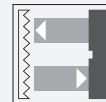




## Retroreflective sensor

ML17-54/73/136

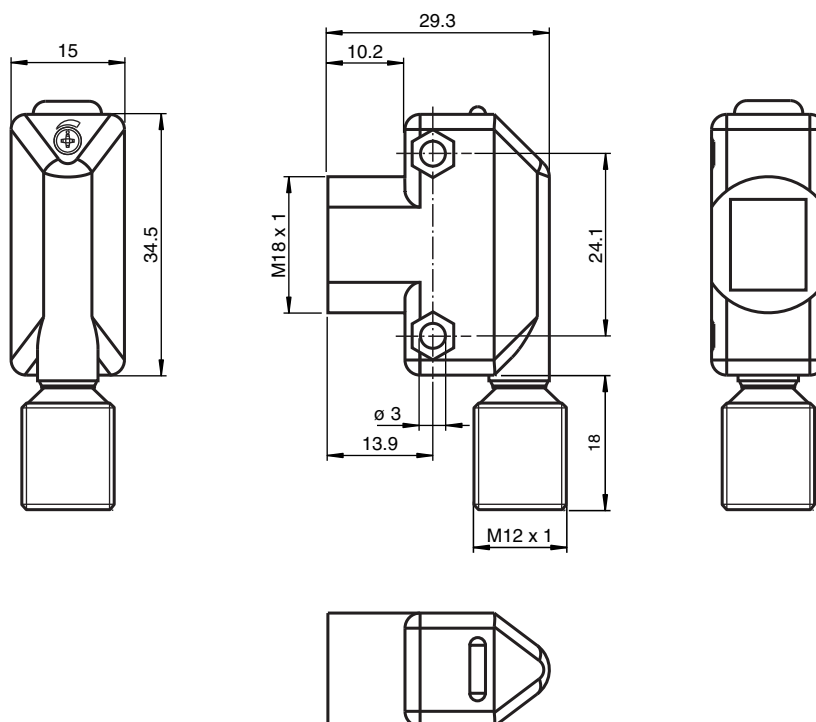


- Compact series in universal housing for standard applications
- Miniature design
- Front mounting with M18-threads or side mounting holes
- 360° high visibility LEDs
- Time-saving mounting with quick clamp system
- Version with polarized filters detect shiny objects
- 4-in-1 output (push-pull)

Retroreflective sensor with polarization filter



### Dimensions



### Technical Data

#### General specifications

|                           |                  |
|---------------------------|------------------|
| Effective detection range | 0 ... 3.5 m      |
| Reflector distance        | 50 ... 3500 mm   |
| Threshold detection range | 5 m              |
| Reference target          | FE-RR1 reflector |

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

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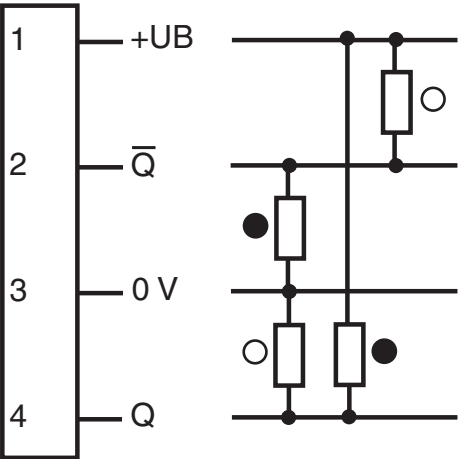
Singapore: +65 6779 9091  
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**PEPPERL+FUCHS**

