



Main

| | |
|-------------------------------|---|
| Range of product | OsiSense XX |
| Sensor type | Ultrasonic sensor |
| Series name | General purpose |
| Sensor name | XXA |
| Sensor design | Cylindrical M30 |
| Detection system | Diffuse (with 90° head) |
| [Sn] nominal sensing distance | 1 m adjustable with remote teach push-button |
| Material | Metal |
| Type of output signal | Analogue |
| Wiring technique | 5-wire |
| Analogue output function | 4...20 mA |
| [Us] rated supply voltage | 12...24 V DC with reverse polarity protection |
| Electrical connection | Male connector M12 5 pins |
| [Sd] sensing range | 0.155...1 m |
| IP degree of protection | IP65 conforming to 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 | 0.155...1 m (teach mode) |
| Blind zone | 155 mm |
| Transmission frequency | 120 kHz |
| Repeat accuracy | 0.1 % |
| Deviation angle from 90° of object to be detected | -15...15 ° |
| Minimum size of detected object | Cylinder diameter 1 mm at 1 m |
| Status LED | Output state: 1 LED (yellow) |

Echo state: 1 LED (green)

| | |
|----------------------------|--|
| Current consumption | 65 mA |
| Maximum switching capacity | 250 Ohm with 12 V DC overload and short-circuit protection 850 Ohm with 24 V DC |
| Setting-up | Teach mode Configurator software |
| Maximum delay first up | 180 ms |
| Maximum delay recovery | 100 ms |
| Marking | CE |
| Threaded length | 74.7 mm |
| Height | 30 mm |
| Width | 30 mm |
| Depth | 129.6 mm |
| Product weight | 0.17 kg |

Environment

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

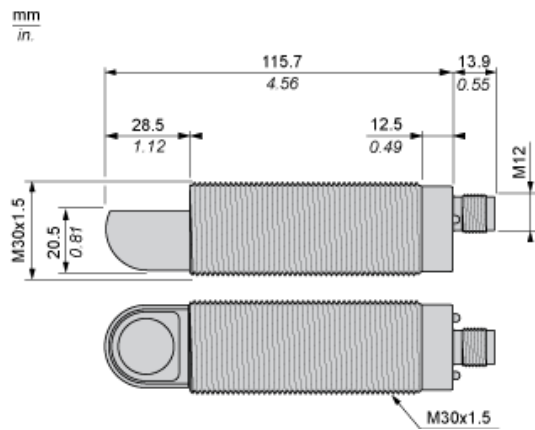
Offer Sustainability

| | |
|--------------------------|---|
| EU RoHS Directive | Not applicable, out of EU RoHS legal scope |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | No need of specific recycling operations |

Contractual warranty

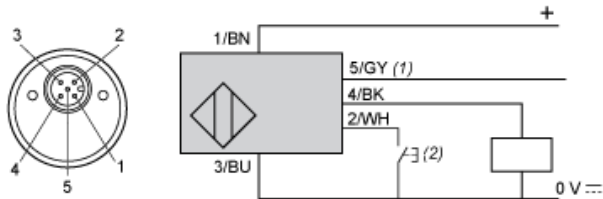
| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Dimensions



