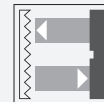


# Retroreflective sensor with polarization filter



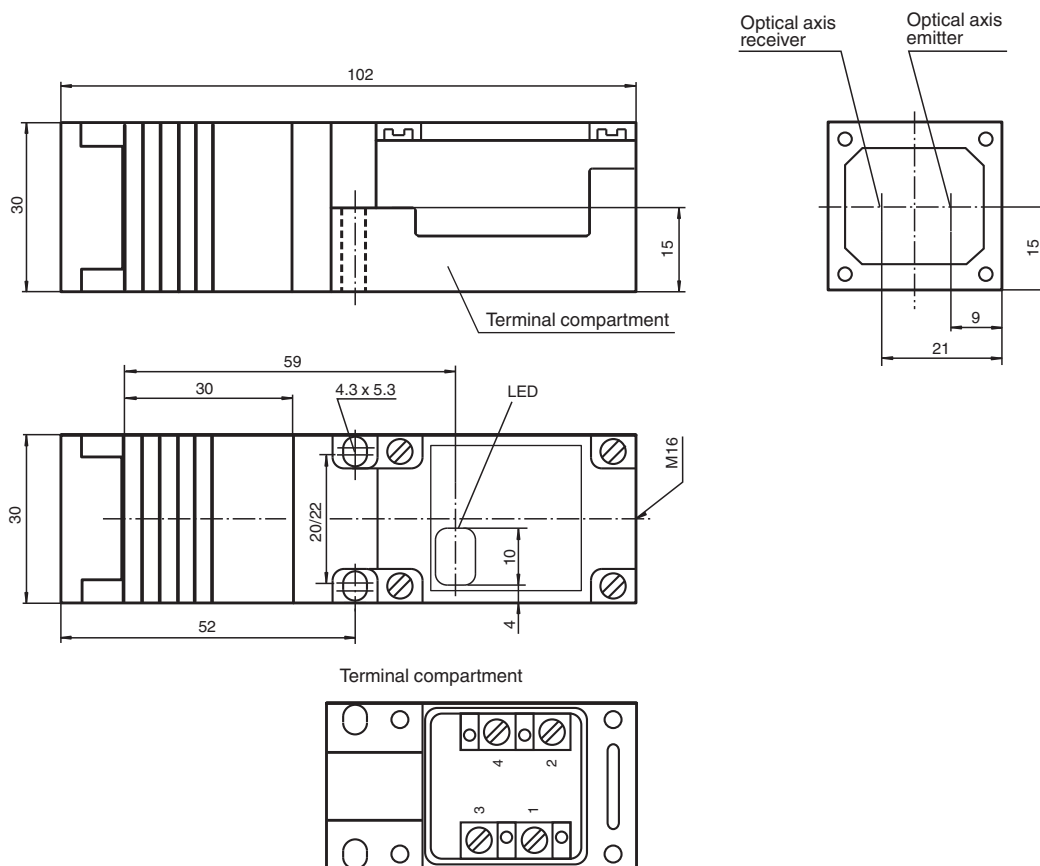
## OJ3000-M1K-E23

- Light-on/dark-on parameterisable
- Visible red light
- Glare protected with polarization filter
- Stability alarm indicator and output (dynamic and static)
- Protected against mutual interference (no cross-talk)
- Removable terminal compartment
- Adjustable sensor head

Retroreflective sensor with polarization filter



## Dimensions



## Technical Data

### General specifications

|                           |                 |
|---------------------------|-----------------|
| Effective detection range | 0 ... 3000 mm   |
| Reflector distance        | 200 ... 3000 mm |
| Threshold detection range | 6 m             |

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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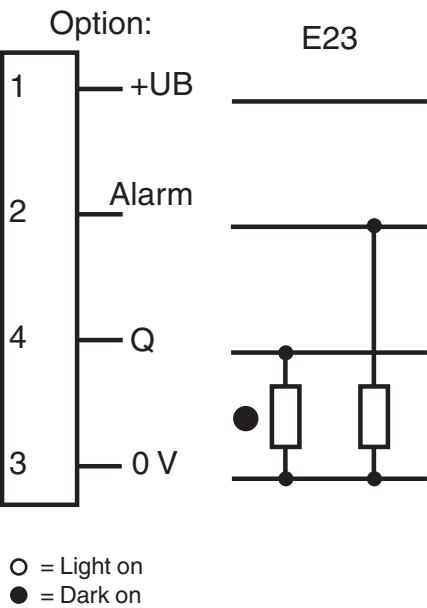
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**PEPPERL+FUCHS**

