-wire	**PNP**	**NO** function		XS4P08PA340S	XS4P12PA340D	XS4P18PA340D	XS4P30PA340D
		NO function		XS4P08PB340S	XS4P12PB340D	XS4P18PB340D	XS4P30PB340D
	NPN	**NO** function		XS4P08NA340S	XS4P12NA340D	XS4P18NA340D	XS4P30NA340D
		NO 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
2-wire	**AC/DC**	**NO** function		XS4P08MA230	XS4P12MA230	XS4P18MA230	XS4P30MA230
not short-circuit protected (1)		**NC** function		XS4P08MB230	XS4P12MB230	XS4P18MB230	XS4P30MB230
AC	**AC**	**NO** or **NC** programmable		–	–	–	–
AC/DC	**AC/DC**	**NO** or **NC** programmable		–	–	–	–
Connection				**U20 connector**			
2-wire	**AC/DC**	**NO** function		XS4P08MA230K	XS4P12MA230K	XS4P18MA230K	XS4P30MA230K
not short-circuit protected (1)		**NC** 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

Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors

M4	XSZB104
M5	XSZB105
M6.5	XSZB165
M8	XSZB108

M12	XSZB112
M18	XSZB118
M30	XSZB130

Miniature cylindrical (assembly)

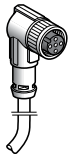
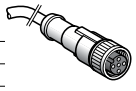
Rectangular Form C

	Ø 4	M5	Ø 6.5	Form C			
	1 mm (0.03")	1 mm (0.03")	1.5 mm (0.05")	15 mm (0.59")	20 mm (0.78") increased sensing dist.	20 mm (0.78")	40 mm (1.56") increased sensing dist.
	0 - 0.8 (0 - 0.03")	0 - 0.8 (0 - 0.03")	0 - 1.2 (0 - 0.04")	0 - 12 (0 - 0.47")	0 - 16 (0 - 0.62")	0 - 16 (0 - 0.62")	0 - 32 (0 - 1.25")
	flush mountable			flush mountable		non flush mountable	
	M			P			
	- 25 to + 70 (-13 to 158° F)			- 25 to + 70 (-13 to 158° F)			
	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	–	–	–	–
	–	–	–	–	–	–	–
	M8 connector						
	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)	
	Pre-cabled, PvR (2 m)			**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

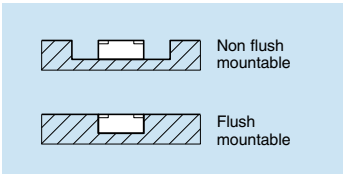
Suitable female plug-in connectors, including pre-wired versions

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	

Osiprox — 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 Sn	10 mm (0.09")	15 mm (0.09")	10 mm (0.09")	5 mm (0.09")	10 mm (0.09")
Operating zone (mm)	0 - 8 (0 - 0.31")	0 - 12 (0 - 0.472")	0 - 8 (0 - 0.31")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")
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 (-13 to 158° F)			0 to + 50 (32 to 122° F)	
Degree of protection (conforming to IEC 60529)	IP67			pre-cabled: IP68 (with connector: IP67)	
Dimensions (mm) Ø 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**				Flying lead (L = 0.8 m) with 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)			–	–	–	–	

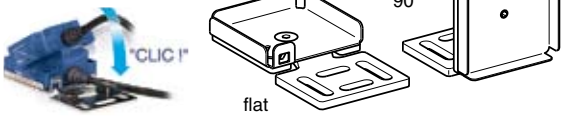
Multi-current/multi-voltage sensors for AC/DC applications

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

Mounting Brackets

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

Mounting bracket 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 (0.09")	10 mm (0.09")	15 mm (0.09")	40 mm (0.09")	M: 2 mm (0.09") / P: 4 mm (0.09")	M: 5 mm (0.09") / P: 8 mm (0.09")	M: 10 mm (0.09") / P: 15 mm (0.09")
1 - 4 (0.03 - 0.15")	1 - 10 (0.03 - 0.39")	2 - 15 (0.07 - 0.59")	5 - 40 (0.19 - 1.57")	M: 0.2 - 2 / P: 0.4 - 4 (0.007 - 0.07" / 0.01 - 0.15")	M: 0.5 - 5 / P: 0.8 - 8 (0.02 - 0.20" / 0.03 - 0.31")	M: 1 - 10 / P: 1.5 - 15 (0.03 - 0.39" / 0.05 - 0.59")
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 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)	- 25 to + 70 (-13 to 158° F)
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
M8 or M12 connector						
–	–	–	–	–	–	–
–	–	–	–	–	–	–
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)

