Retroreflective sensor with polarization filter

Model Number
ML8-55-3476/102
Retroreflective sensor with 2 m fixed cable

Features
- Cost-optimized series for standard tasks
- Miniature design
- DIN-connector
- Yellow LED indicator behind the front panel
- Flexible mounting possibilities due to slotted hole

Product information
Small, robust and reliable, the ML8 series of miniature sensors is particularly suitable for non-contact detection of objects in confined spaces. The LED indicator is located behind the lens and provides reliable information on the sensor’s operating status. The LED is always visible, even if the sensor is completely embedded. Flexible mounting options and fixed preset detection ranges simplify setup and operation.

Dimensions

Electrical connection

<table>
<thead>
<tr>
<th>Option</th>
<th>3476/102</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td>2</td>
<td>0 V</td>
</tr>
<tr>
<td>3</td>
<td>+UB</td>
</tr>
<tr>
<td>4</td>
<td>n.c.</td>
</tr>
<tr>
<td>5</td>
<td>n.c.</td>
</tr>
</tbody>
</table>

Indicators/operating means

| 1 | Switching state yellow |
| 2 | Emitter                |
| 3 | Receiver               |
### Technical data

#### General specifications
- Effective detection range: 0 ... 2.5 m
- Reflector distance: 0.02 ... 2.5 m
- Threshold detection range: 2.8 m
- Reference target: H85-2 reflector
- Light source: LED
- Light type: modulated visible red light
- Diameter of the light spot: approx. 180 mm at a distance of 3.5 m
- Angle of divergence: approx. 3°
- Ambient light limit: 40000 Lux

#### Functional safety related parameters
- MTTFd: 2340 a
- Mission Time (T_M): 20 a
- Diagnostic Coverage (DC): 0 %

#### Indicators/operating means
- Function display: LED yellow: switching state

#### Electrical specifications
- Operating voltage: U_B: 10 ... 30 V DC
- Ripple: max. 10 %
- No-load supply current: I_0: < 12 mA
- Switching type: dark on
- Signal output: 1 NPN, short-circuit protected, open collector, not protected from reverse polarity
- Switching voltage: max. 30 V DC
- Switching current: max. 100 mA
- Voltage drop: U_d: ≤ 1.5 V DC
- Response time: 1.8 ms

#### Mechanical specifications
- Protection degree: IP67
- Connection: 2 m fixed cable with connector acc. to DIN 41524, 5-pin
- Housing: PC (glass-fiber-reinforced Makrolon)
- Optical face: PMMA
- Mass: approx. 60 g

#### Compliance with standards and directives

#### Approvals and certificates
- UL approval: cULus Listed, Class 2 Power Source, Type 1 enclosure
- CCC approval: CCC approval / marking not required for products rated ≤ 36 V

### Curves/Diagrams

#### Characteristic response curve

![Characteristic response curve](image)

#### Other suitable accessories can be found at www.pepperl-fuchs.com
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Relative received light strength

Reflector type:
- H85
- C110-2
- H8
- OFR-100/100
- H160

Stability control > 1.5
Stability control < 1.5
Stability control

Distance X [m]

Relative received light strength

Reflector type:
- H85
- C110-2
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Stability control > 1.5
Stability control < 1.5
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