Connections

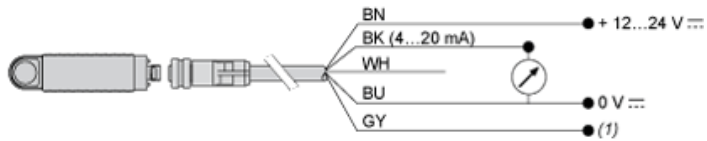
Connector Wiring



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

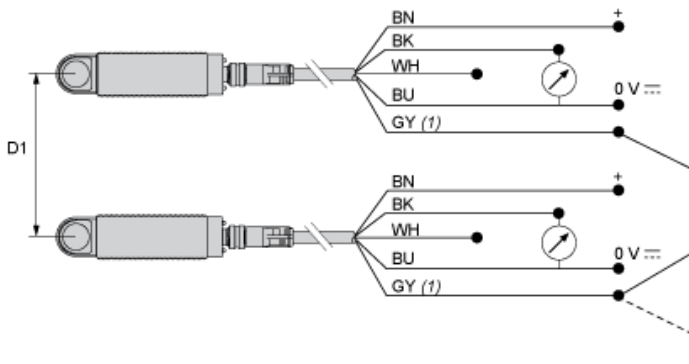
| Pin number | Wire color | Description |
|------------|------------|-----------------|
| 1 | BN: Brown | +12...24VDC |
| 2 | WH: White | Input teach |
| 3 | BU: Blue | 0 VDC |
| 4 | BK: Black | Output |
| 5 | GY: Grey | Synchronization |

Wiring Scheme. Analog Output



- (1) : Synchronization
4-20 mA For 12 VDC, load $\leq 250 \Omega$
For 24 VDC, load $\leq 850 \Omega$

Wiring for the Synchronization Function (Side by Side Application)



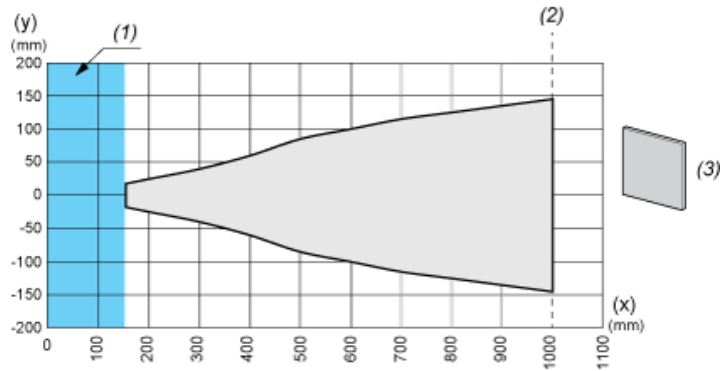
- (1) : Synchronization
D1 : 1/8 Sn
BN : Brown
WH : White
BU : Blue
BK : Black
GY : Grey

NOTE: Up to 8 sensors can be synchronized to operate side by side by electrically connecting all pin no.5 (grey) wires together.

To synchronize more than 8 sensors, a PLC output can be used (the pins no.5 must be simultaneously driven by the rising edge of a pulse).

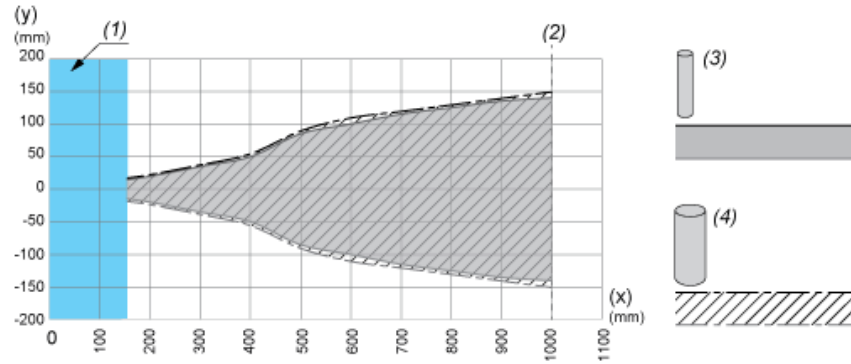
Performance Curves

Detection Curve with 100 x 100 mm / 3.94 x 3.94 inches Square Target



- (X) : Target distance
- (Y) : Detection limit
- (1) : Blind zone: 155 mm / 6.10 inches
- (2) : Sn max.
- (3) : 100 x 100 mm / 3.94 x 3.94 inches stainless steel plate

Detection Curve with Round Bar



- (X) : Target distance
- (Y) : Detection limit
- (1) : Blind zone: 155 mm / 6.10 inches
- (2) : Sn max.
- (3) : Ø 10 mm / 0.394 inches stainless steel cylinder
- (4) : Ø 25 mm / 0.984 inches stainless steel cylinder