

# XS9C4A1PCP20

Inductive proximity sensors XS, inductive sensor XS9 40x40x117, PBT, Sn20 mm, 12...24 VDC, terminals



## Main

|                                    |                                                                                               |
|------------------------------------|-----------------------------------------------------------------------------------------------|
| Range of product                   | Telemecanique Inductive proximity sensors XS                                                  |
| Series name                        | General purpose                                                                               |
| Sensor type                        | Inductive proximity sensor                                                                    |
| Device application                 | Welding machine<br>Factor 1 (Fe/Nfe)                                                          |
| Sensor name                        | XS9                                                                                           |
| Sensor design                      | Form 40 x 40 x 117                                                                            |
| Size                               | 117 mm                                                                                        |
| Body type                          | Fixed                                                                                         |
| Detector flush mounting acceptance | Flush mountable                                                                               |
| Material                           | Plastic                                                                                       |
| Enclosure material                 | PBT                                                                                           |
| Type of output signal              | Discrete                                                                                      |
| Wiring technique                   | 4-wire                                                                                        |
| [Sn] nominal sensing distance      | 20 mm                                                                                         |
| Discrete output function           | 1 NO + 1 NC                                                                                   |
| Output circuit type                | DC                                                                                            |
| Discrete output type               | PNP                                                                                           |
| Electrical connection              | Screw-clamp terminals, 4 x 1.5 mm <sup>2</sup>                                                |
| [Us] rated supply voltage          | 12...24 V DC with reverse polarity protection                                                 |
| Switching capacity in mA           | <= 200 mA with overload and short-circuit 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                | 0...16 mm                                                |
| Differential travel           | 3...15% of Sr                                            |
| Repeat accuracy               | <= 3% of Sr                                              |
| Electromagnetic compatibility | Immunity to magnetic fields - test level: 250 mT         |
| Cable entry number            | 1 tapped entry for M20 x 1.5 cable gland                 |
| Status LED                    | Supply on: 1 LED (green)<br>Output state: 1 LED (yellow) |
| Supply voltage limits         | 10...36 V DC                                             |
| Switching frequency           | <= 250 Hz                                                |
| Maximum voltage drop          | <2 V (closed)                                            |
| Current consumption           | 0...30 mA no-load                                        |
| Maximum delay first up        | 15 ms                                                    |
| Maximum delay response        | 2.5 ms                                                   |
| Maximum delay recovery        | 2.5 ms                                                   |
| Marking                       | CE                                                       |

|            |          |
|------------|----------|
| Height     | 40 mm    |
| Length     | 40 mm    |
| Width      | 117 mm   |
| Net weight | 0.244 kg |

## Environment

|                                       |                                                                         |
|---------------------------------------|-------------------------------------------------------------------------|
| Product certifications                | UL<br>CSA<br>CCC                                                        |
| 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

|                  |            |
|------------------|------------|
| Package 1 Weight | 230.000 g  |
| Package 1 Height | 137.000 mm |
| Package 1 width  | 43.000 mm  |
| Package 1 Length | 43.000 mm  |

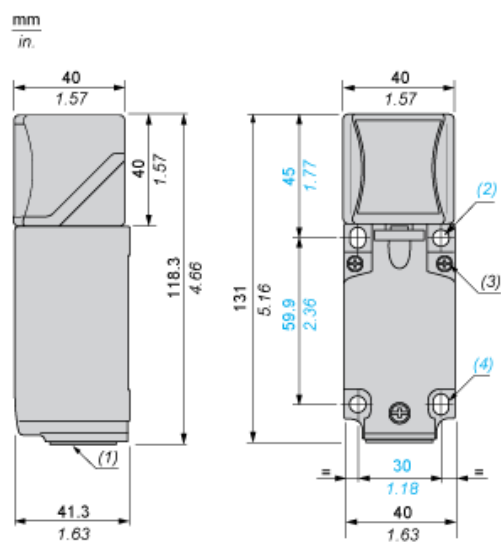
## Offer Sustainability

|                            |                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                          |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                              |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes                                                                                            |
| RoHS exemption information | <a href="#">Yes</a>                                                                            |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                  |

## Contractual warranty

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

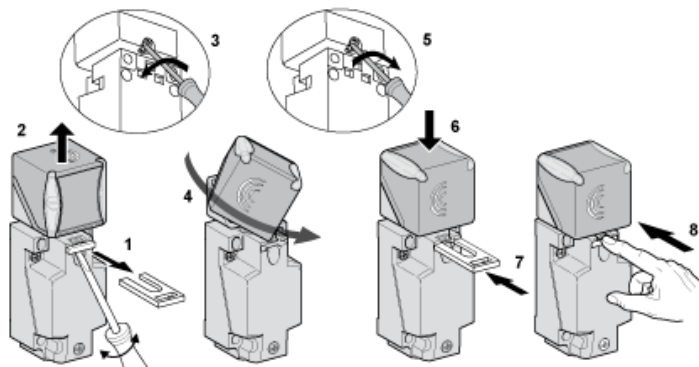
## Dimensions



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

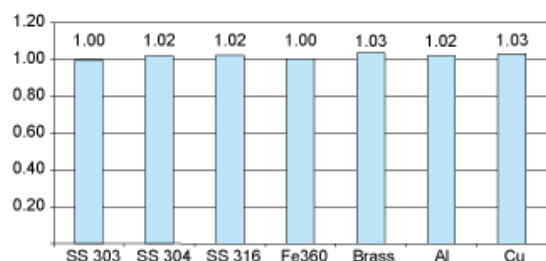
## Mounting

### Head Positions



## Setting-up

### Sensing Distance Correction Factor



SS : Stainless steel

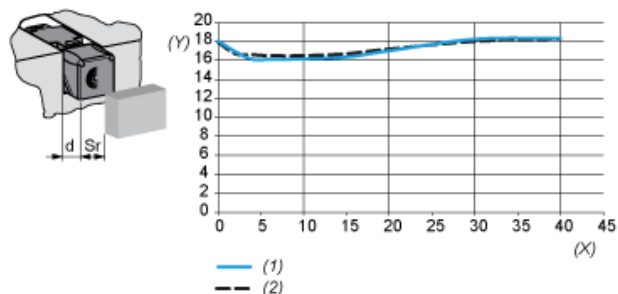
Fe : Steel

Al : Aluminium

Cu : Copper

## Setting-up

### Operating Distance (According to the Sensor's Level of Flush Mounting)



(y) Sensing distance (Sr) mm

(x) Sensing face/frame distance (d) mm

(1) Flush mounted in aluminium

(2) Flush mounted in Fe360

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## Wiring Schemes

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### 4-Wire DC

