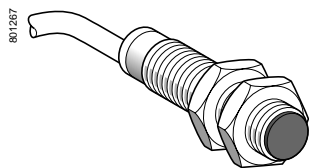


Inductive proximity sensors

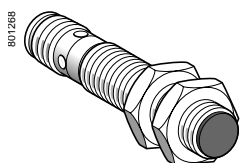
Osiprox® Universal

Cylindrical, flush mountable

Three-wire, d.c. supply, solid-state output



XS6 ●●B1●●L2



XS6 ●●B1●●M12

Ø 8

| Sensing distance (Sn) mm | Function | Output | Connection | Reference | Weight kg |
|-----------------------------|----------|--------|--------------------------|----------------------|--------------|
| 2.5 | NO | PNP | Pre-cabled (L = 2 m) (1) | XS6 08B1PAL2 | 0.035 |
| | | | M12 connector | XS6 08B1PAM12 | 0.015 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 08B1NAL2 | 0.035 |
| | | | M12 connector | XS6 08B1NAM12 | 0.015 |
| | NC | PNP | Pre-cabled (L = 2 m) (1) | XS6 08B1PBL2 | 0.035 |
| | | | M12 connector | XS6 08B1PBM12 | 0.015 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 08B1NBL2 | 0.035 |
| | | | M12 connector | XS6 08B1NBM12 | 0.015 |

Ø 12

| Sensing distance (Sn) mm | Function | Output | Connection | Reference | Weight kg |
|-----------------------------|----------|--------|--------------------------|----------------------|--------------|
| 4 | NO | PNP | Pre-cabled (L = 2 m) (1) | XS6 12B1PAL2 | 0.075 |
| | | | M12 connector | XS6 12B1PAM12 | 0.020 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 12B1NAL2 | 0.075 |
| | | | M12 connector | XS6 12B1NAM12 | 0.020 |
| | NC | PNP | Pre-cabled (L = 2 m) (1) | XS6 12B1PBL2 | 0.075 |
| | | | M12 connector | XS6 12B1PBM12 | 0.020 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 12B1NBL2 | 0.075 |
| | | | M12 connector | XS6 12B1NBM12 | 0.020 |

Ø 18

| Sensing distance (Sn) mm | Function | Output | Connection | Reference | Weight kg |
|-----------------------------|----------|--------|--------------------------|----------------------|--------------|
| 8 | NO | PNP | Pre-cabled (L = 2 m) (1) | XS6 18B1PAL2 | 0.100 |
| | | | M12 connector | XS6 18B1PAM12 | 0.040 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 18B1NAL2 | 0.100 |
| | | | M12 connector | XS6 18B1NAM12 | 0.040 |
| | NC | PNP | Pre-cabled (L = 2 m) (1) | XS6 18B1PBL2 | 0.100 |
| | | | M12 connector | XS6 18B1PBM12 | 0.040 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 18B1NBL2 | 0.100 |
| | | | M12 connector | XS6 18B1NBM12 | 0.040 |

Ø 30

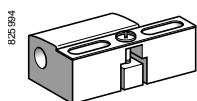
| Sensing distance (Sn) mm | Function | Output | Connection | Reference | Weight kg |
|-----------------------------|----------|--------|--------------------------|----------------------|--------------|
| 15 | NO | PNP | Pre-cabled (L = 2 m) (1) | XS6 30B1PAL2 | 0.205 |
| | | | M12 connector | XS6 30B1PAM12 | 0.145 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 30B1NAL2 | 0.205 |
| | | | M12 connector | XS6 30B1NAM12 | 0.145 |
| | NC | PNP | Pre-cabled (L = 2 m) (1) | XS6 30B1PBL2 | 0.205 |
| | | | M12 connector | XS6 30B1PBM12 | 0.145 |
| | | NPN | Pre-cabled (L = 2 m) (1) | XS6 30B1NBL2 | 0.205 |
| | | | M12 connector | XS6 30B1NBM12 | 0.145 |

Accessories (2)

| Description | | Reference | Weight kg |
|---------------|------|-----------------|--------------|
| Fixing clamps | Ø 8 | XSZ B108 | 0.006 |
| | Ø 12 | XSZ B112 | 0.006 |
| | Ø 18 | XSZ B118 | 0.010 |
| | Ø 30 | XSZ B130 | 0.020 |

(1) For a 5 m long cable, replace L2 with L5, and for a 10 m long cable, replace L2 with L10.
Example: XS6 08B1PAL2 becomes **XS6 08B1PAL5** with a 5 m long cable.

