



### Main

Range of product	OsiSense XS
Series name	General purpose
Sensor type	Inductive proximity sensor
Device application	Mobile equipment
Sensor name	XS1
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	4-wire
[Sn] nominal sensing distance	4 mm
Discrete output function	1 NO + 1 NC
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 overload and short-circuit protection
IP degree of protection	IP69K conforming to DIN 40050 IP65 IEC 60529 IP67

### Complementary

Safety level	SIL 2 EN/IEC 61508 PL = d EN/ISO 13849-1 SILCL 2 IEC 62061
Safety reliability data	MTTFd = 1810 years PFHd = 62.9E-9 1/h SFF = 92 % DC = 74 % with appropriate safety controller
Service life	20 year(s)

Thread type	M12 x 1
Detection face	Frontal
Front material	PPS
Enclosure material	Nickel plated brass
Operating zone	0.00...0.13 in (0...3.2 mm)
Differential travel	3...15% of Sr
Status LED	Output state: 1 LED (yellow)
Supply voltage limits	9...36 V DC
Switching frequency	<= 5000 Hz
Maximum voltage drop	<2 V closed)
Current consumption	0...10 mA no-load
Maximum delay first up	5 ms
Maximum delay response	0.1 ms
Maximum delay recovery	0.1 ms
Marking	CE
Threaded length	1.18 in (30 mm)
Length	1.97 in (50 mm)
Net weight	0.04 lb(US) (0.02 kg)

## Environment

Standards	IEC 62061 EN/ISO 13849-1
Product certifications	TÜV E2 UL CSA
Ambient air temperature for operation	-13...158 °F (-25...70 °C)
Ambient air temperature for storage	-40...185 °F (-40...85 °C)
Vibration resistance	25 gn +/- 2 mm 10...55 Hz)IEC 60068-2-6
Shock resistance	50 gn 11 ms IEC 60068-2-27

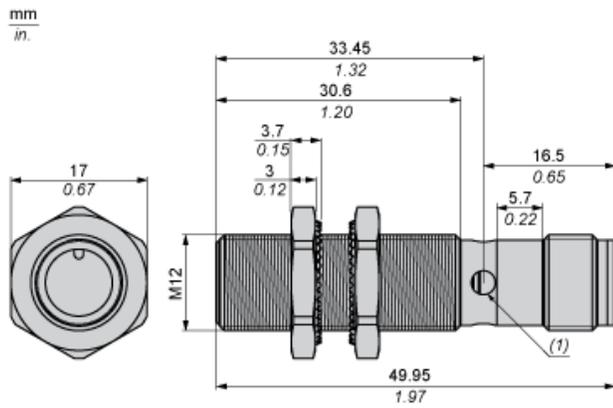
## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	1.51 oz (42.9 g)
Package 1 Height	1.61 in (4.1 cm)
Package 1 width	2.56 in (6.5 cm)
Package 1 Length	3.74 in (9.5 cm)

## Offer Sustainability

RECh 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>

Dimensions



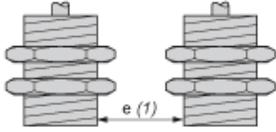
(1) LED

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Minimum Mounting Distances

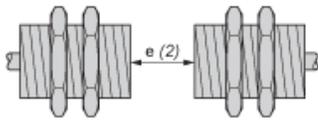
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Side by side



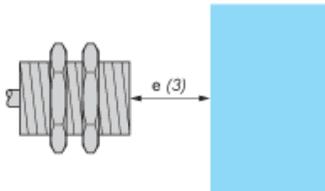
$e (1) \geq 8 \text{ mm}/0.31 \text{ in.}$

Face to face



$e (2) \geq 48 \text{ mm}/1.89 \text{ in.}$

Facing a metal object



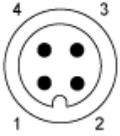
$e (3) \geq 12 \text{ mm}/0.47 \text{ in.}$

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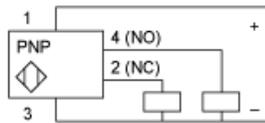
## Wiring Schemes

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M12 connector

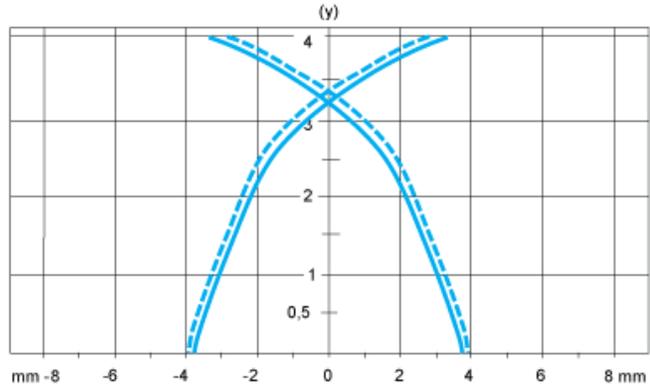


PNP 4-wire



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