



Model Number

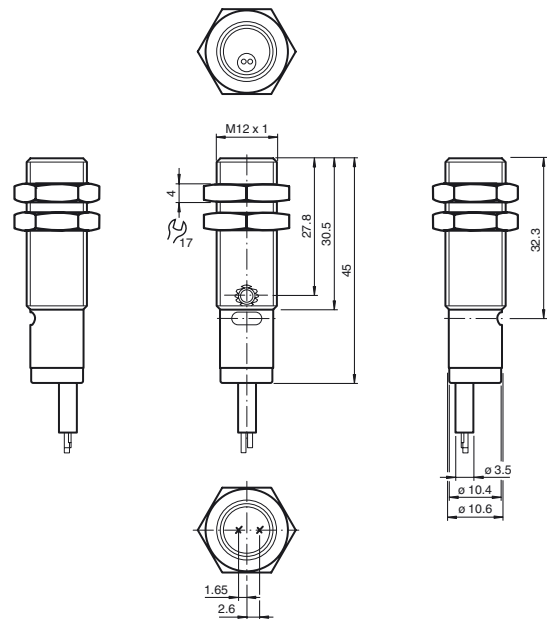
OBE6000-12GM40-SE4-0,1M-V31

Thru-beam sensor
with 100 mm fixed cable and M12 connector,
4-pin

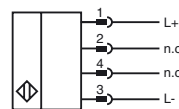
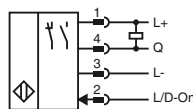
Features

- Robust M12 threaded housing
- Less space required
- Light/dark ON, programmable
- Degree of protection IP67

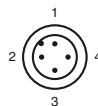
Dimensions



Electrical connection



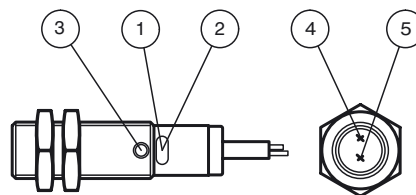
Pinout



Wire colors in accordance with EN 60947-5-2

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

Indicators/operating means



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

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

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Technical data**System components**

| | |
|----------|----------------------------|
| Emitter | OBE6000-12GM40-S-0,1M-V31 |
| Receiver | OBE6000-12GM40-E4-0,1M-V31 |

General specifications

| | |
|----------------------------|---|
| Effective detection range | 0 ... 6000 mm |
| Threshold detection range | 8500 mm |
| Adjustment range | 500 ... 8500 mm |
| Reference target | receiver |
| Light source | LED |
| Light type | red , 640 nm |
| Angle deviation | +/- 2 ° |
| Diameter of the light spot | approx. 800 mm at a distance of 6 m Red light |
| Angle of divergence | approx. 4 |
| Optical face | frontal |
| Ambient light limit | EN 60947-5-2 ; 20000 Lux |

Functional safety related parameters

| | |
|--------------------------------|-------|
| MTTF _d | 806 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Indicators/operating means

| | |
|---------------------|---|
| Operation indicator | LED green: Power on |
| Function indicator | LED yellow: lights up when receiving the light beam ; flashes when falling short of the stability control; OFF when light beam is interrupted |
| Control elements | sensitivity adjustment , receiver |

Electrical specifications

| | | |
|------------------------|----------------|--------------------------------|
| Operating voltage | U _B | 10 ... 30 V DC , class 2 |
| Ripple | | 10 % |
| No-load supply current | I ₀ | ≤ 30 mA (emitter and receiver) |

Input

| | |
|---------------|------------------------------|
| Control input | light on +UB dark on: 0 V |
|---------------|------------------------------|

Output

| | | |
|---------------------|---|-----------|
| Switching type | light/dark on electrically switchable | |
| Signal output | 1 NPN output, short-circuit protected, reverse polarity protected, open collector | |
| Switching voltage | max. 30 V DC | |
| Switching current | max. 100 mA | |
| Voltage drop | U _d | ≤ 2 V |
| Switching frequency | f | ≤ 1000 Hz |
| Response time | | 0.5 ms |

Conformity

| | |
|------------------|--------------|
| Product standard | EN 60947-5-2 |
|------------------|--------------|

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -30 ... 60 °C (-22 ... 140 °F) |
| Storage temperature | -40 ... 70 °C (-40 ... 158 °F) |

Mechanical specifications

| | |
|----------------------|---|
| Degree of protection | IP67 |
| Connection | 100 mm fixed cable with M8 connector, 4-pin |
| Material | |
| Housing | brass, nickel-plated |
| Optical face | PMMA |
| Mass | approx. 25 g (device) |
| Cable length | 100 mm |

Compliance with standards and directives

| | |
|---------------------|--------|
| Standard conformity | |
| Standards | UL 508 |

Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus Listed, Class 2 Power Source, Type 1 enclosure |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |
| Approvals | CE, cULus Listed 57M3 (Only in association with UL Class 2 power supply; Type 1 enclosure) |

Accessories**BF 12**

Mounting flange, 12 mm

BF 12-F

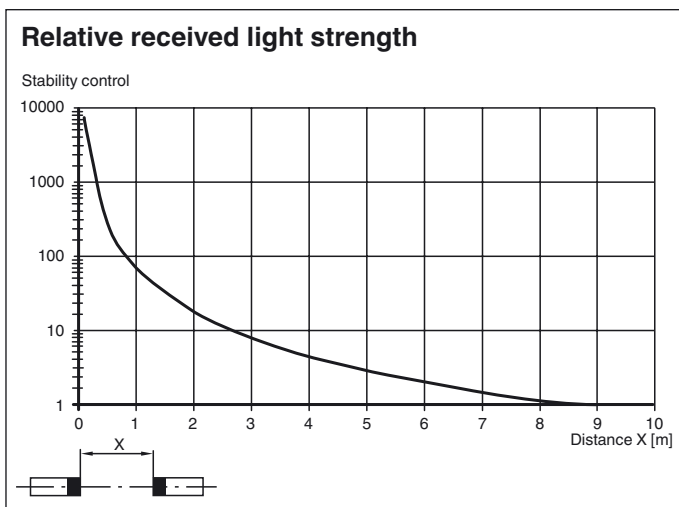
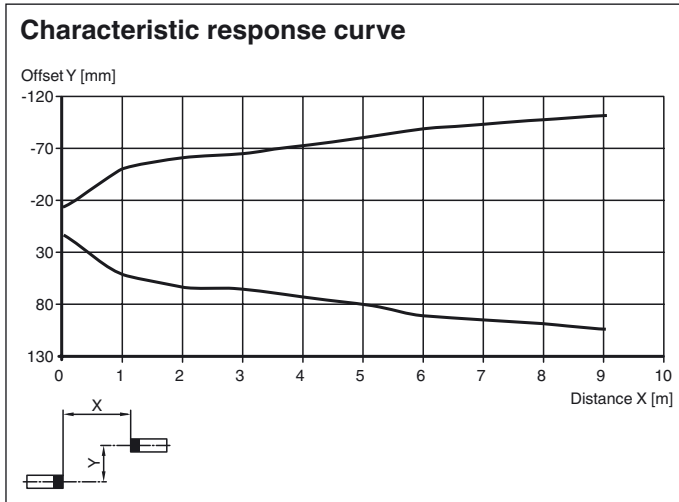
Plastic mounting adapter, 12 mm

BF 5-30

Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm

Other suitable accessories can be found at www.pepperl-fuchs.com

Curves/Diagrams



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