

Product data sheet

Characteristics

XXV18B1NBL2

Ultrasonic sensor - M18 metal - Sn 50mm - NPN
NC - cable 2m



Main

Range of product	OsiSense XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XXV
Sensor design	Cylindrical M18
Detection system	Diffuse
[Sn] nominal sensing distance	0.16 ft (0.05 m) fixed
Material	Metal
Type of output signal	Discrete
Discrete output function	1 NC
Wiring technique	3-wire
Discrete output type	NPN
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Cable, 6.56 ft (2 m) cable length
[Sd] sensing range	0.01...0.16 ft (0.003...0.05 m)
Beam angle	10 °
IP degree of protection	IP67 conforming to IEC 60529

Complementary

Enclosure material	Brass
Front material	Epoxy
Thread type	M18 x 1
Supply voltage limits	10...36 V DC
[Sa] assured operating distance	0.01...0.16 ft (0.003...0.05 m)
Maximum differential travel	0.12 in (3 mm)
Blind zone	0...0.12 in (0...3 mm)
Transmission frequency	360 kHz
Repeat accuracy	1.5 %
Deviation angle from 90° of object to be detected	-8...8 °
Minimum size of detected object	Cylinder diameter 2 mm at 0.02 m

Status LED	1 LED (yellow) output state
Current consumption	15 mA
Maximum switching current	200 mA with overload and short-circuit protection
Voltage drop	< 2 V
Switching frequency	<= 80 Hz
Delay first up	5 ms
Delay response	4 ms
Delay recovery	4 ms
Marking	CE
Threaded length	2.01 in (51 mm)
Height	0.71 in (18 mm)
Width	0.71 in (18 mm)
Depth	2.56 in (65 mm)
Product weight	0.24 lb(US) (0.11 kg)

Environment

Standards	IEC 60947-5-2
Product certifications	cULus
Ambient air temperature for operation	32...140 °F (0...60 °C)
Ambient air temperature for storage	-40...176 °F (-40...80 °C)
Vibration resistance	+/- 2 mm conforming to IEC 60068-2-6 10...55 Hz
Shock resistance	50 gn in all 3 axes 11 ms conforming to IEC 60068-2-27
Resistance to electrostatic discharge	8 kV level 4 conforming to IEC 61000-4-2
Resistance to electromagnetic fields	9.14 V/yd (10 V/m) level 3 conforming to IEC 61000-4-3
Resistance to fast transients	1 kV level 3 conforming to IEC 61000-4-4

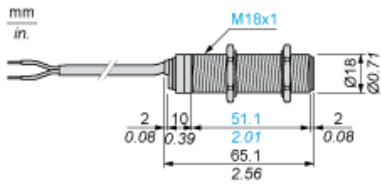
Offer Sustainability

RoHS (date code: YYWW)	Will not be compliant Will not be compliant
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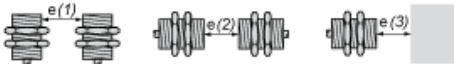
Contractual warranty

Warranty period	18 months
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Dimensions

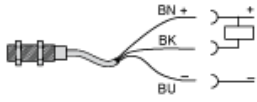


Minimum Mounting Distances



- e(1) > 25 mm
- e(2) > 700 mm
- e(3) > 60 mm

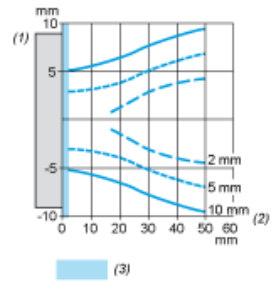
Wiring Diagram



BN Brown
BU Blue
BK Black

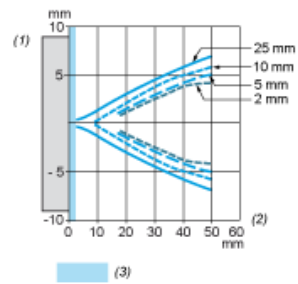
Curves

Square Object



- (1) Parallel movement
- (2) Distance
- (3) Blind zone for diffuse sensors.

Cylindrical Object



- (1) Parallel movement
- (2) Distance
- (3) Blind zone for diffuse sensors.