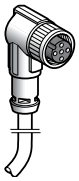
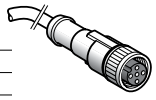
(2) For these sensors without short-circuit protection, it is essential to connect a 0.4 A quick-blow fuse in series with the load

(3) Flying lead (L = 0.15 m) (5.90") with end mounted remote control incorporating M12 connector

(4) Flying lead (L = 0.15 m) (5.90") with end connector

(5) Flying lead (L = 0.15 m) (5.90") 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	

Inductive proximity sensors - Technology

Extended range - Short case

				M8	M12	M18	M30
Nominal sensing distance Sn			flush mountable	2.5 mm (0.98")	4 mm (1.57")	10 mm (3.94")	20 mm (7.87")
			non flush mountable	–	–	–	–
Operating zone (mm)			flush mountable	0 - 2 (0 - 0.07")	0 - 3.2 (0 - 0.12")	0 - 8 (0 - 0.31")	0 - 16 (0 - 0.62")
			non flush mountable	–	–	–	–
Suitability for flush mounting (metal environment)				Flush mountable			
Case M (metal) P (plastic)				M			
Temperature range (°C)				- 25 to + 50 (-13 to 122° F)			
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+NPN**	**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 programmable	**NO/NC**	flush mountable (metal)	–	–	–	–
			non flush mountable (metal)	–	–	–	–
			non flush mountable (plastic)	–	–	–	–
Connection				**Pre-cabled, PvR (2 m)**			
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 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: XS1N08PA349**S** becomes XS1N08PA349**D**

Accessories

Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors

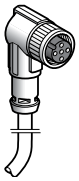
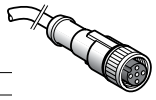
M8	XSZB108
M12	XSZB112
M18	XSZB118
M30	XSZB130

Complementary outputs - Short case NO + NC

PNP + NPN outputs, NO/NC programmable

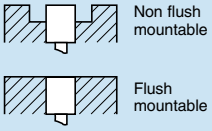
	M8	M12	M18	M30	M12	M18	M30
	1.5 mm (0.05")	2 mm (0.07")	5 mm (0.19")	10 mm (0.39")	2 mm (0.07")	5 mm (0.19")	10 mm (0.39")
	2.5 mm (0.10")	4 mm (0.16")	8 mm (0.31")	15 mm (0.59")	4 mm (0.16")	8 mm (0.31")	15 mm (0.59")
	0 - 1.2 (0 - 0.04")	0 - 1.6 (0 - 0.06")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")	0 - 1.6 (0 - 0.06")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")
	0 - 2 (0 - 0.07")	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")
	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 (-13 to 176° F)	- 25 to + 70 (-13 to 158° F)			- 25 to + 70 (-13 to 158° F)		
	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
	Pre-cabled, PvR (2 m)				**Pre-cabled, PvR (2 m)**		
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	XS1M08PC410	XS1N12PC410	XS1N18PC410	XS1N30PC410	–	–	–
	XS2M08PC410	XS2N12PC410	XS2N18PC410	XS2N30PC410	–	–	–
	XS1NM08NC410	XS1N12NC410	XS1N18NC410	XS1N30NC410	–	–	–
	XS2M08NC410	XS2N12NC410	XS2N18NC410	XS2N30NC410	–		
	–	–	–	–	XS1M12KP340	XS1M18KP340	XS1M30KP340
	–	–	–	–	XS2M12KP340	XS2M18KP340	XS2M30KP340
	–	–	–	–	XS4P12KP340	XS4P18KP340	XS4P30KP340
	M12 Connector				**M12 Connector**		
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	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	

Inductive proximity sensors - Technology

Multi-voltage with short-circuit protection



		M12	M18	M30
Nominal sensing distance Sn	flush mountable	2 mm (0.07")	5 mm (0.19")	10 mm (0.39")
	non flush mountable	4 mm (0.15")	8 mm (0.31")	15 mm (0.59")
Operating zone (mm)	flush mountable	0 - 1.6 (0 - 0.06")	0 - 4 (0 - 0.15")	0 - 8 (0 - 0.31")
	non flush mountable	0 - 3.2 (0 - 0.12")	0 - 6.4 (0 - 0.25")	0 - 12 (0 - 0.47")
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 (-13 to 158° F)		
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

