

Thru-beam sensor

ML300-P-6m-RT/25/102/115



- Miniature design
- Easy to use
- Visible red light
- 45° cable connector

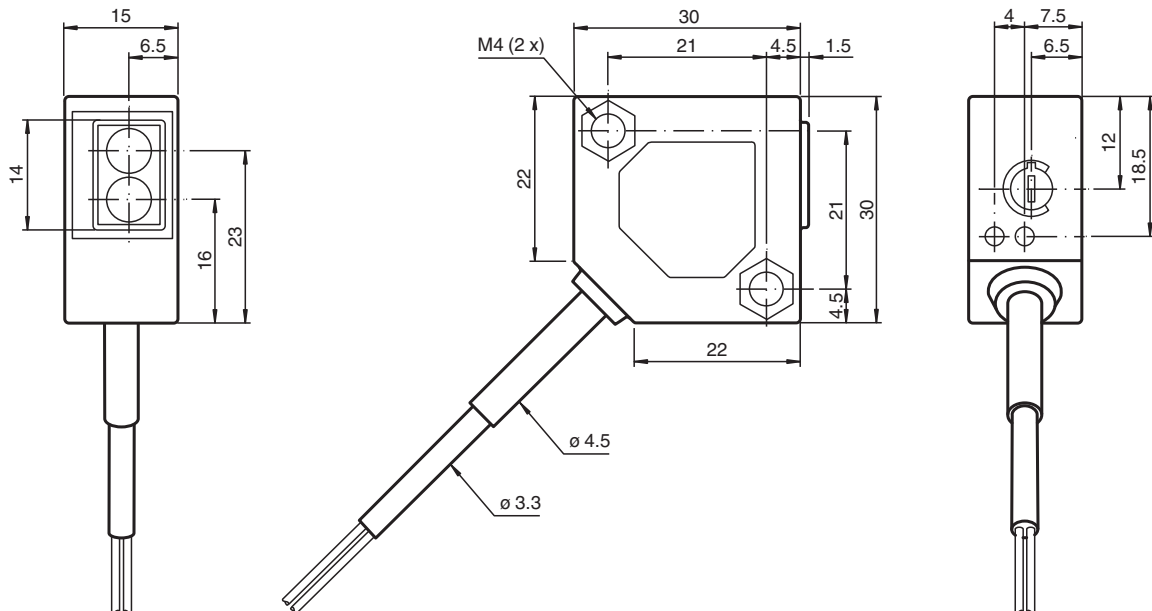
Thru-beam sensor



Function

The ML300 series has a robust miniature housing and all the standard functional principles. Of particular note are the sensors with analog output, which return a value proportional to the distance. The 45° plug/cable connection ensures flexible mounting. An LED indicates a weak signal, e.g. due to dirt.

Dimensions



Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 238492_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

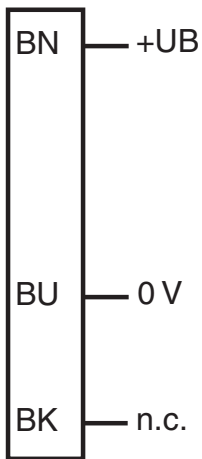
PF PEPPERL+FUCHS

Technical Data

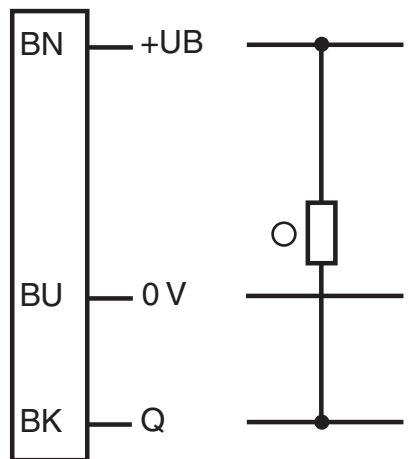
| | | |
|---|-------|--|
| System components | | |
| Emitter | | ML300-T-6m-RT/115 |
| Receiver | | ML300-R-6m-RT/25/102/115 |
| General specifications | | |
| Effective detection range | | 0 ... 6 m |
| Threshold detection range | | 8 m |
| Light source | | LED |
| Light type | | modulated visible red light 660 nm |
| Diameter of the light spot | | approx. 500 mm at 6 m |
| Opening angle | | approx. 5 ° |
| Ambient light limit | | |
| Continuous light | | 10000 Lux |
| Modulated light | | 5000 Lux |
| Indicators/operating means | | |
| Function indicator | | LED yellow: lights up when output is active LED green: Sufficient stability control |
| Control elements | | sensitivity adjustment |
| Electrical specifications | | |
| Operating voltage | U_B | 10 ... 30 V DC |
| Ripple | | max. 10 % |
| No-load supply current | I_0 | Emitter: ≤ 20 mA Receiver: ≤ 20 mA |
| Output | | |
| Switching type | | light-on |
| Signal output | | 1 NPN output, short-circuit protected, reverse polarity protected, open collector |
| Switching voltage | | max. 30 V DC |
| Switching current | | max. 0.1 A |
| Voltage drop | U_d | ≤ 2 V DC |
| Switching frequency | f | 1000 Hz |
| Response time | | 0.5 ms |
| Conformity | | |
| Product standard | | EN 60947-5-2 |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Shock and impact resistance | | EN 60947-5-7 30 g, 11 ms, all axes |
| Vibration resistance | | EN 60947-5-7, 10-55 Hz/1.5 mm amplitude, all axes |
| Approvals and certificates | | |
| UL approval | | no |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 55 °C (-13 ... 131 °F) |
| Mechanical specifications | | |
| Housing width | | 30 mm |
| Housing height | | 30 mm |
| Housing depth | | 15 mm |
| Degree of protection | | IP65 |
| Connection | | 2 m fixed cable |
| Material | | |
| Housing | | ABS |
| Optical face | | plastic |
| Cable | | PVC |
| Mass | | 150 g (emitter and receiver) |

