

Technical Data

| | | |
|---|----------------|--|
| Repetition rate | | approx. 16.6 kHz |
| max. pulse energy | | 9.5 nJ |
| Black-white difference (6 %/90 %) | | < 5 % at 30 mm |
| Diameter of the light spot | | < 1 mm at a distance of 30 mm |
| Opening angle | | approx. 2 ° |
| Optical face | | frontal |
| Ambient light limit | | EN 60947-5-2 : 30000 Lux |
| Functional safety related parameters | | |
| MTTF _d | | 800 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Indicators/operating means | | |
| Operation indicator | | LED green, statically lit Power on , short-circuit : LED green flashing (approx. 4 Hz) |
| Function indicator | | LED yellow: lights when object is detected |
| Electrical specifications | | |
| Operating voltage | U _B | 12 ... 24 V |
| No-load supply current | I ₀ | < 10 mA |
| Protection class | | III |
| Output | | |
| Switching type | | NO contact |
| Signal output | | 1 PNP output, short-circuit protected, reverse polarity protected, open collector |
| Switching voltage | | max. 30 V DC |
| Switching current | | max. 50 mA , resistive load |
| Voltage drop | U _d | ≤ 1.5 V DC |
| Switching frequency | f | approx. 2 kHz |
| Response time | | 250 μs |
| Conformity | | |
| Product standard | | EN 60947-5-2 |
| Laser safety | | EN 60825-1:2007 |
| Approvals and certificates | | |
| EAC conformity | | TR CU 020/2011 |
| UL approval | | E87056 , cULus Recognized, Class 2 Power Source |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| FDA approval | | IEC 60825-1:2007 Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007 |
| Ambient conditions | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature | | -30 ... 70 °C (-22 ... 158 °F) |
| Mechanical specifications | | |
| Housing width | | 7.5 mm |
| Housing height | | 26 mm |
| Housing depth | | 13.8 mm |
| Degree of protection | | IP67 |
| Connection | | 200 mm fixed cable with 3-pin, M8 x 1 connector |
| Material | | |
| Housing | | PC/ABS and TPU |
| Optical face | | glass |
| Cable | | PUR |
| Mass | | approx. 10 g |
| Cable length | | 200 mm |

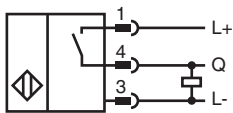
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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PEPPERL+FUCHS

Connection



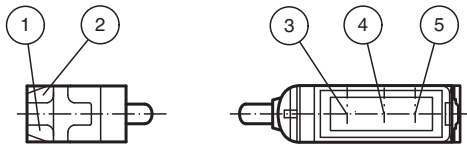
Connection Assignment



Wire colors in accordance with EN 60947-5-2

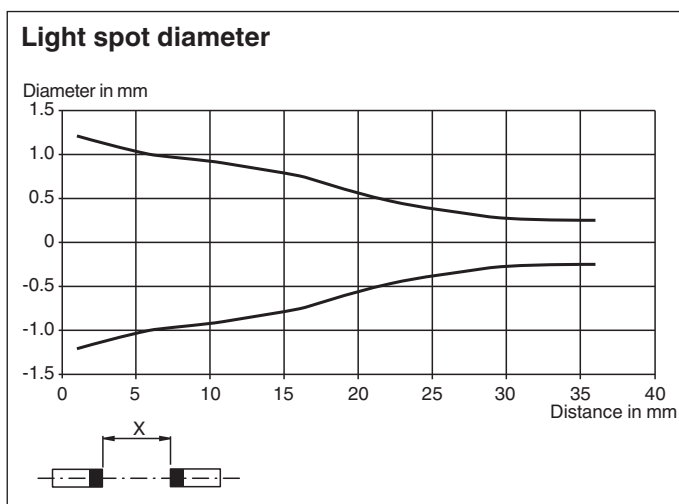
| | | |
|---|----|---------|
| 1 | BN | (brown) |
| 3 | BU | (blue) |
| 4 | BK | (black) |

Assembly



| | | |
|---|-------------------|--------|
| 1 | Operating display | green |
| 2 | Signal display | yellow |
| 3 | Emitter | |
| 4 | Receiver 1 | |
| 5 | Receiver 2 | |

Characteristic Curve



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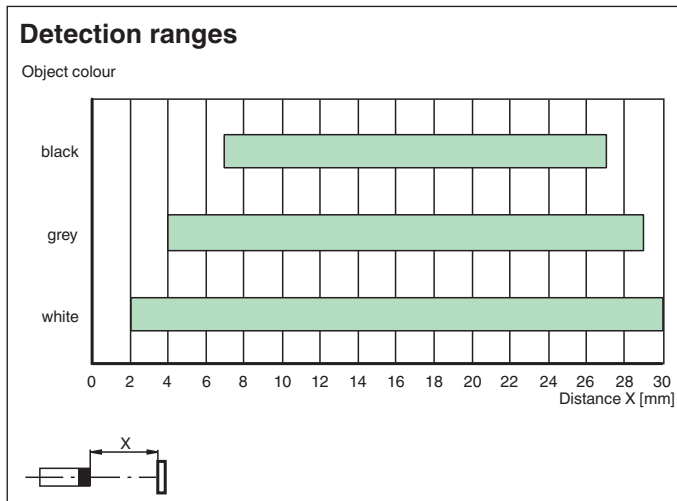
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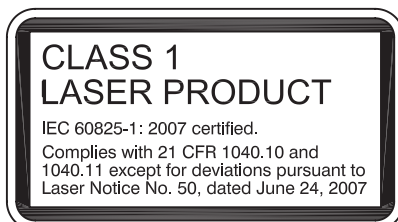
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Characteristic Curve




Safety Information



Accessories

| | | |
|---|---------------------|--|
|  | V3-WM-2M-PUR | Female cordset single-ended M8 angled A-coded, 3-pin, PUR cable grey |
|  | MH-R3-01 | Mounting aid for sensors from the R3 series, mounting bracket |
|  | MH-R3-02 | Mounting aid for sensors from the R3 series, mounting bracket |
|  | MH-R3-03 | Mounting aid for sensors from the R3 series, mounting bracket |

Accessories

| | | |
|---|-----------------|---|
|  | MH-R3-04 | Mounting aid for sensors from the R3 series, mounting bracket |
|---|-----------------|---|