Sensors for DC applications

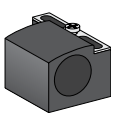
Connection			**Pre-cabled, PvR (2 m)**		
2-wire AC/DC	**NO** function	flush mountable	XS1M12MA250	XS1M18MA250	–
		non flush mountable	XS2M12MA250	XS2M18MA250	XS2M30MA250
	NC function	flush mountable	XS1M12MB250	XS1M18MB250	–
		non flush mountable	XS2M12MB250	XS2M18MB250	–
Connection			**1/2" 20 Micro style AC**		
2-wire AC/DC	**NO** function	flush mountable	XS1M12MA250K	XS1M18MA250K	–
		non flush mountable	XS2M12MA250K	XS2M18MA250K	–
	NC 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

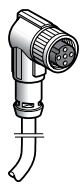
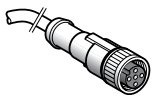
Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors



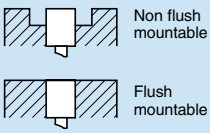
M12	XSZB112
M18	XSZB118
M30	XSZB130

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	

Capacitive Sensors-Osicap

Detection of insulating materials (flush mountable)



	Suitability for flush mtg. (metal environment)	M12	M18	M30	40 x 40
Nominal sensing distance Sn	flush mountable	2 mm (0.078")	5 mm (0.196")	10 mm (0.393")	15 mm (0.591")
	non flush mountable	2 mm (0.078")	5 mm (0.196")	10 mm (0.393")	–
Operating zone (mm)	flush mountable	0 - 1.44 (0 - 0.56")	0 - 3.60 (0 - 0.141")	0 - 7.2 (0 - 0.28")	0 - 10.8 (0 - 0.43")
	non flush mountable	0 - 1.44 (0 - 0.56")	0 - 3.60 (0 - 0.141")	0 - 7.2 (0 - 0.28")	–
Case M (metal) P (plastic)	flush mountable	M, P	M, P	M, P	P
	non flush mountable	M, P	M, P	M, P	–
Temperature range (°C)		-25 - +70 (-13 - 158° F)			
Degree of protection (conforming to IEC 60529)		IP67			IP67
Dimensions (mm) Ø x L		M12 x 50	M18 x 70	M30 x 70	40 x 40 x 117

Sensors for DC applications

Connection				**Pre-cabled, PvC (2 m)**			
3-wire	**PNP**	**NO** function	flush mountable	XT112S1PAL2	XT118B1PAL2	XT130B1PAL2	–
	NPN		flush mountable	XT112S1NAL2	XT118B1NAL2	XT130B1NAL2	–
Connection				**Pre-cabled, PvC (2 m)**			
3-wire	**PNP**	**NO/NC** function	flush mountable	–	–	–	–
	NPN	**NO/NC** function	flush mountable	–	–	–	–
Connection				**Pre-cabled, PvR (2 m)**			**Screw terminals**
4-wire	**PNP**	**NO/NC** function	flush mountable	XT112S1PCL2	XT118B1PCL2	XT130B1PCL2	XT7C40PC440
Connection				**M12**			**Screw terminals**
4-wire	**PNP**	**NO/NC** function	flush mountable	XT112S1PCM12	XT118B1PCM12	XT1308B1PCM12	XT7C40PC440
Supply voltage limits, min/max (V) including ripple				12 - 30	12 - 31	12 - 32	10 - 38
Switching capacity, max (mA)				200	3-wire 200, 2-wire 330	3-wire 200, 2-wire 330	300
Short circuit-protection (★) / LED output state indicator (⊗)				★ / ⊗			★ / ⊗
Voltage drop, closed state (V) at I nominal				> or = 2	> or = 2	> or = 2	> or = 2
Switching frequency (Hz)				300	200	150	100

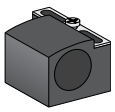
Multi-current / multi-voltage for AC applications

Connection				**Pre-cabled, PvR (2 m)**			
2-wire AC		**NO** function	flush mountable	–	XT118B1FAL2	XT130B1FAL2	–
		NC function	flush mountable	–	XT118B1FBL2	XT130B1FBL2	–
		NO / NC function	flush mountable	–	–	–	XT7C40FP262
Connection							**Screw terminals**
2-wire AC		**NO or NC** programmable	flush mountable	–	–	–	XT7C40FP262
Supply voltage limits, min/max (V) 50-60 Hz				–	24 - 240	24 - 240	20 - 264
Switching capacity, max (mA)				–	330	330	350
LED output state indicator (⊗) / Power on LED (⊗)				–	★ / ⊗	–	★ / ⊗
Residual current, open state (mA)				–	<5	<5	1.5 @ 120 V
Voltage drop, closed state (V) at I nominal				–	> or = 6	> or = 6	> or = 5.5
Switching frequency (Hz)				–	25	25	25

