# Product data sheet

Specifications



## Inductive proximity sensors XS, inductive sensor XS9 40x40x117, PBT, Sn25 mm, 12...24 VDC, terminals

XS9C4A2A2P20

## Main

| | |
|---|---|
| **Range of product** | Telemecanique Inductive proximity sensors XS |
| **Series name** | General purpose |
| **Sensor type** | Inductive proximity sensor |
| **Device application** | - |
| **Sensor name** | XS9 |
| **Sensor design** | Form 40 x 40 x 117 |
| **Size** | 117 mm |
| **Body type** | Fixed |
| **Detector flush mounting acceptance** | Non flush mountable |
| **Material** | Plastic |
| **Enclosure material** | PBT |
| **Type of output signal** | Analogue |
| **Wiring technique** | 2-wire |
| **[Sn] nominal sensing distance** | 25 mm |
| **Output circuit type** | DC |
| **Analogue output range** | 4...20 mA |
| **Electrical connection** | Screw-clamp terminals, 4 x 1.5 mm² |
| **[Us] rated supply voltage** | 12...24 V DC with reverse polarity protection |
| **IP degree of protection** | IP67 conforming to IEC 60529<br>IP65 conforming to IEC 60529<br>IP69K conforming to DIN 40050 |

## Complementary

| | |
|---|---|
| **Detection face** | 5 positions turret head |
| **Front material** | PBT |
| **Operating zone** | 2…27 mm |
| **Linearity error** | <= 3% of Sr |
| **Maximum output current drift** | 5 % |
| **Cable entry number** | 1 tapped entry for M20 x 1.5 cable gland |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **Status LED** | Output state: 1 LED (yellow) |
| **Supply voltage limits** | 12…36 V DC |
| **Current consumption** | 0...4 mA no-load |
| **Maximum delay first up** | 7.5 ms |
| **Maximum delay response** | 6 ms |
| **Maximum delay recovery** | 6 ms |
| **Marking** | CE |
| **Height** | 40 mm |
| **Length** | 40 mm |
| **Width** | 117 mm |
| **Net weight** | 0.244 kg |

## Environment

| | |
|---|---|
| **Product certifications** | CSA<br>UL |
| **Ambient air temperature for operation** | -25…70 °C |
| **Ambient air temperature for storage** | -40…85 °C |
| **Vibration resistance** | 25 gn amplitude = +/- 2 mm (f = 10…55 Hz) conforming to IEC 60068-2-6 |
| **Shock resistance** | 50 gn for 11 ms conforming to EN 60068-2-27 |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Weight** | 244.0 g |
| **Package 1 Height** | 5 cm |
| **Package 1 width** | 5 cm |
| **Package 1 Length** | 14.5 cm |

## Offer Sustainability

| | |
|---|---|
| **Sustainable offer status** | Green Premium product |
| **REACh Regulation** | REACh Declaration |
| **EU RoHS Directive** | Pro-active compliance (Product out of EU RoHS legal scope)<br>EU RoHS Declaration |
| **Mercury free** | Yes |
| **RoHS exemption information** | Yes |
| **Environmental Disclosure** | Product Environmental Profile |
| **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 |

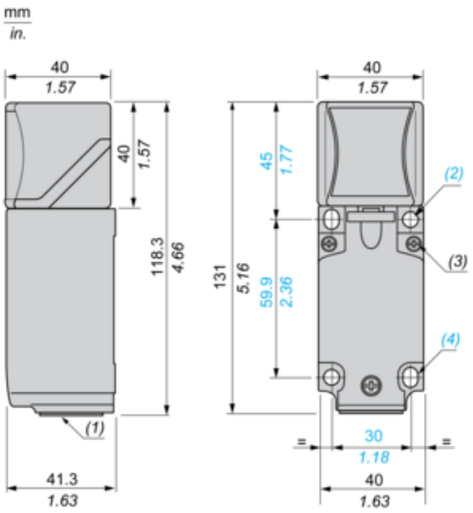
## Contractual warranty

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

# Product data sheet XS9C4A2A2P20

Dimensions Drawings

## Dimensions




**(1) :** M20 x 1.5 cable gland.

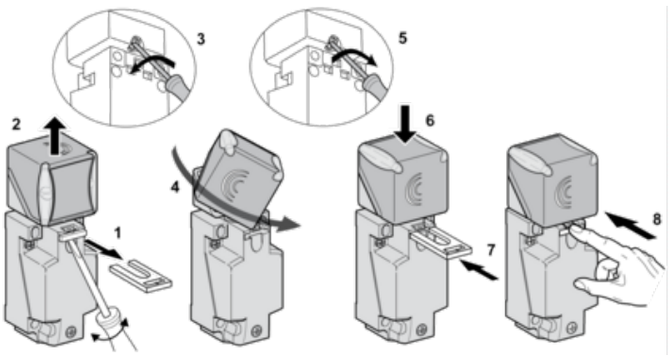
**(2) :** 2 holes Ø 5,45 mm / Ø 0.21 in. Tightening torque: < 1,5 Nm / < 13.3 lb-in.

**(3) :** 3 screws M3,5. Tightening torque: < 1,2 Nm / < 10.6 lb-in.

**(4) :** 2 alongated holes 5,4 x 7,4 mm / 0.21 x 0.29 in. Tightening torque: < 1,5 Nm / < 13.3 lb-in".

## Mounting

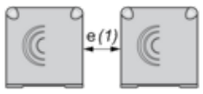
### Head Positions



## Setting-up Precautions

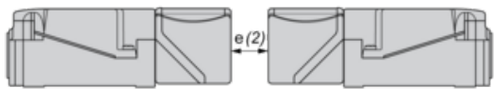
### Minimum Mounting Distances (mm)

**Side by Side**



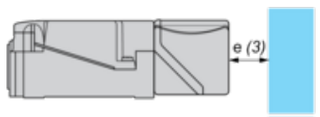

**e (1) ≥** 120

**Face to Face**




**e (2) ≥** 240

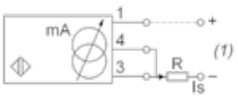
**Facing a Metal Object**




**e (3) ≥** 90

## Wiring Schemes

### 2-Wire

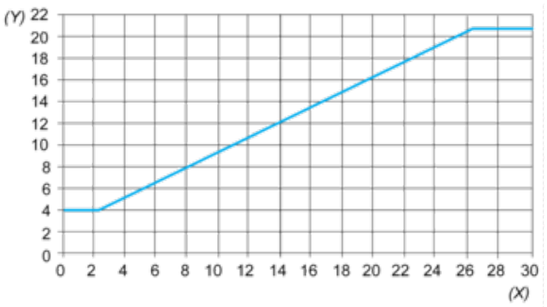



**(1)** Output current

Ensure a minimum of 10 V between the + and the - (terminal 3)of the sensor

| | Output current | Load impedance value |
|---|---|---|
| 12 V | 4...20 mA | R ≤ 82 Ω |
| 24 V | 4...20 mA | R ≤ 560 Ω |

## Analogue Outputs




**(Y)** Output current (mA)

**(X)** Sensing distance (mm)