



Model Number

GLV18-55-G/59/102/159

Retroreflective sensor with 3-pin, M12 x 1 plastic connector

Features

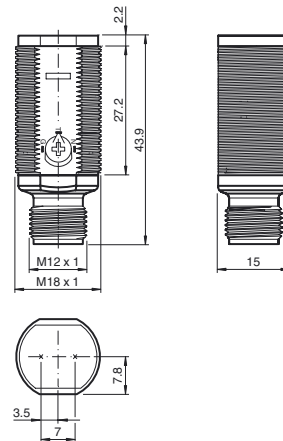
- Efficient Line in a short M18 plastic housing for standard applications
- Two devices in one: choice of either clear object detection or retroreflective operating mode with a large detection range
- 4 LEDs indicator for 360° visibility
- Optimized potentiometer design for a clear control button layout in the application
- DC voltage version

Product information

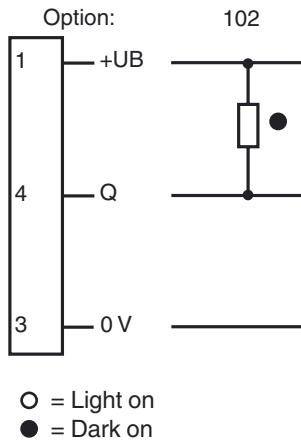
The GLV/GLK18 series sensors help improve the efficiency of machines and systems. The design of the M18 plastic housing, the connection technology, and sensor properties are highly standardized. Concentrating on the key sensor requirements has produced a robust and reliable product series for DC and AC/DC voltage systems without any over-engineering. The mounting set included in the scope of delivery and the optimized potentiometer design ensure fast assembly and easy configuration.

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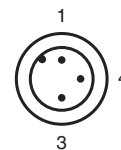
Dimensions



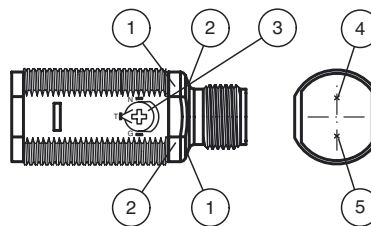
Electrical connection



Pinout



Indicators/operating means



| | | |
|---|-------------------------------------------|---------------|
| 1 | Operating display | green |
| 2 | Signal display | yellow |
| 3 | Potentiometer Teach-In and Mode selection | |
| | N | Normal mode |
| | T | Teach-In Mode |
| | G | Glau mode |
| 4 | Emitter | |
| 5 | Receiver | |

Technical data**General specifications**

| | |
|----------------------------|--------------------------------------------------------|
| Effective detection range | 0 ... 2.5 m in glass mode; 0 ... 5 m in normal mode |
| Reflector distance | 0 ... 2.5 m in glass mode; 0 ... 5 m in normal mode |
| Threshold detection range | 6.5 m |
| Reference target | reflector C110-2 |
| Light source | LED |
| Light type | modulated visible red light , 640 nm |
| Diameter of the light spot | approx. 370 mm at 6.5 m ; 50 mm at 1 m |
| Angle of divergence | approx. 2 ° |
| Optical face | frontal |
| Ambient light limit | 30000 Lux |

Functional safety related parameters

| | |
|--------------------------------|--------|
| MTTF _d | 1260 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Indicators/operating means

| | |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating display | LED green, statically lit Power on, blinking with 2 Hz or 4 Hz in Teach-In mode |
| Function display | LED yellow: In retro-reflective mode: Lights up when light beam is free; flashing if signal is short of function reserve, off when light beam is interrupted In glass-mode: Lights up when light beam is free; flashing if further compensation is impossible; off when light beam is interrupted |
| Controls | potentiometer for Teach-In and Mode selection |
| Contrast detection levels | 18 % - clear glass bottles |

Electrical specifications

| | | |
|------------------------|----------------|----------------|
| Operating voltage | U _B | 10 ... 30 V DC |
| No-load supply current | I ₀ | < 15 mA |

Output

| | | |
|---------------------|-----------------------------------------------|------------|
| Switching type | dark on | |
| Signal output | 1 NPN, short-circuit protected open collector | |
| Switching voltage | max. 30 V DC | |
| Switching current | max. 100 mA | |
| Voltage drop | U _d | ≤ 1.5 V DC |
| Switching frequency | f | 1 kHz |
| Response time | | ≤ 0.5 ms |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 60 °C (-13 ... 140 °F) |
| Storage temperature | -40 ... 70 °C (-40 ... 158 °F) |