Accessories

Mounting Brackets

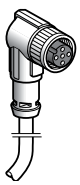
Mounting bracket with indexing pin for cylindrical sensors

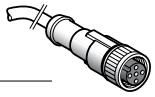


M8	XSZB108
M12	XSZB112
M18	XSZB118
Ø 32	XSZB32

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

	length 2 m without LED	pre-wired, 90°	pre-wired, straight
M8		XSZCS151	XSZCS141
M12		XSZCD114Y	XSZCD104Y





Electronic Tags	C format		ISO Badge	Disc
Nominal sensing distance (mm)				
with station XGC S49	48 (1.88")	40 (1.57")	100 (3.93")	65 (2.55")
with station XGC S89	48 (1.88")	40 (1.57")	100 (3.93")	65 (2.55")
Dimensions (W x H x D)	40 mm x 40 mm x 15 mm		54 mm x 85.5 mm x .8 mm	Ø x 30 mm x 3 mm
Memory Capacity	3 405		13 632	112
Type of Memory	EEPROM			
Time (ms)				
read	9.25 + 375 x n	16.25+ 375 x n	12 + 0.825 x n	12 + 0.825 x n
write	13 + 0.8 x n	20 + 0.8 x n	20 + 11.8 x n	12 + 5.6 x n
Part Number	XGH B 444345	XGH B445345	XGH B90E340	XGH B320345

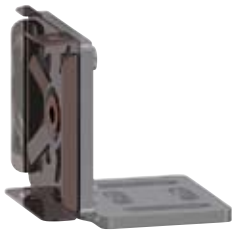
Electronic Tags	E format	Cylindrical
Nominal sensing distance (mm)		
with station XGC S49	40 (1.57")	18 (0.70")
with station XGC S89	55 (2.16")	20 (0.75")
Dimensions (W x H x D)	26 mm x 26 mm x 13 mm	M18 x 1 mm x 12 mm
Memory Capacity	256	256
Type of Memory	EEPROM	
Time (ms)		
read	12 + 0.825 x n	12 + 0.825 x n
write	20 + 11.8 x n	19 + 4.1 x n
Part Number	XGH B221346	XGH B211345

Accessories					
Part number	**Length (m)**	**Part number**	**Length (m)**	**Part number**	**Length (m)**
TCS MCN1FQM2	2 (6.6')	TCS MCN1F9M2P	2 (6.6')	XGS Z08L2	2 (6.6')
–	–	–	–	XGS Z08L5	5 (16.4')
–	–	–	–	XGS Z08L10	10 (32.8')
Description					
Modus® shielded connection cable, M12/SUB-D15, A Coding		Modbus® shielded conection cable, M12/Mini-DIN 8-way, A Coding		Pre-wired M12, 4-pin female connector, A Coding	

Compact Stations, 13.56 MHz	E format	Cylindrical
Dimensions (W x H x D)	40 x 40 x 15	80 x 80 x 26
Protocols	Modbus TRU, Uni-Telway and CANopen	
Norminal Sensing Distance depending on associated tag (mm)	18 - 70 (0.70 - 2.75")	20 - 100 (0.75 - 3.93")
Part Number	XGC S4901201	XGC S8901201

Connection boxes	Ethernet box	Tap-off box
Protocols	Modbus TCP/IP	Modbus, Uni-Telway and CANopen
Associated compact stations	XGC S49 and XGC S89	
Supply Voltage	24 VDC	
Part number	XGS Z33ETH	TGS AMT31FP

Portable Terminal	For 13.56 MHz RFID diagnostics
Description	Read/Write operations on electronic tags and diagnostics on compact stations
Protocols	Microsoft Windows® CE.NET Professional version 4.2
Part Number	XGS TP401



	Part number	Part number	Use with	Part number	Use with	Part number	Use with
	TCS CTN011M11F	XGSZ3P	TCSAMT31FP	XSZBC00	XGCS4901201	XSZBC90	XGCS4901201
	–	–	XGSZ33ETH	XSZBE00	XGHB445345	XSZBE90	XGHB445345
	–	–	–	–	XGHB221346	–	XGHB221346
	Network"T" connector, M12, 1 male/2 female 5-pin, A coding	Mounting plate for connection boxes		Flat mounting plate		90° angle flat mounting plate	

