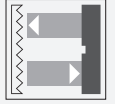




Retroreflective sensor

ML17-54/136/143



- 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

Retroreflective sensor with polarization filter



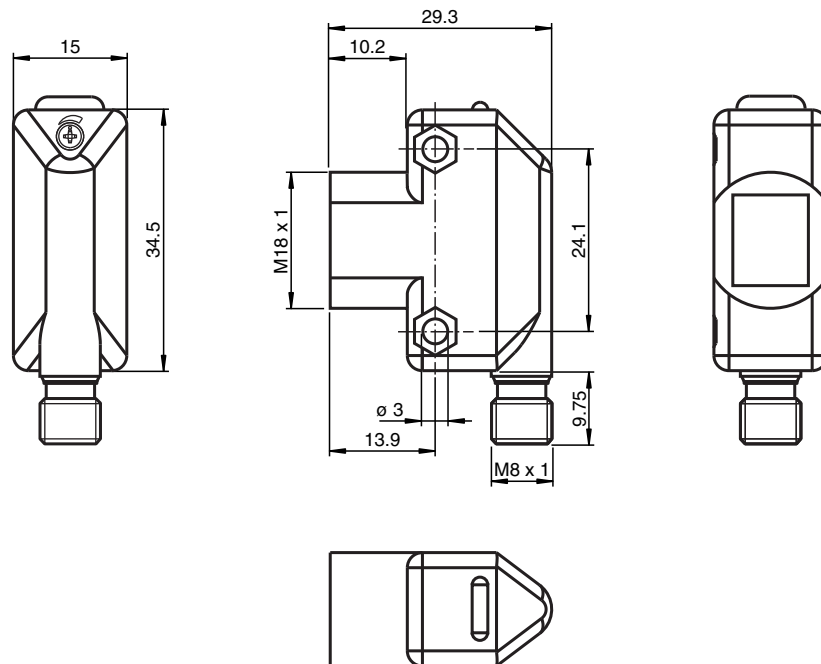
Function

The ML17 sensor family offers diverse connection and installation options, which means that it can adapt to the most varied automation tasks. In addition to the usual fitting method using M4 screws, these sensors can also be installed by means of M18 threaded insert. All devices are equipped with a green Power On display and a yellow function display. These displays are arranged in such a way that they are clearly visible from different directions.

Application

- Presence monitoring
- Target sensors
- Congestion monitoring
- Track loading
- Completeness checks

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 |
| Light source | LED |
| Light type | modulated visible red light , 626 nm |
| Polarization filter | yes |
| Ambient light limit | ≤ 10000 Lux |

Indicators/operating means

| | |
|---------------------|---|
| Operation indicator | LED green |
| Function indicator | LED yellow, lights up with receiver lit |
| Control elements | sensitivity adjustment |

Electrical specifications

| | | |
|--------------------------------|-------|--------------------------|
| Operating voltage | U_B | 10 ... 30 V DC , class 2 |
| Ripple | | max. 10 % |
| No-load supply current | I_0 | < 25 mA |
| Operating current | I_B | 100 mA max per output |
| Time delay before availability | t_v | ≤ 200 ms |

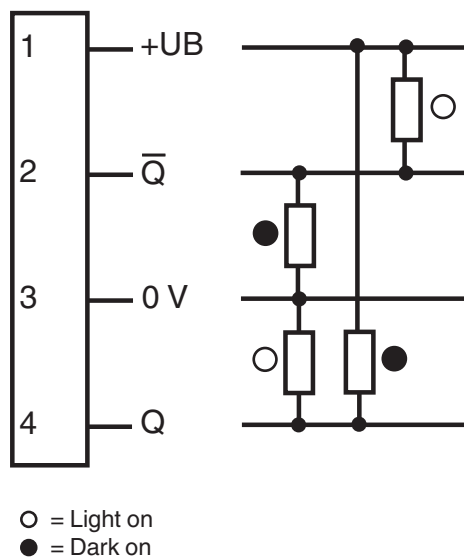
Output

| | |
|-------------------|--|
| 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 |

Technical Data

| | | |
|-----------------------------------|-------|--|
| Voltage drop | U_d | ≤ 2 V DC |
| Switching frequency | f | 500 Hz |
| Response time | | ≤ 1 ms |
| Conformity | | |
| Product standard | | EN 60947-5-2 |
| Approvals and certificates | | |
| EAC conformity | | TR CU 020/2011 |
| UL approval | | cULus |
| CCC approval | | CCC approval / marking not required for products rated ≤ 36 V |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 55 °C (-4 ... 131 °F) |
| Storage temperature | | -20 ... 70 °C (-4 ... 158 °F) |
| Mechanical specifications | | |
| Housing width | | 15 mm |
| Housing height | | 34.5 mm |
| Degree of protection | | IP67 |
| Connection | | M8 x 1 connector, 4-pin |
| Material | | |
| Housing | | ABS |
| Optical face | | Acrylic |
| Mass | | approx. 8.5 g |

