



Main

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|-------------------------------|---|
| Range of product | OsiSense XX |
| Sensor type | Ultrasonic sensor |
| Series name | General purpose |
| Sensor name | XXS |
| Sensor design | Cylindrical M18 |
| Detection system | Diffuse |
| [Sn] nominal sensing distance | 3.28 Ft (1 m) adjustable with remote teach push-button 3.28 ft (1 m) software with kit |
| Material | Metal |
| Type of output signal | Discrete |
| Discrete output function | 1 NO or 1 NC programmable |
| Wiring technique | 5-wire |
| Discrete output type | PNP |
| [Us] rated supply voltage | 12...24 V DC reverse polarity protection |
| Electrical connection | Male connector M12 5 pins |
| [Sd] sensing range | 0.34...3.28 ft (0.105...1 m) |
| IP degree of protection | IP65 IEC 60529 IP67 |

Complementary

| | |
|---|---|
| Enclosure material | Stainless steel 316L |
| Front material | Epoxy Rubber Resin |
| Supply voltage limits | 10...30 V DC |
| Function available | With synchronisation mode Software configurable |
| [Sa] assured operating distance | 0.34...3.28 ft (0.105...1 m) teach mode) |
| Maximum differential travel | 0.16 in (4 mm) |
| Blind zone | 4.13 in (105 mm) |
| Transmission frequency | 200 kHz |
| Repeat accuracy | 0.1 % |
| Deviation angle from 90° of object to be detected | -10...10 ° |
| Minimum size of detected object | Cylinder diameter 1 mm 23.62 in (600 mm) |
| Status LED | Output state 1 LED yellow) Echo state 1 LED green) |
| Current consumption | 30 mA |
| Maximum switching current | 100 mA overload and short-circuit protection |
| Maximum voltage drop | 2 V |
| Switching frequency | 11 Hz |
| Setting-up | Teach mode Configurator software |
| Maximum delay first up | 120 ms |
| Maximum delay response | 45 ms |
| Maximum delay recovery | 45 ms |
| Marking | CE |
| Threaded length | 1.77 in (45 mm) |

| | |
|---------------|-----------------------|
| Height | 0.71 in (18 mm) |
| Maximum Width | 0.71 in (18 mm) |
| Depth | 2.52 in (64 mm) |
| Net Weight | 0.11 lb(US) (0.05 kg) |

Environment

| | |
|---------------------------------------|---|
| Standards | EN/IEC 60947-5-2 CSA C22.2 No 14 UL 508 |
| Product certifications | EAC RCM CULus E2 Ecolab |
| Ambient air temperature for operation | -13...158 °F (-25...70 °C) |
| Ambient air temperature for storage | -40...176 °F (-40...80 °C) |
| Vibration resistance | +/-1 mm 10...55 Hz)IEC 60068-2-6 |
| Shock resistance | 30 gn in all 3 axes 11 ms IEC 60068-2-27 |
| Resistance to electrostatic discharge | 8 kV level 4 IEC 61000-4-2 |
| Resistance to electromagnetic fields | 9.14 V/m (10 V/m) level 3 IEC 61000-4-3 |
| Resistance to fast transients | 1 kV level 3 IEC 61000-4-4 |

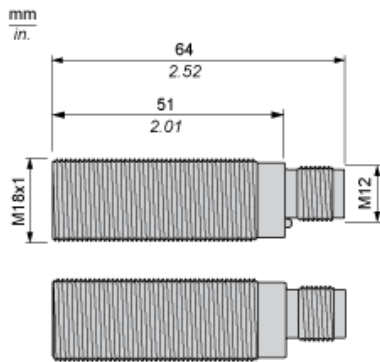
Ordering and shipping details

| | |
|-----------------------|---|
| Category | 22489 - SENSORS XX ULTRASONIC GEN PURPOSE |
| Discount Schedule | DS2 |
| GTIN | 00785901060178 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 0.11 lb(US) (0.05 kg) |
| Returnability | Yes |
| Country of origin | US |