Model Number							
Characteristic							
Housing Style				**18 mm Barrel Style**		**Dual Mount Style**	
Housing Material				**PBT**		**VALOX®**	
Temperature Range C°				**-30 to 70** (-22 to 158° F)		**-30 to 70** (-22 to 158° F)	
Supply Voltage				12-24 VDC		12-24 VDC	
Range	**Window**						
508 mm (20")	Teachable			**Cable**	**Quick Disconnect**	**Cable**	**Quick Disconnect**
		NPN Sinking	**NO**	VM18-NNO	VM18-NNO-Q	VM1-NNO	VM1-NNO-Q
			NC	VM18-NNC	VM18-NNC-Q	VM1-NNC	VM1-NNC-Q
		PNP Sourcing	**NO**	VM18-PNO	VM18-PNO-Q	VM1-PNO	VM1-PNO-Q
			NC	VM18-PNC	VM18-PNC-Q	VM1-PNC	VM1-PNC-Q

Dual Mount & 18 mm Dual-Level Sensing

Model Number							
Characteristic							
Housing Style				**18 mm Barrel Style**		**Dual Mount Style**	
Housing Material				**PBT**		**VALOX®**	
Temperature Range C°				**-30 to 70** (-22 to 158° F)		**-30 to 70** (-22 to 158° F)	
Supply Voltage				12-24 VDC		12-24 VDC	
Range	**Window**						
508 mm (20")	**Teachable**			**Cable**	**Quick Disconnect**	**Cable**	**Quick Disconnect**
			NPN				
			Pump-in	VM18-NPI0000	VM18-NPI0000-Q	VM1-NPI0000	VM1-NPI0000-Q
			Pump-out	VM18-NP00000	VM18-NP00000-Q	VM1-NP00000	VM1-NP00000-Q
			PNP				
			Pump-in	VM18-PPI0000	VM18-PPI0000-Q	VM1-PPI0000	VM1-PPI0000-Q
			Pump-out	VM18-PPO0000	VM18-PPO0000-Q	VM1-PPO0000	VM1-PPO0000-Q

ALL Virtu series sensors use the same cables

Accessories

Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors

M18	XSZA118

Stainless Sleel Mounting Bracket

M18	XSZB118

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

Virtu Analog

Model Number						
Characteristic						
Housing Style			18 mm Barrel Style		Dual Mount Style	
Housing Material			PBT		VALOX®	
Temperature Range C°			-30 to 70 (-22 to 158° F)		-30 to 70 (-22 to 158° F)	
Supply Voltage			15-24 VDC		15-24 VDC	
Range	**Window**		**Cable**	**Quick Disconnect**	**Cable**	**Quick Disconnect**
508 mm (20")	Teachable					
		Voltage				
		Auto Slope	VM18-VA	VM18-VA-Q	VM1-VA	VM1-VA-Q
		Inverse Slope	VM18-VI	VM18-VI-Q	VM1-VI	VM1-VI-Q
		Direct Slope	VM18-VD	VM18-VD-Q	VM1-VD	VM1-VD-Q
		Current				
		Auto Slope	VM18-CA	VM18-CA-Q	VM1-CA	VM1-CA-Q
		Inverse Slope	VM18-CI	VM18-CI-Q	VM1-CI	VM1-CI-Q
		Direct Slope	VM18-CD	VM18-CD-Q	VM1-CD	VM1-CD-Q

Virtu 30 and Virtu 80

Model Number					
Characteristic					
Housing Style			18 mm Barrel Style	Dual Mount Style	
Housing Material			PBT Valox 553		
Temperature Range C°			-30 to 70 (-22 to 158° F)		
Supply Voltage			12-24 VDC		
Range	**Window**		Quick Disconnect		
1000 mm (39.4")	Teachable				
		PNP Sinking **NO**	XX6V3A1PAM12	XX8D1A1PAM12	
		NC	XX6V3A1PBM12	XX8D1A1PBM12	
		NPN Sourcing **NO**	XX6V3A1NAM12	XX8D1A1NAM12	
		NC	XX6V3A1NBM12	XX8D1A1NBM12	

ALL Virtu series sensors use the same cables

Accessories					
Straight	**Connection type**	**Length**	**90°**	**Connection type**	**Length**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
PB100 In-line accessory push-button for teaching window limits (for Virtu series sensors)					

