Inductive proximity sensors

Cylindrical type, M18 x 1 threaded
Metal case (brass or stainless steel), form A
d.c. supply

References, characteristics, dimensions, schemes

Flush mountable in metal

![Diagram of inductive proximity sensor]

Lengths (mm):
- \(a\) = Overall length: 60
- \(b\) = Threaded section length: 51.5

<table>
<thead>
<tr>
<th></th>
<th>Brass case</th>
<th>Stainless steel case</th>
<th>Brass case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal sensing distance ((Sn))</td>
<td>5 mm</td>
<td>5 mm</td>
<td>5 mm</td>
</tr>
</tbody>
</table>

References

<table>
<thead>
<tr>
<th>3-wire</th>
<th>PNP NO</th>
<th>XS1-M18PA370</th>
<th>XS1-M18PA371</th>
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<td>PNP NC</td>
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4-wire universal model programmable:
- PNP/NPN NO/NC: XS1-M18KP340

Weight (kg):
- Brass case: 0.120
- Stainless steel case: 0.120
- Brass case: 0.120

Characteristics

Connection
Pre-cabled, 3 x 0.34 mm², length 2 m (1)

Degree of protection
IP 68

Operating zone
0…4 mm

Repeat accuracy
3 % of \(Sr\)

Differential travel
1…15 % of \(Sr\)

Operating temperature
-25…+80 °C

Output state indication
LED, annular

Rated supply voltage
≥ 12…48 V

Voltage limits (including ripple)
≥ 10…58 V (3)

Switching capacity
0…200 mA with overload and short-circuit protection

Voltage drop, closed state
≤ 2 V

Residual current, open state
–

Current consumption, no-load
≤ 10 mA

Maximum switching frequency
2000 Hz

Delays
First-up: ≤ 5 ms; response: ≤ 0.15 ms; recovery: ≤ 0.35 ms

Wiring schemes

3-wire: NO or NC output
XS1-M18ee370/371/370D

4-wire: programmable, NO or NC output
XS1-M18KP340/340D

Note: For XS1-M18ee370A sensors, NO or NC output on terminal 2

(1) Sensors pre-cabled with other cable lengths:
- Length of cable: Suffix to be added to references stated above for 2 m pre-cabled sensors
- Weight increase:
  - 5 m: L1: 0.120 kg
  - 10 m: L2: 0.320 kg

Example: Sensor XS1-M18PA370 with 5 m cable becomes XS1-M18PA370L1

(2) The type numbers refer to suitable female connectors and extension cables, see pages 3/4 to 3/6.

(3) Can be supplied with rectified ~ 24 V.

(4) ~ 24 V rectified and filtered.
### Connector (types 9, 10, 15, 16) (2)

Depending on connector (see pages 3/4 to 3/6)

<table>
<thead>
<tr>
<th>Connector</th>
<th>Side by side</th>
<th>Face to face</th>
<th>Facing a metal object</th>
<th>Mounted in a metal support</th>
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| Connector (type 17) (2) | 0.060 | 0.060 | 0.065 |

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### Setting-up

- Minimum mounting distances (mm)
  - XS1 flush mountable in metal: $e \geq 10$, $e \geq 60$, $e \geq 15$, $d \geq 18$, $h \geq 0$
  - Fixing nut tightening torque: $< 35 \text{ N.m (brass case)}$, $< 50 \text{ N.m (stainless steel case)}$

### Other versions

Inductive proximity sensors specifically designed for other ambient operating temperatures. Please consult your local Customer support centre.