Offer Sustainability

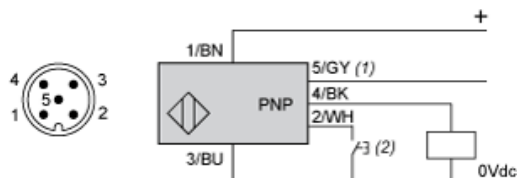
| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| Environmental Disclosure | Product Environmental Profile |

Dimensions



Connections

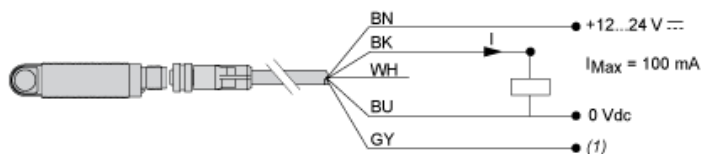
Connector Wiring



- (1) : Synchronization
(2) : External setting pushbutton or XXZPB100 remote teach pushbutton.

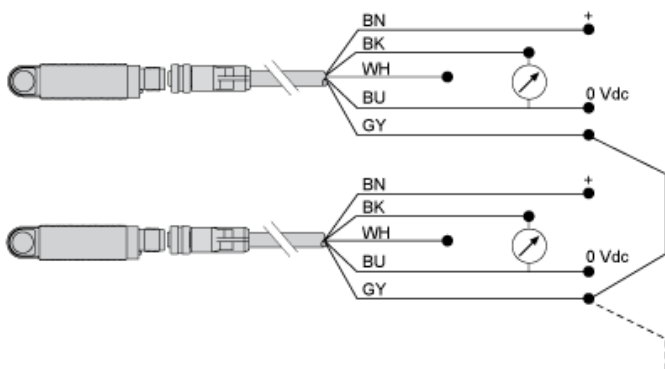
| Pin number | Wire color | Description |
|------------|------------|-----------------|
| 1 | BN: Brown | +12...24VDC |
| 2 | WH: White | Input teach |
| 3 | BU: Blue | 0 VDC |
| 4 | BK: Black | Output |
| 5 | GY: Grey | Synchronization |

Wiring Scheme



- (1) : Synchronization

Wiring for the Synchronization Function (Side by Side Application)

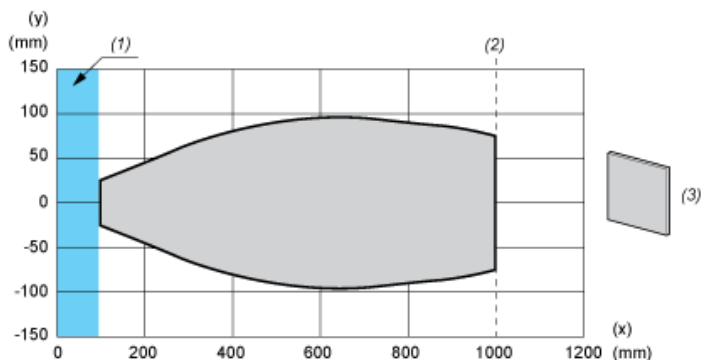


BN : Brown
WH : White
BU : Blue
BK : Black
GY : Grey

NB: To enable synchronization between several sensors, all of the wires of pin no.5 (Grey) must be electrically connected together. A maximum of 8 sensors can be synchronized. To enable "Multiplexer" function for the sensors, use the XX Configuration Software. Without synchronization or multiplexing, the sensors must be at least 50 cm away from each other in order to avoid mutual interference.