## Technical Data

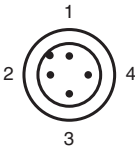
|                                   |                |                                                                                                          |
|-----------------------------------|----------------|----------------------------------------------------------------------------------------------------------|
| Light source                      | LED            |                                                                                                          |
| Light type                        |                | modulated visible red light , 626 nm                                                                     |
| Polarization filter               |                | yes                                                                                                      |
| Ambient light limit               |                | ≤ 10000 Lux                                                                                              |
| <b>Indicators/operating means</b> |                |                                                                                                          |
| Operation indicator               |                | LED green                                                                                                |
| Function indicator                |                | LED yellow, lights up with receiver lit                                                                  |
| Control elements                  |                | sensitivity adjustment                                                                                   |
| <b>Electrical specifications</b>  |                |                                                                                                          |
| Operating voltage                 | U <sub>B</sub> | 10 ... 30 V DC , class 2                                                                                 |
| Ripple                            |                | max. 10 %                                                                                                |
| No-load supply current            | I <sub>0</sub> | < 25 mA                                                                                                  |
| Operating current                 | I <sub>B</sub> | 100 mA max per output                                                                                    |
| Time delay before availability    | t <sub>v</sub> | ≤ 200 ms                                                                                                 |
| <b>Output</b>                     |                |                                                                                                          |
| Switching type                    |                | light/dark on                                                                                            |
| Signal output                     |                | 2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected, overvoltage protected |
| Switching voltage                 |                | max. 30 V DC                                                                                             |
| Switching current                 |                | max. 100 mA                                                                                              |
| Voltage drop                      | U <sub>d</sub> | ≤ 2 V DC                                                                                                 |
| Switching frequency               | f              | 500 Hz                                                                                                   |
| Response time                     |                | ≤ 1 ms                                                                                                   |
| <b>Conformity</b>                 |                |                                                                                                          |
| Product standard                  |                | EN 60947-5-2                                                                                             |
| <b>Approvals and certificates</b> |                |                                                                                                          |
| EAC conformity                    |                | TR CU 020/2011                                                                                           |
| UL approval                       |                | cULus                                                                                                    |
| CCC approval                      |                | CCC approval / marking not required for products rated ≤36 V                                             |
| <b>Ambient conditions</b>         |                |                                                                                                          |
| Ambient temperature               |                | -20 ... 55 °C (-4 ... 131 °F)                                                                            |
| Storage temperature               |                | -20 ... 70 °C (-4 ... 158 °F)                                                                            |
| <b>Mechanical specifications</b>  |                |                                                                                                          |
| Housing width                     |                | 15 mm                                                                                                    |
| Housing height                    |                | 34.5 mm                                                                                                  |
| Degree of protection              |                | IP67                                                                                                     |
| Connection                        |                | 4-pin, M12 x 1 connector                                                                                 |
| <b>Material</b>                   |                |                                                                                                          |
| Housing                           |                | ABS                                                                                                      |
| Optical face                      |                | Acrylic                                                                                                  |
| Mass                              |                | approx. 8.5 g                                                                                            |

Connection



○ = Light on  
● = Dark on

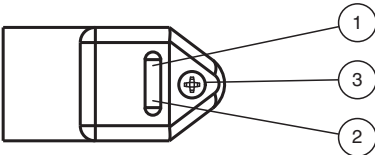
Connection Assignment



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

Assembly

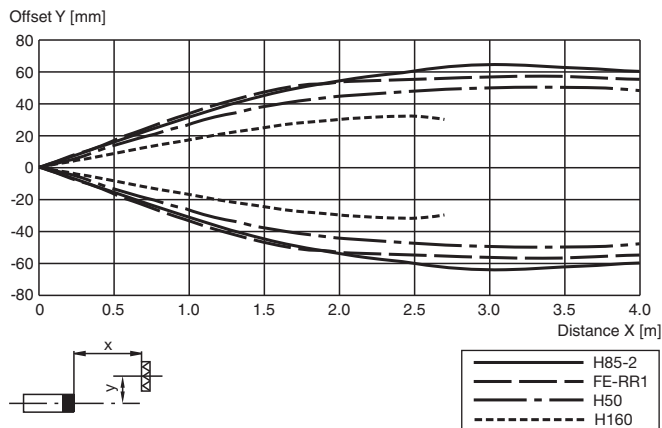


|   |                        |        |
|---|------------------------|--------|
| 1 | Signal display         | yellow |
| 2 | Operating display      | green  |
| 3 | Sensitivity adjustment |        |

