The **S10** series, in a practical and sturdy tubular M18 metal housing, suits the more difficult applications in the mechanical or food industries. The IP69K mechanical protection guarantees resistance to washdown with water jets at high temperatures reaching 80°C and pressure reaching 100 bar. Moreover, AISI-316L stainless steel versions are available for a major resistance towards chemical agents and aggressive detergents as well as to acid corrosion. The lens in PMMA plastic offers the possibility of mounting a glass MEK-proof protection. A reflector with IP69K mechanical protection is available for the retroreflex versions. The **S10** series includes adjustable proximity versions reaching 10, 35 or 60 cm and 14 mm fixed focus proximity, 4 m retroreflex and 3 m polarised retroreflex, 0.8 m retroreflex for transparents as well as 18 m through beam models. The M12 connection requires only 3 wires for power supply and NPN or PNP output.
**TECHNICAL DATA**

- **Power supply:** 10...30 Vdc, reverse polarity protection
- **Consumption:** 30 mA max.
- **Light emission:** infrared LED 880 nm, red LED 660 nm (B, D, T vers.)
- **Diffuse proximity operating distance:** 1...10 cm (C01), 1...35 cm (C11), 1...60 cm (C21)
- **Fixed focus operating distance:** 14 mm with 1.5 mm spot
- **Retroreflex operating distance:** 0.1...4 m (on R2)
- **Polarised retroreflex operating distance:** 0.1...3 m (on R2)
- **RRX for transparencies operating distance:** 0.1...0.8 m (on R2)
- **Through beam operating distance:** 0...18 m
- **Setting:** sensitivity trimmer
- **Indicators:** yellow OUTPUT LED, green STABILITY LED, green POWER LED (G vers.)
- **Output type:** NPN or PNP, open collector
- **Saturation voltage:** 1 V max.
- **Output current:** 150 mA max., short-circuit protection
- **Response time:** 1 ms max., 2 ms max. (F vers.)
- **Switching frequency:** 500 Hz max., 250 Hz max. (F vers.)
- **Emitter Test input:** Test+ (XE vers.), Test- (XF vers.)
- **Connection:** M12 4-pole connector
- **Electrical protection:** class 1
- **Mechanical protection:** IP69K
- **Housing material:** nickel-plated brass (S10-MA vers.), AISI 316L stainless steel (S10-NA vers.)
- **Lens material:** PMMA plastic
- **Weight:** 50 g max.
- **Operating temperature:** -25...+55°C
- **Storage temperature:** -25...+70°C
- **Reference standard:** EN 60947-5-2
- **Certifications:** CE, RoHS, eco, E3

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**DETECTION DIAGRAMS**

The operating distances indicate the detection distance with excess gain 2.

The detection diagrams indicate the typical operating distance with excess gain 1.
CONNECTIONS

**NPN OUTPUT**
- **BROWN** 1 → +10 ... 30 Vdc
- **BLACK** 4
- **BLUE** 3 → 0 V

**PNP OUTPUT**
- **BROWN** 1 → +10 ... 30 Vdc
- **BLACK** 4
- **BLUE** 3 → 0 V

**M12 CONNECTOR**

**S10-XX-5-A / B / C / D / F / T**

**TEST +**
- **BROWN** 1 → +10 ... 30 Vdc
- **BLACK** 4 → TEST +
- **BLUE** 3 → 0 V

**TEST -**
- **BROWN** 1 → +10 ... 30 Vdc
- **BLACK** 4 → TEST -
- **BLUE** 3 → 0 V

**S10-XX-5-G00-XE**

**S10-XX-5-G00-XF**

DIMENSIONS

**MODELS**

<table>
<thead>
<tr>
<th>A01</th>
<th>C01</th>
<th>C11</th>
<th>C21</th>
<th>D14</th>
<th>F01</th>
<th>T01</th>
<th>B01</th>
<th>G00</th>
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<tbody>
<tr>
<td>L</td>
<td>65.1</td>
<td>10</td>
<td>20</td>
<td>8</td>
<td>3.5</td>
<td>24</td>
<td>4</td>
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<td>X1</td>
<td>41.3</td>
<td>43.6</td>
<td>31.3</td>
<td>51</td>
<td>51</td>
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**R4K REFLECTOR**

**MEK PROOF**

- Ø22
- Ø13
- M18x1
- glass

- mm
### ACCESSORY SELECTION AND ORDER INFORMATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>OPTIC FUNCTION</th>
<th>HOUSING</th>
<th>OUT (IN)</th>
<th>ORDER N°</th>
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<td>S10-MA-5-A01-ND</td>
<td>retroreflex</td>
<td>nickel plated brass</td>
<td>PNP, dark</td>
<td>952101100</td>
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<tr>
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<td>AISI 316L stainless steel</td>
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Please refer also to **Sensor Accessories**

Datasensor SpA endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use Datasensor SpA can guarantee only the data indicated in the instruction manual supplied with the products.