Connection Assignment

Transmitter

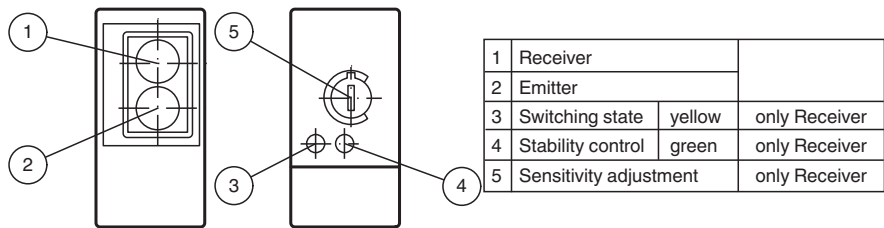


Receiver

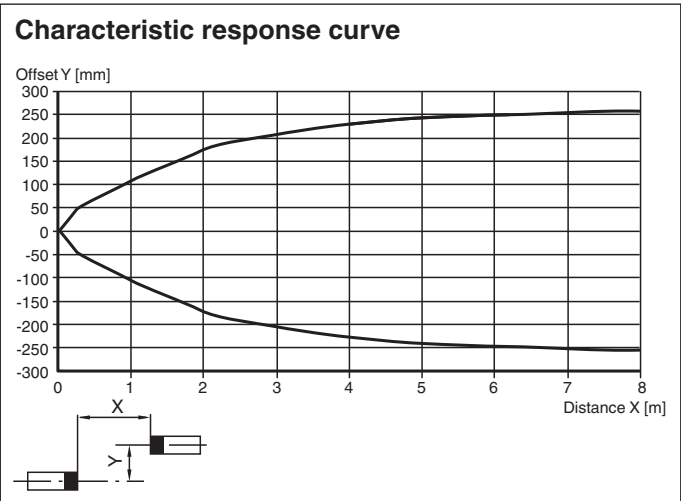


○ = Light on
● = Dark on

Assembly

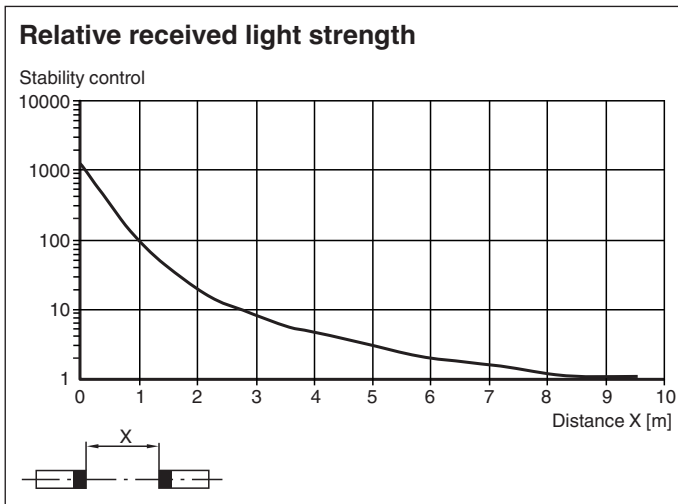


Characteristic Curve




Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 238492_eng.pdf

Characteristic Curve



Accessories

| | | |
|---|----------------------------|--|
|  | <p>OMH-ML300-01</p> | <p>Bracket for mounting ML300 series sensors</p> |
|---|----------------------------|--|

Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 238492_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com