Virtu 30 and Virtu 80 Analog

Model Number				
Characteristic				
Housing Style			**30mm Barrel Style**	**80 x 80**
Housing Material			**PBT Valox 553**	
Temperature Range C°			**-30 to 70** (-22 to 158° F)	
Supply Voltage			15-24 VDC	
Range	**Window**		**Quick Disconnect**	
1000 mm (39.4")	Teachable			
		0-10 VDC	XX9V3A1F1M12	XX9D1A1F1M12
		4-20 mA	XX9V3A1C2M12	XX9D1A1C2M12

ALL Virtu series sensors use the same cables

Accessories

Mounting Brackets

Mounting bracket with indexing pin for cylindrical sensors

M18	XSZA118

Stainless Sleel Mounting Bracket

M18	XSZB118

SM300 Series — Ultrasonic Sensors

12 mm & Flat-profile Proximity

12 mm ULTEM

Flat-profile ULTEM

Model Number*					
Characteristics					
Housing Style/Material		**12 mm ULTEM®**	**Flat-profile ULTEM®**	**12 mm ULTEM®**	**Flat-profile ULTEM®**
Temperature Range C°		**-30 to 70 (-22° to 158° F)**	**-30 to 70 (-22° to 158° F)**	**-30 to 70 (-22° to 158° F)**	**-30 to 70 (-22° to 158° F)**
Supply Voltage		12-24 VDC	12-24 VDC	12-24 VDC	12-24 VDC
Connection Type		**3 m (10') Cable**		**M12 Connector**	
Range	**Window**				
50.8 mm (2.0")	**44.5 (1.75")**				
	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 (4.0")	**25.4 mm (1.0")**				
	NO	SM300A-416-00			SM350A-416-00FP M8
101.6 mm (4.0")	**95.3 mm (3.75")**				
	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®**
Temperature Range C°		**-30 to 70 (-22° to 158° F)**	**-30 to 70 (-22° to 158° F)**	**-30 to 70 (-22° to 158° F)**	**-30 to 70 (-22° to 158° F)**
Supply Voltage		12-24 VDC	12-24 VDC	12-24 VDC	12-24 VDC
Connection Type		**3 m (10') Cable**		**M12 Connector**	
Range	**Window**				
50.8 mm (2.0")	**19.05 mm (0.75")**				
	Pump-in	SM302A-212-10		SM382A-212-10	M12
	Pump-out	SM302A-212-00	SM302A-212-00FP	SM382A-212-00	SM382A-212-00FP M12
72.6 mm (3.0")	**25.4 mm (1.0")**				
	Pump-in	SM302A-316-10		SM352A-316-10	Ma
	Pump-out	SM302A-316-00	SM302A-316-00FP	SM352A-316-00	SM352A-316-00FP M8
101.6 mm (4.0")	**25.4 mm (1.0")**				
	Pump-in	SM302A-416-10		SM382A-416-10	M12
	Pump-out	SM302A-416-00	SM302A-416-00FP	SM382A-416-00	SM382A-416-00FP M12
101.6 mm (4.0")	**50.8 mm (2.0")**				
	Pump-in	SM302A-432-10		SM352A-432-10	Ma
	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**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
XSZCS101	M8 connector	2 m (6.6')	XSZCS111	M8 connector	2 m (6.6')
Additional cable lengths are available					

SM600 Series

Ultrasonic Sensors
18 mm & Flat-profile Proximity

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®**
Temperature Range C°		**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)
Connection Type		**3 m (10') Cable**			**M12 Connector**		
Supply Voltage		12-24 VDC			12-24 VDC		
Range	**Window**						
51 mm (2")	1.6 mm (1/16")						
	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 (1/2")						
	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 (3/4")						
	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 (1")						
	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 (3")	1.6 mm (1/16")						
	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 (1/2")						
	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 (3/4")						
	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 (1")						
	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 (2")						
	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 (4")	1.6 mm (1/16")						
	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 (1/2")						
	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 (3/4")						
	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 (1")						
	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 (2")						
	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 (3")						
	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
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')

Additional cable lengths are available

SM600 Series — Ultrasonic Sensors

18 mm & Flat-profile Proximity (continued)