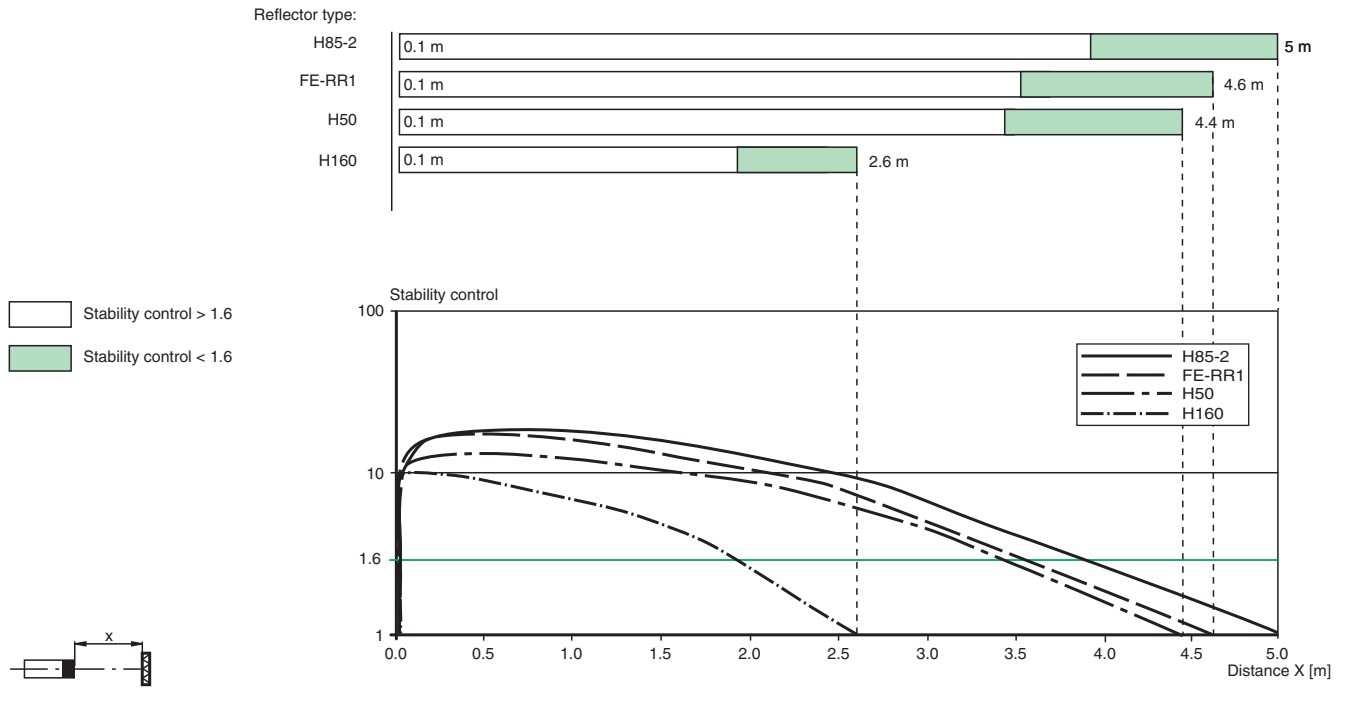
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Characteristic Curve

Characteristic response curve



Relative received light strength



Accessories

|                                                                                     |             |                                                                         |
|-------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------|
|  | OMH-ML17    | Mounting bracket                                                        |
|  | OMH-ML17-1  | Mounting bracket                                                        |
|  | V1-G-2M-PUR | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |
|  | V1-W-2M-PUR | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey   |