



Model Number

GD18/GV18/25/103/159

Thru-beam sensor
with 3-pin, M12 x 1 plastic connector

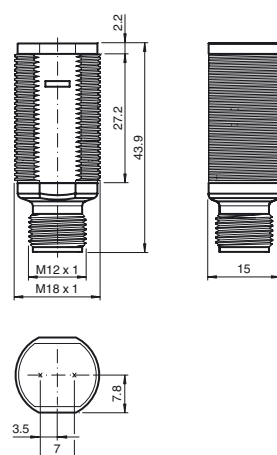
Features

- Efficient Line in a short M18 plastic housing for standard applications
- Very high detection range
- 4 LEDs indicator for 360° visibility
- Version with front optical face
- DC voltage version

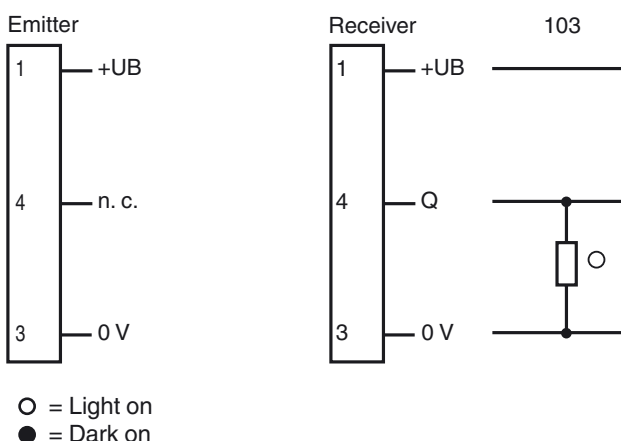
Product information

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.

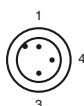
Dimensions



Electrical connection



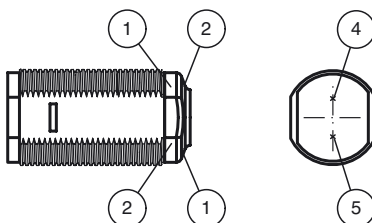
Pinout



Wire colors in accordance with EN 60947-5-2

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

Indicators/operating means



1	Operating display	green
2	Signal display	yellow
4	Emitter	
5	Receiver	

Technical data**System components**

Emitter	GD18/159
Receiver	GV18/25/103/159

General specifications

Effective detection range	0 ... 20 m
Threshold detection range	25 m
Light source	LED
Light type	modulated visible red light , 640 nm
Diameter of the light spot	approx. 1300 mm at 25 m
Angle of divergence	approx. 3 °
Optical face	frontal
Ambient light limit	30000 Lux

Functional safety related parameters

MTTF _d	630 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operation indicator	LED green, statically lit Power on
Function indicator	Receiver: LED yellow, lights up when light beam is free, flashes when falling short of the stability control ; OFF when light beam is interrupted

Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
No-load supply current	I ₀	< 20 mA

Output

Switching type	light on	
Signal output	1 PNP, 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	500 Hz
Response time	≤ 1 ms	

Conformity

Product standard	EN 60947-5-2
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Ambient conditions

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

Mechanical specifications

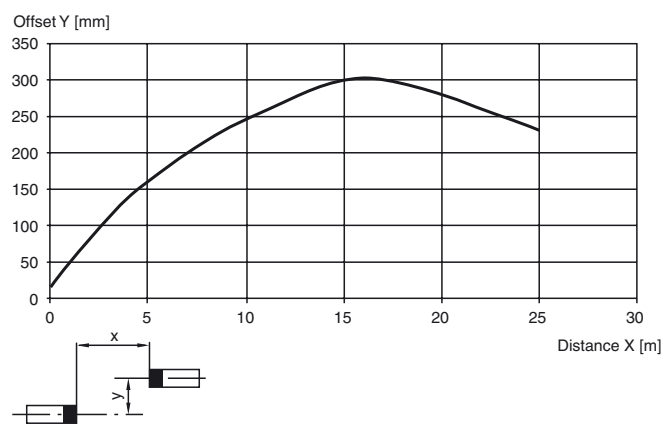
Degree of protection	IP67
Connection	3-pin, M12 x 1 connector
Material	
Housing	PC
Optical face	PMMA
Connector	plastic
Mass	approx. 10 g per device

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, Type 1 enclosure
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Curves/Diagrams**Characteristic response curve**

GD18/GV18...

**Accessories****CPZ18B03**

Mounting Bracket with swivel nut

BF 18

Mounting flange, 18 mm

BF 18-F

Plastic mounting adapter, 18 mm

BF 5-30

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

V11-G-2M-PUR

Female cordset, M12, 3-pin, PUR cable

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