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®**
Temperature Range C°		**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)
Connection Type		**3 m (10') Cable**			**M12 Connector**		
Supply Voltage		12-24 VDC			12-24 VDC		
Range	**Window**						
127 mm (5")	1.6 mm (1/16")						
	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
	13 mm (1/2")						
	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
	19 mm (3/4")						
	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
	25 mm (1")						
	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
	51 mm (2")						
	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
	77 mm (3")						
	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
152 mm (6")	1.6 mm (1/16")						
	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
	13 mm (1/2")						
	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
	19 mm (3/4")						
	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
	25 mm (1")						
	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
	51 mm (2")						
	NO	SM600A-632-00	SM600A-632-00S	SM650A-632-00	SM650A-632-00S	SM650A-632-00FP	SM650A-732-00FP
	NC	SM600A-632-10	SM600A-632-10S	SM650A-632-10	SM650A-632-10S	SM650A-632-10FP	SM650A-732-10FP
	77 mm (3")						
	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-648-00FP
	127 mm (5")						
	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**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
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®**
Temperature Range C°		**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)
Connection Type		**3 m (10') Cable**			**M12 Connector**		
Supply Voltage		12-24 VDC			12-24 VDC		
Range	**Window**						
178 mm (7")	**1.6 mm (1/16")**						
	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 (1/2")						
	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 (3/4")						
	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 (1")						
	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 (2")						
	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 (3")						
	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 (5")						
	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

SM602 Dual-level

Model Number*							
Characteristics							
Housing Style/Material		**18 mm ULTEM®**	**Stainless Steel**	**Flat-profile ULTEM®**	**18 mm ULTEM®**	**Stainless Steel**	**Flat-profile ULTEM®**
Temperature Range C°		**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)
Connection Type		**3 m (10') Cable**			**M12 Connector**		
Supply Voltage		12-24 VDC			12-24 VDC		
Near Limit/Alarm	**Far Limit/Alarm**						
95.3 mm (3.75")	**102 mm (4")**						
	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 (5")						
	Pump-out	SM602A-520-00			SM652A-520-00		
	Pump-in	SM602A-520-10			SM652A-520-10		
76.2 mm (3")	**102 mm (4")**						
	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 (5")						
	Pump-out	SM602A-532-00			SM652A-532-00		
	Pump-in	SM602A-532-10			SM652A-532-10		
51 mm (2")	**102 mm (4")**						
	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 (3")	**127 mm (5")**						
	Pump-out		SM602A-532-00			SM652A-532-00	
	Pump-in		SM602A-532-10			SM652A-532-10	
102 mm (4")	**152 mm (6")**						
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**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
Additional cable lengths are available					

Model Number*							
Characteristics							
Housing Style/Material		**30 mm ULTEM®**	**30 mm Stainless**	**30 mm ULTEM®**	**30 mm Stainless**	**30 mm ULTEM®**	**30 mm ULTEM®**
Temperature Range C°		**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)
Connection Type		**3 m (10') Cable**			**M12 Connector**		
Supply Voltage		15-24 VDC			15-24 VDC		
Range	**Window**						
102 mm (4")	**70 mm (2.75")**						
	Inv. 0-10V 2.5ms	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	SM606A-444-01	SM606A-444-01S	SM606A-444-01FP	SM656A-444-01	SM656A-444-01S	SM656A-444-01FP
	Inv. 0-10V 1.5 ms	SM606A-444-02	SM606A-444-02S	SM606A-444-02FP	SM656A-444-02	SM656A-444-02S	SM656A-444-02FP
	Inv. 0-10V 2.5 ms	SM606A-444-03	SM606A-444-03S	SM606A-444-03FP	SM656A-444-03	SM656A-444-03S	SM656A-444-03FP
	Dir. 0-10V 1.5 ms	SM606A-444-04	SM606A-444-04S	SM606A-444-04FP	SM656A-444-04	SM656A-444-04S	SM656A-444-04FP
152 mm (6")	**117 mm (4.62")**						
	Inv. 0-10V 2.5ms	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	SM606A-674-01	SM606A-674-01S	SM606A-674-01FP	SM656A-674-01	SM656A-674-01S	SM656A-674-01FP
	Inv. 0-10V 1.5 ms	SM606A-674-02	SM606A-674-02S	SM606A-674-02FP	SM656A-674-02	SM656A-674-02S	SM656A-674-02FP
	Inv. 0-10V 2.5 ms	SM606A-674-03	SM606A-674-03S	SM606A-674-03FP	SM656A-674-03	SM656A-674-03S	SM656A-674-03FP
	Dir. 0-10V 1.5 ms	SM606A-674-04	SM606A-674-04S	SM606A-674-04FP	SM656A-674-04	SM656A-674-04S	SM656A-674-04FP