## Technical Data

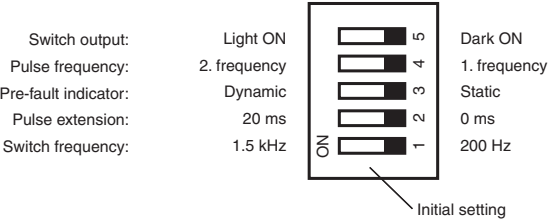
|                                   |       |  |
|-----------------------------------|-------|--|
| Reference target                  |       | reflector C110-2   |
| Light source                      |       | LED  |
| Light type                        |       | modulated visible red light  |
| Polarization filter               |       | yes  |
| Ambient light limit               |       | 10000 Lux  |
| <b>Indicators/operating means</b> |       |  |
| Operation indicator               |       | LED green  |
| Function indicator                |       | LED yellow: switching state<br>LED red: stability control (flashing)   |
| Control elements                  |       | programming switch: bright/dark changeover switch<br>selection of the operating frequency<br>selection of the switching frequency<br>pulse extension<br>stability control dynamic/static |
| <b>Electrical specifications</b>  |       |  |
| Operating voltage                 | $U_B$ | 10 ... 30 V DC   |
| Ripple                            |       | 10 %   |
| No-load supply current            | $I_0$ | ≤ 35 mA  |
| <b>Output</b>                     |       |  |
| Stability alarm output            |       | 1 PNP, active when falling short of the stability control  |
| Switching type                    |       | light/dark on switchable   |
| Signal output                     |       | 1 PNP output, short-circuit protected, reverse polarity protected, open collector  |
| Switching voltage                 |       | max. 30 V DC   |
| Switching current                 |       | ≤ 200 mA   |
| Voltage drop                      | $U_d$ | ≤ 2.5 V  |
| Switching frequency               | $f$   | ≤ 1.5 kHz / 200 Hz switchable  |
| Response time                     |       | 2.5 ms by 200 kHz, 0.3 ms at 1.5 kHz   |
| Timer function                    |       | pulse extension 20 ms, switchable  |
| <b>Conformity</b>                 |       |  |
| Product standard                  |       | EN 60947-5-2   |
| <b>Approvals and certificates</b> |       |  |
| CCC approval                      |       | CCC approval / marking not required for products rated ≤ 36 V  |
| Approvals                         |       | CE   |
| <b>Ambient conditions</b>         |       |  |
| Ambient temperature               |       | -25 ... 70 °C (-13 ... 158 °F)   |
| Storage temperature               |       | -40 ... 80 °C (-40 ... 176 °F)   |
| <b>Mechanical specifications</b>  |       |  |
| Housing width                     |       | 30 mm  |
| Housing height                    |       | 30 mm  |
| Housing depth                     |       | 102 mm   |
| Degree of protection              |       | IP67   |
| Connection                        |       | M16&bspterminal compartment, core cross section ≤ 2.5 mm <sup>2</sup>  |
| Material                          |       |  |
| Housing                           |       | PBT  |
| Optical face                      |       | Scratch resistant mineral glass lens   |
| Mass                              |       | 100 g  |