Mechanical specifications

| | |
|-------------------|--------------------------|
| Protection degree | IP67 |
| Connection | Connector M12 x 1, 3-pin |
| Material | |
| Housing | PC |
| Optical face | PMMA |
| Connector | plastic |
| Mass | approx. 10 g |

Compliance with standards and directives

| | |
|---------------------|-----------------------------------------|
| Standard conformity | |
| Product standard | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|------------------|-----------------------------------------------------------------------------------------------------------------------|
| Protection class | II, rated insulation voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 |
| UL approval | cULus Listed, Class 2 Power Source |
| CCC approval | Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval. |

Accessories**CPZ18B03**

Mounting Bracket with swivel nut

BF 18

Mounting flange, 18 mm

BF 18-F

Mounting flange with dead stop, 18 mm

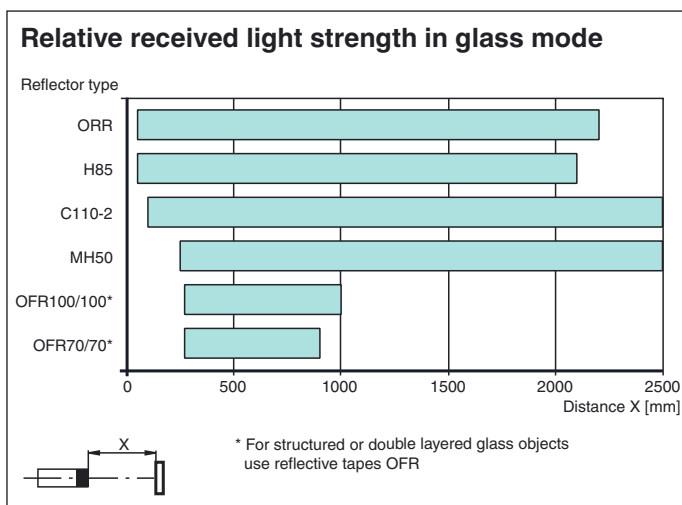
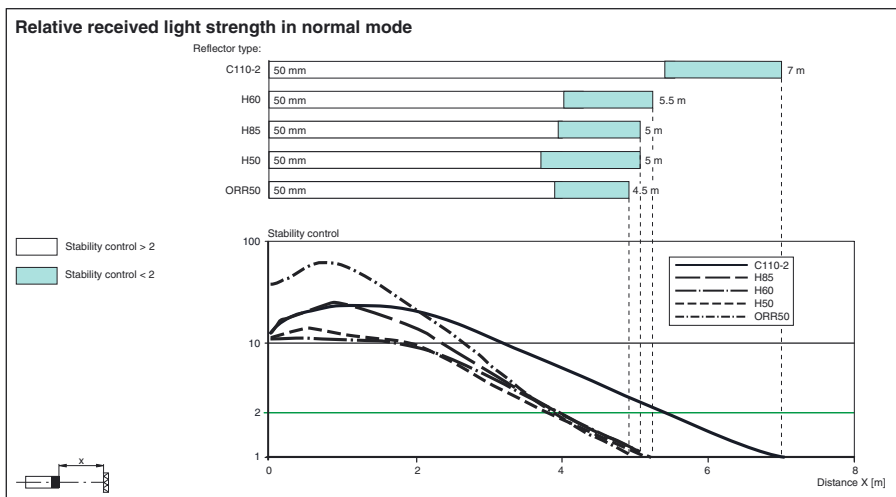
BF 5-30Universal mounting bracket for cylindrical
sensors with a diameter of 5 ... 30 mm**REF-C110-2**Reflector, round ø 84 mm, central moun-
ting hole**REF-H60**Reflector, rectangular 40.5 mm x 60 mm,
mounting holes**REF-H85**Reflector, rectangular 84.5 mm x
84.5 mm, mounting holes**REF-H50**Reflector, rectangular 51 mm x 51 mm,
mounting holes, fixing strap**ORR50**Reflector, rectangular 50.9 mm x 50.9
mm, mounting holes, fixing strap**V11-G-2M-PUR**

Cable socket, M12, 3-pin, PUR cable

V11-W-2M-PUR

Cable socket, M12, 3-pin, PUR cable

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



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