(*) 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-**0**0FP becomes SM606A-444-**1**0FP.
For connector versions: SM656A-444-**0**0FP becomes SM656A-444-**1**0FP.
Sensing distances: refer to www.SESensors.com

Accessories for SM606 Series					
Straight	**Connection type**	**Length**	**90°**	**Connection type**	**Length**
XSCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
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®**
Temperature Range C°		**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)	**0 to 60** (32 to 140° F)
Connection Type		**3 m (10') Cable**			**M12 Connector**		
Supply Voltage		12-24 VDC			12-24 VDC		
Range	**Window**						
38.1 mm (1.5")	**12.7 mm (0.5")**						
	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-A08-02	SM657A-A08-02FP
51 mm (2")	**3 mm (0.125")**						
		SM607A-202-00	SM607A-202-00S	SM607A-202-00FP	SM657A-202-00	SM657A-202-00S	SM657A-202-00FP
	6 mm (0.25")						
		SM607A-204-00	SM607A-204-00S	SM607A-204-00FP	SM657A-204-00	SM657A-204-00S	SM657A-204-00FP
	13 mm (0.5")						
		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**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
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**
Temperature Range C°	**0 to 50 (32 to 122° F) (Ultem) -20 to 50 (-4 to 122° F) (Stainless)**			
Connection Type	**3 m (10') Cable**		**M12 Connector**	
Supply Voltage	12-24 VDC		12-24 VDC	
Sensing Range				
51 mm (2") - 1 m (39")				
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 (4.7") - 2 m (79")				
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 (4.7") - 1 m (39")				
NO NPN & PNP Stainless Steel Transducer		SM9000A-700000STS		SM9500A-700000STS
203 mm (8") - 8 m (315")				
Object Proximity	SM9000A-800000		SM9500A-800000	

(*) All possible sensor configurations are not listed here

Accessories for SM900 Series					
Straight	**Connection type**	**Length**	**90°**	**Connection type**	**Length**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
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**
Temperature Range C°		**0 to 50 (32 to 122° F) (Ultem) -20 to 50 (-4 to 122° F) (Stainless)**			
Connection Type		**3 m (10') Cable**		**M12 Connector**	
Supply Voltage		12-24 VDC		12-24 VDC	
Sensing Range					
51 mm (2") - 1 m (39")					
	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
120 mm (4.7") - 2 m (79")					
	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
120 mm (4.7") - 1 m (39")					
	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
203 mm (8") - 8 m (315")					
	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**
XSZCD101Y	M12 connector	2 m (6.6')	XSZCD111Y	M12 connector	2 m (6.6')
Additional cable lengths are available					

SM906 Series — Ultrasonic Sensors
Analog Output

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**
Temperature Range C°	**0 to 50 (32 to 122° F) (Ultem) -20 to 50 (-4 to 122° F) (Stainless)**			
Connection Type	**3 m (10') Cable**		**M12 Connector**	
Supply Voltage	15-24 VDC		15-24 VDC	
Sensing Range				
51 mm (2") - 1 m (39")				
Inverse 0-10V				
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
Direct 0-10V				
Max output state on loss of echo	SM906A-111000	SM906A-111000S	SM956A-111000	SM956A-111000S
Inverse 4-20 mA				
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
Direct 4-20 mA				
Hold on loss of echo min. power up	SM906A-132000	SM906A-132000S	SM956A-132000	SM956A-132000S
120 mm (4.7") - 2 m (79")				
Inverse 0-10V				
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
Direct 0-10V				
Max output state on loss of echo	SM906A-411000	SM906A-411000S	SM956A-411000	SM956A-411000S
Inverse 4-20 mA				
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
Direct 4-20 mA				
Hold on loss of echo min. power up	SM906A-432000	SM906A-432000S	SM956A-432000	SM956A-432000S
120 mm (4.7") - 1 m (39")				
Inverse 4-20 mA				
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-723000STS		SM956A-723000STS
203 mm (8") - 8 m (315")				
Inverse 0-10V				
Min output state on loss of echo	SM906A-800000		SM956A-800000	
Inverse 4-20 mA				
Min output state on loss of echo	SM906A-820000		SM956A-820000	
Direct 4-20 mA				
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**
XXZAC130	M12 connector	2 m (6.6')	XXZAC132	M12 connector	2 m (6.6')
Additional cable lengths are available					

For application assistance or to find your distributor
please call 1-800-435-2121
or visit www.SESensors.com

Schneider Electric Sensor Competency Center
1875 Founders Drive, Dayton OH 45420-4017

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