#### Main

| - Main                             |  |
|------------------------------------|--|
| Range of product                   | Telemecanique Inductive proximity sensors XS         |
| Series name                        | General purpose                                      |
| Sensor type                        | Inductive proximity sensor                           |
| Device application                 | -  |
| Sensor name                        | XS1  |
| Sensor design                      | Cylindrical M5                                       |
| Size                               | 28 mm  |
| Body type                          | Fixed  |
| Detector flush mounting acceptance | Flush mountable                                      |
| Material                           | Stainless steel                                      |
| Type of output signal              | Discrete   |
| Wiring technique                   | 3-wire   |
| [Sn] nominal sensing distance      | 0.8 mm   |
| Discrete output function           | 1 NC   |
| Output circuit type                | DC   |
| Discrete output type               | PNP  |
| Electrical connection              | Cable  |
| Cable length                       | 5 m  |
| [Us] rated supply voltage          | 524 V DC   |
| Switching capacity in mA           | <= 100 mA with overload and short-circuit protection |
| IP degree of protection            | IP67 conforming to IEC 60529                         |

## Complementary

| Thread type        | M5 x 0.5            |
|--------------------|---------------------|
| Detection face     | Frontal             |
| Front material     | PPS                 |
| Enclosure material | Stainless steel 303 |

| Operating zone           | 00.6 mm                      |
|--------------------------|------------------------------|
| Cable composition        | 3 x 0.11 mm²                 |
| Wire insulation material | PvR                          |
| Status LED               | Output state: 1 LED (yellow) |
| Supply voltage limits    | 530 V DC                     |
| Switching frequency      | <= 5000 Hz                   |
| Maximum voltage drop     | <2 V (closed)                |
| Current consumption      | 010 mA no-load               |
| Maximum delay first up   | 5 ms                         |
| Maximum delay response   | 1 ms                         |
| Maximum delay recovery   | 1 ms                         |
| Marking                  | CE                           |
| Threaded length          | 24 mm                        |
| Length                   | 28 mm                        |

## **Environment**

| Product certifications                | UL<br>CSA  |
|---------------------------------------|--|
| Ambient air temperature for operation | -2570 °C   |
| Ambient air temperature for storage   | -4085 °C   |
| Vibration resistance                  | 25 gn amplitude = +/- 2 mm (f = 1055 Hz) conforming to IEC 60068-2-6 |
| Shock resistance                      | 50 gn for 11 ms conforming to IEC 60068-2-27                         |

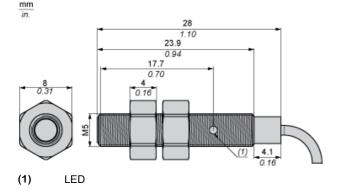
# **Contractual warranty**

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

# XS1N05PB311L1

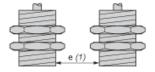
Dimensions Drawings

#### **Dimensions**



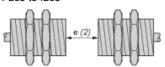
#### **Minimum Mounting Distances in mm**

Side by side



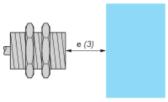
e (1) ≥ 2 mm/0.79 in.

Face to face



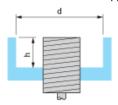
**e (2) ≥** 12 mm/0.47 in.

Facing a metal object



e (3) ≥ 3 mm/0.12 in.

Mounted in a metal support



**d** ≥ 5 mm/0.17 in.

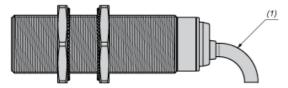
**h** ≥ 0 mm/0 in.

Tightening torque: 2.2 N.m. (values obtained with washers mounted)

# XS1N05PB311L1

Mounting and Clearance

## Mounting



(1) Bending cable: 4 x external cable diameter

# XS1N05PB311L1

Connections and Schema

#### Wiring Schemes

# PNP + BK/2 (NC)

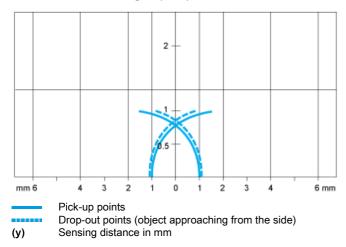
BU: Blue BN: Brown BK: Black

## XS1N05PB311L1

Performance Curves

#### **Performance Curves**

#### Standard Steel Target (mm): 5x5x1



#### Recommended replacement(s)

XS1N05PB311L1 is replaced by the following product range:



#### Inductive and capacitive sensors XS & XT

Inductive and capacitive proximity sensors

Products: 1398