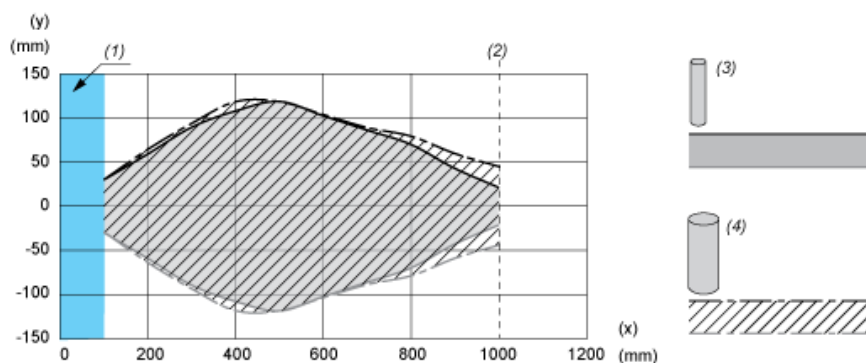
Performance Curves

Detection Curve with 100 x 100 mm / 3.94 x 3.94 in. Square Target



- (x) Target distance
- (y) Detection limit
- (1) : Blind zone: 105 mm
- (2) : Sn max.
- (3) : 100 x 100 mm / 3.94 x 3.94 in. stainless steel plate

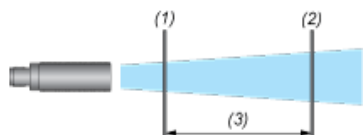
Detection Curve with Round Bar



- (x) Target distance
- (y) Detection limit
- (1) : Blind zone: 105 mm
- (2) : Sn max.
- (3) : Ø 10 mm / 0.394 in. stainless steel cylinder
- (4) : Ø 25 mm / 0.984 in. stainless steel cylinder

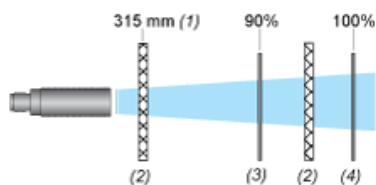
Operating Diagrams Settings with Teach Procedure

Window Mode



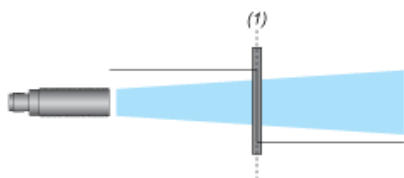
- (1) : Near limit
- (2) : Far limit
- (3) : Sensing window

Reflex Mode



- (1) : In reflex mode, the position of the reflector must be at least 315 mm away from the sensor.
- (2) : Reflector
- (3) : Near limit
- (4) : Far limit

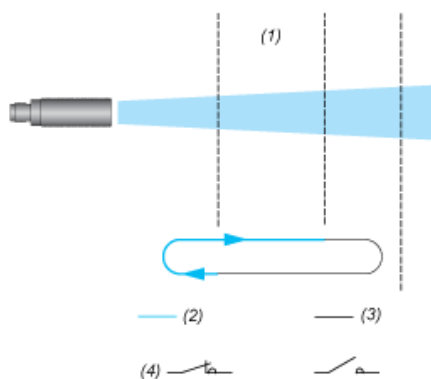
Proximity Mode



- (1) : Switch point

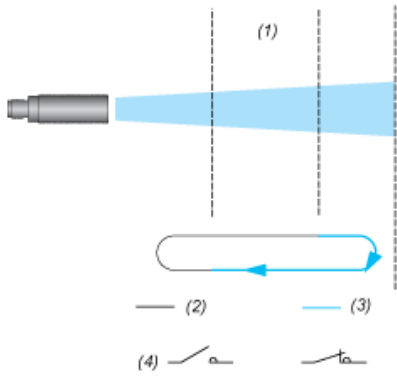
Pump/Hysteresis Mode

Emptying (stored in high threshold memory)



- (1) : Adjustable detection zone
- (2) : Output activated
- (3) : Output deactivated
- (4) : NO output

Filling (stored in low threshold memory)



- (1) : Adjustable detection zone
- (2) : Output activated
- (3) : Output deactivated
- (4) NO output