

# Product data sheet

Specifications



## Inductive proximity sensors XS, inductive sensor XS5 M12, L50mm, brass, Sn2mm, 12...24 VDC, M12

XS512B1PAM12

### Main

Range of product	Telemecanique Inductive proximity sensors XS
Series name	General purpose
Sensor type	Inductive proximity sensor
Device application	-
Sensor name	XS5
Sensor design	Cylindrical M12
Size	50 mm
Body type	Fixed
Detector flush mounting acceptance	Flush mountable
Material	Metal
Type of output signal	Discrete
Wiring technique	3-wire
[Sn] nominal sensing distance	2 mm
Discrete output function	1 NO
Output circuit type	DC
Discrete output type	PNP
Electrical connection	Male connector M12, 4 pins
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Switching capacity in mA	<= 200 mA DC with overload and short-circuit protection
IP degree of protection	IP67 conforming to IEC 60529 IP69K conforming to DIN 40050

### Complementary

Thread type	M12 x 1
Detection face	Frontal
Front material	PPS
Enclosure material	Nickel plated brass
Operating zone	0...1.6 mm
Differential travel	1...15% of Sr

Status LED	Output state: 1 LED (yellow)
Supply voltage limits	10...36 V DC
Switching frequency	<= 5000 Hz
Maximum voltage drop	<2 V (closed)
Current consumption	<= 10 mA no-load
Maximum delay first up	10 ms
Maximum delay response	0.1 ms
Maximum delay recovery	0.1 ms
Marking	CE
Threaded length	30 mm
Length	50 mm
Net weight	0.035 kg

### Environment

Product certifications	UL CSA
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Vibration resistance	25 gn amplitude = +/- 2 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
Shock resistance	50 gn for 11 ms conforming to IEC 60068-2-27

### Packing Units

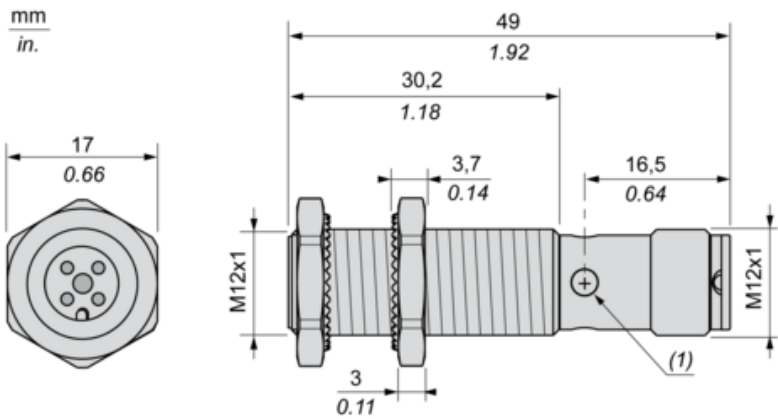
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 cm
Package 1 Width	9.7 cm
Package 1 Length	6.5 cm
Package 1 Weight	262 g
Unit Type of Package 2	S02
Number of Units in Package 2	44
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	1.656 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

Circularity Profile	<a href="#">End of Life Information</a>
California proposition 65	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
Contractual warranty	
Warranty	18 months

Dimensions



(1) : LED

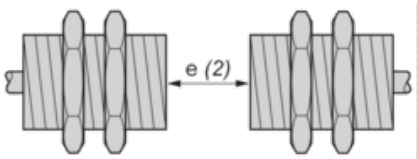
Minimum Mounting Distances

Side by side



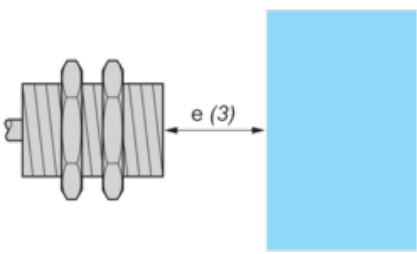
$e\ (1) \geq 4\text{ mm}/0.16\text{ in.}$

Face to face



$e\ (2) \geq 24\text{ mm}/0.94\text{ in.}$

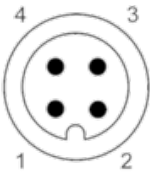
Facing a metal object



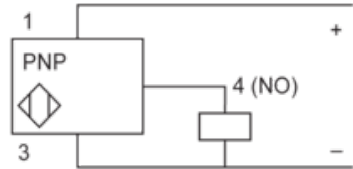
$e\ (3) \geq 6\text{ mm}/0.24\text{ in.}$

Wiring Schemes

M12 connector



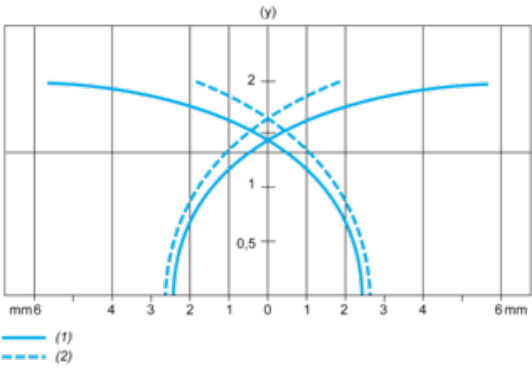
PNP



- 1 : (+)
- 2 : Not connected
- 3 : (-)
- 4 : NO Output

Performance Curves

Standard Steel Target : 12x12x1 mm



- (1) Pick-up points
- (2) Drop-out points (object approaching from the side)
- (y) Sensing distance in mm

Recommended replacement(s)