(2) For further information, see page 37317/2.



XSZ B●●●

Inductive proximity sensors

Osiprox® Universal

Cylindrical, flush mountable

Three-wire, d.c. supply, solid-state output

Characteristics

| Sensor type | | XS6 ●●B1●●M12 | XS6 ●●B1●●L2 |
|-----------------------------------|----------------------------|---|---|
| Product certifications | | UL, CSA, C€ | |
| Connection | Connector | M12 | — |
| | Pre-cabled | — | Length: 2 m |
| Operating zone | Ø 8 | mm 0...2 | |
| | Ø 12 | mm 0...3.2 | |
| | Ø 18 | mm 0...6.4 | |
| | Ø 30 | mm 0...12 | |
| Differential travel | | % 1...15 of real sensing distance (Sr) | |
| Degree of protection | | Conforming to IEC 60529 | IP 67 IP 68 double insulation □ (except Ø 8: IP 67) |
| Storage temperature range | | °C - 40...+ 85 | |
| Operating temperature range | | °C - 25...+ 70 | |
| Materials | Case | Nickel plated brass | |
| | Pre-cabled | PvR 3 x 0.34 mm² except XS6 08 3 x 0.11 mm² | |
| Vibration resistance | | Conforming to IEC 60068-2-6 25 gn, amplitude ± 2 mm (f = 10 to 55 Hz) | |
| Shock resistance | | Conforming to IEC 60068-2-27 50 gn, duration 11 ms | |
| Output state indication | | LED (yellow), 4 viewing ports at 90° | LED (yellow), annular |
| Rated supply voltage | | V — 12...48 with protection against reverse polarity | |
| Voltage limits (including ripple) | | V — 10...58 | |
| Switching capacity | | mA ≤ 200 with overload and short-circuit protection | |
| Voltage drop, closed state | | V ≤ 2 | |
| Current consumption, no-load | | mA ≤ 10 | |
| Maximum switching frequency | XS6 08B1●●●●, XS6 12B1●●●● | Hz 2500 | |
| | XS6 18B1●●●● | Hz 1000 | |
| | XS6 30B1●●●● | Hz 500 | |
| Delays | First-up | ms ≤ 10 | |
| | Response | ms ≤ 0.2 Ø8 and Ø12, ≤ 0.3 Ø18, ≤ 0.6 Ø30 | |
| | Recovery | ms ≤ 0.2 Ø8 and Ø12, ≤ 0.7 Ø18, ≤ 1.4 Ø30 | |

Wiring scheme

| Connector | Pre-cabled | PNP | NPN |
|-----------|---------------------------------------|-----|-----|
| M12 | BU : Blue BN : Brown BK : Black | | |

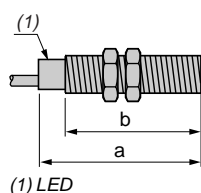
See connection on page 302 10/3.

Setting-up

Minimum mounting distances (mm)

| | Side by side | Face to face | Facing a metal object |
|------|--------------|--------------|-----------------------|
| Ø 8 | e ≥ 5 | e ≥ 30 | e ≥ 8 |
| Ø 12 | e ≥ 8 | e ≥ 50 | e ≥ 12 |
| Ø 18 | e ≥ 16 | e ≥ 100 | e ≥ 25 |
| Ø 30 | e ≥ 30 | e ≥ 180 | e ≥ 45 |

Dimensions



(1) LED

XS6

| XS6 | Pre-cabled (mm) | | Connector (mm) | |
|------|-----------------|----|----------------|----|
| | a | b | a | b |
| Ø 8 | 50 | 42 | 61 | 40 |
| Ø 12 | 50 | 42 | 61 | 42 |
| Ø 18 | 60 | 51 | 72.2 | 51 |
| Ø 30 | 60 | 51 | 72.2 | 51 |