Connection



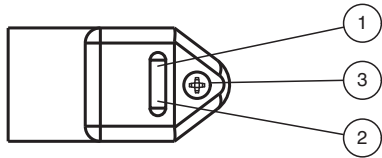
Connection Assignment



Wire colors in accordance with EN 60947-5-2

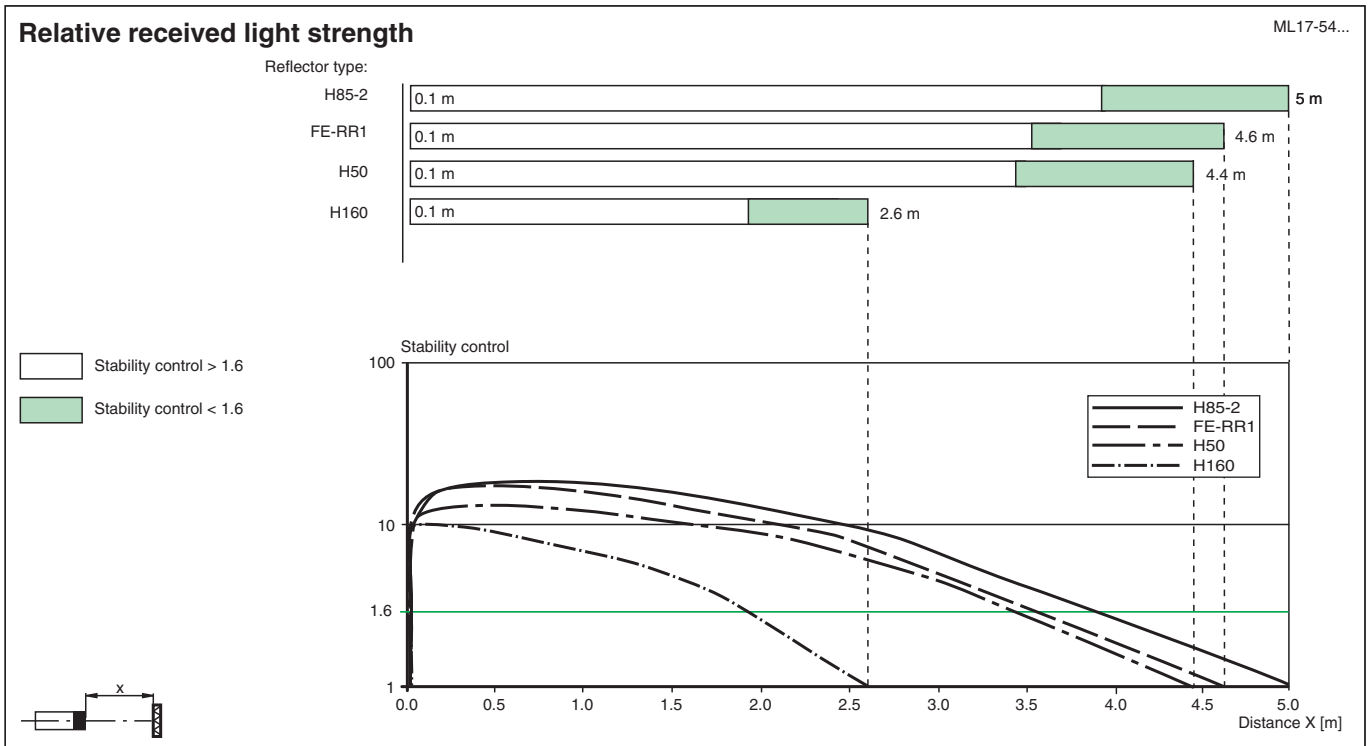
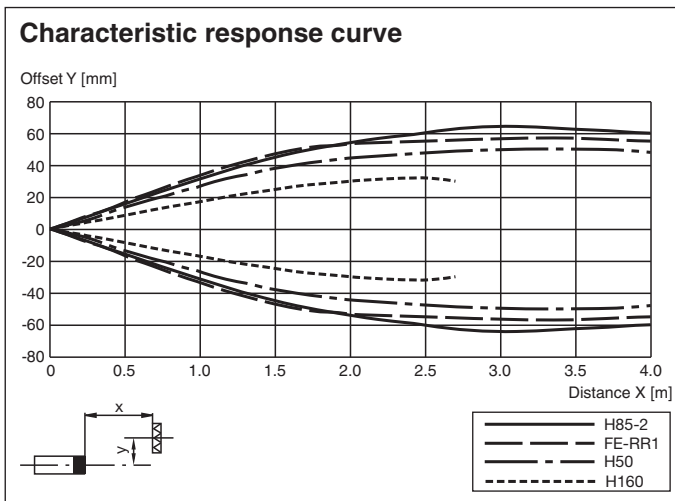
- 1 | BN (brown)
- 2 | WH (white)
- 3 | BU (blue)
- 4 | BK (black)

Assembly



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

Characteristic Curve







Release date: 2022-03-30 Date of issue: 2022-03-30 Filename: 905780_eng.pdf

Application



Accessories

| | | |
|---|----------------------|--|
|  | OMH-ML17 | Mounting bracket |
|  | OMH-ML17-1 | Mounting bracket |
|  | V31-WM-2M-PUR | Female cordset single-ended M8 angled A-coded, 4-pin, PUR cable grey |
|  | V31-GM-2M-PUR | Female cordset single-ended M8 straight A-coded, 4-pin, PUR cable grey |