Connection Assignment

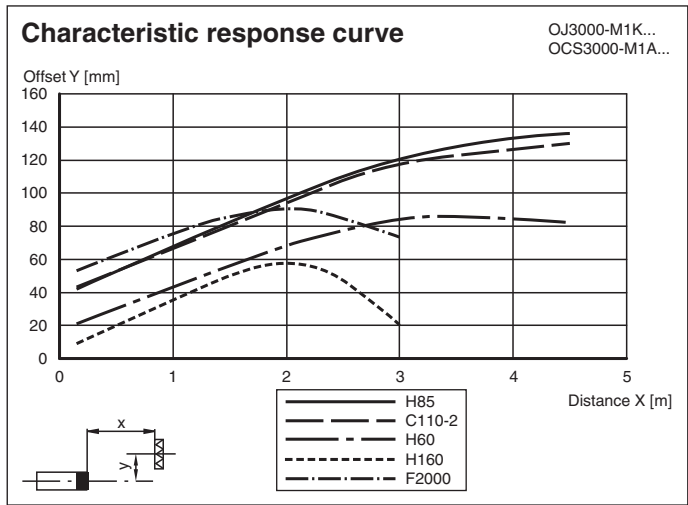


Configuration

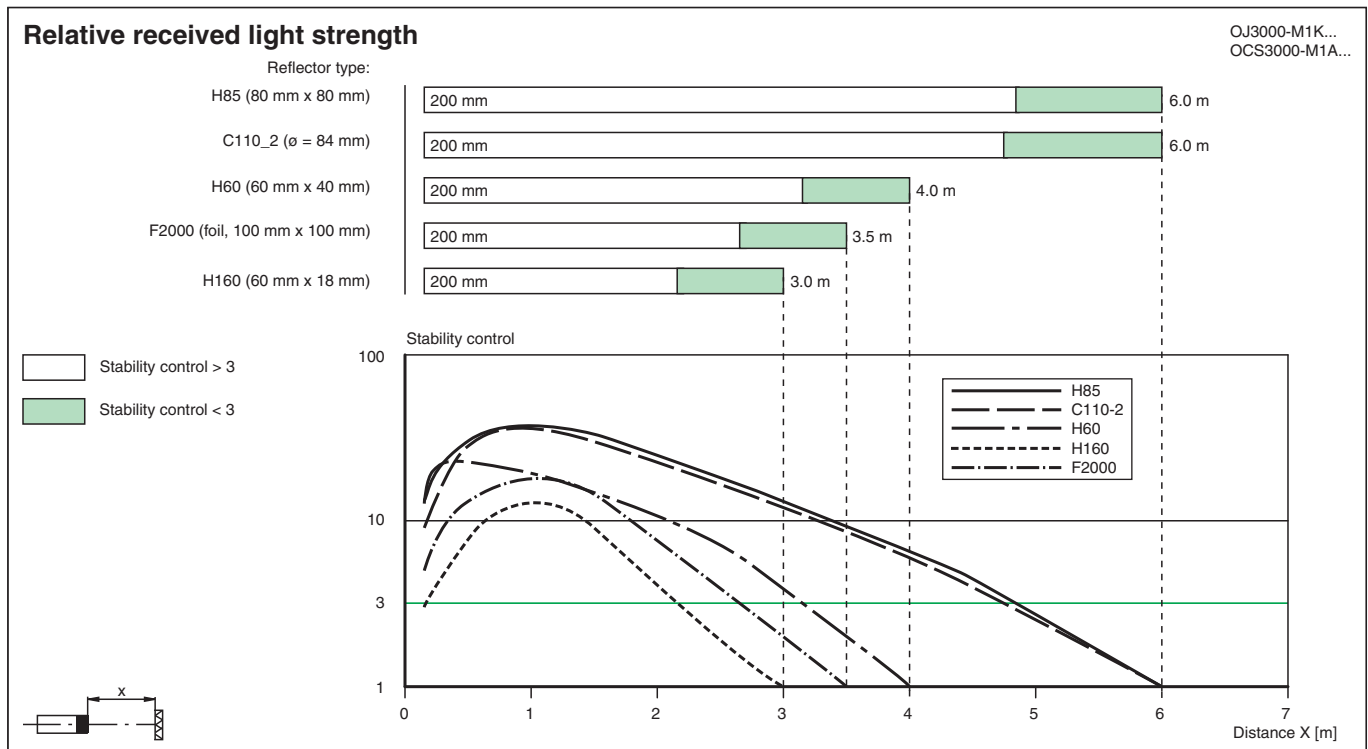
Selector switches in terminal compartment



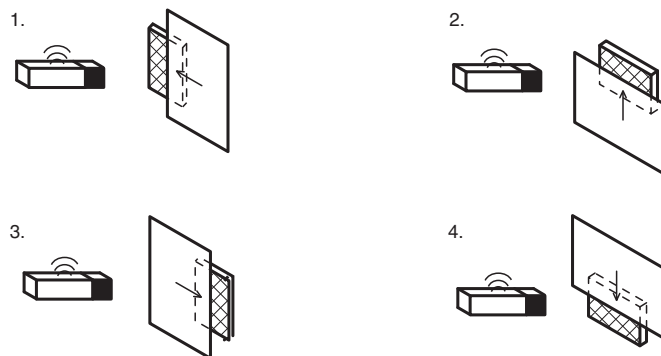
Characteristic Curve



## Characteristic Curve



## Mounting



The reflector is being covered little by little by an object (e. g. piece of paper) until the sensor responds. An optimum sensor adjustment is provided if the engagement factor is the same from all directions when the sensor responds.

## Safety Information

### Safety Instructions:

- Read the operating instructions before commissioning.
- Installation, connection and adjustments should only be undertaken by qualified personnel.
- No safety component according to Machinery Directive 2006/42/EC, may not be used for personal protection or EMERGENCY STOP function.