

Diffuse mode sensor

ML300-8-1200-IR/25/115/127



- Miniature design
- Easy to use
- Infrared light
- High operating range
- 45° cable connector

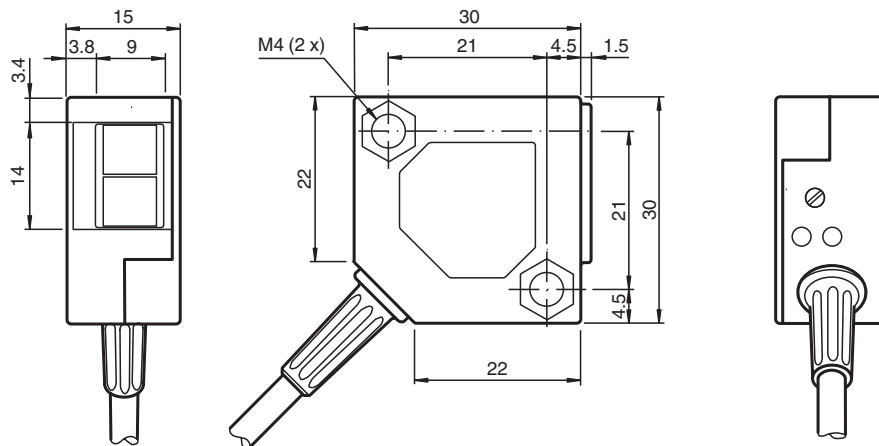
Diffuse mode sensor, miniature design, 1200 mm adjustable detection range, infrared light, light/dark on, 2 NPN outputs, fixed cable



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



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

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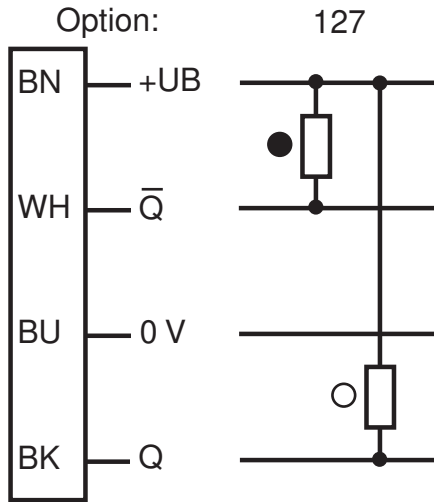
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Technical Data

| General specifications | | |
|---|-------|--|
| Detection range | | 0 ... 1200 mm , adjustable |
| Adjustment range | | 250 ... 1200 mm |
| Reference target | | standard white 200 mm x 200 mm |
| Light source | | IRED |
| Light type | | modulated infrared light , 880 nm |
| Diameter of the light spot | | approx. 160 mm at a distance of 1200 mm |
| Opening angle | | approx. 8 ° |
| Ambient light limit | | |
| Continuous light | | 10000 Lux |
| Modulated light | | 5000 Lux |
| Accessories provided | | Mounting bracket OMH-ML300-01 |
| Indicators/operating means | | |
| Function indicator | | LED yellow: lights up when output is active LED green: Sufficient stability control |
| Control elements | | Sensing range adjuster |
| Electrical specifications | | |
| Operating voltage | U_B | 10 ... 30 V DC |
| Ripple | | max. 20 % |
| No-load supply current | I_0 | max. 20 mA |
| Output | | |
| Switching type | | light on / dark on |
| Signal output | | 2 NPN outputs, complementary, short-circuit proof, reverse-polarity protection, 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 | | |
| 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 | | IP67 |
| Connection | | 2 m fixed cable |
| Material | | |
| Housing | | PBT |
| Optical face | | glass pane |
| Cable | | PVC |
| Mass | | 75 g |

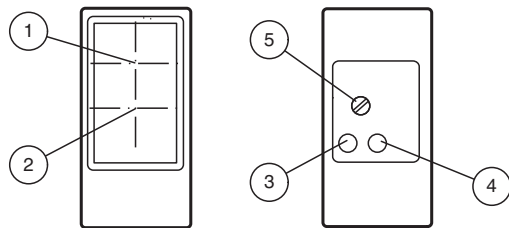
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Connection Assignment



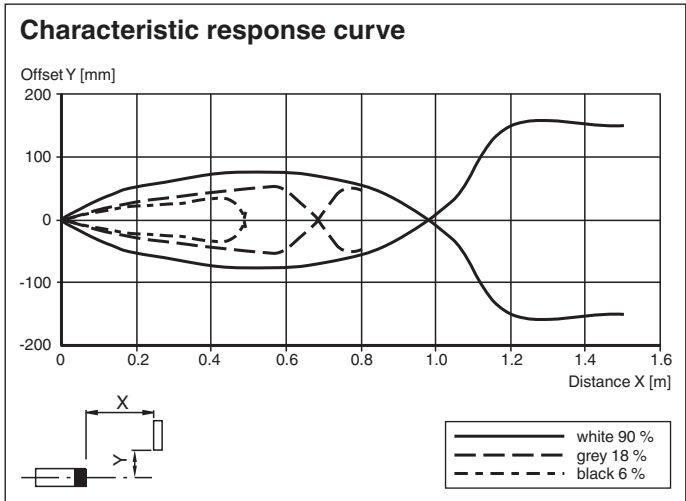
○ = Light on
 ● = Dark on

Assembly



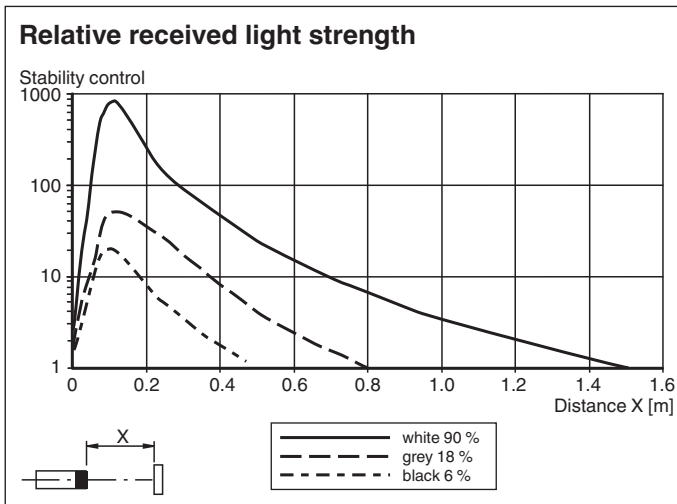
| | | |
|---|------------------------|--------|
| 1 | Receiver | |
| 2 | Emitter | |
| 3 | Switching state | yellow |
| 4 | Stability control | green |
| 5 | Sensing range adjuster | |

Characteristic Curve



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Characteristic Curve



Accessories

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