Model Number

GD18/GV18/59/102/115

Thru-beam sensor
with 2 m fixed cable

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

Emitter

BN	+UB
BU	0 V

Receiver   102

BN	+UB
BU	0 V
BK	Q
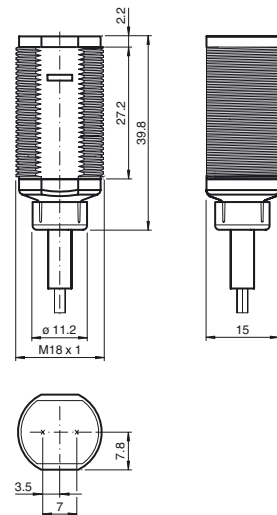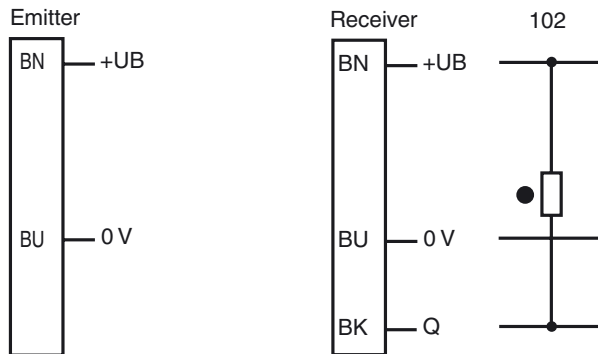
○ = Light on
● = Dark on

Indicators/operating means
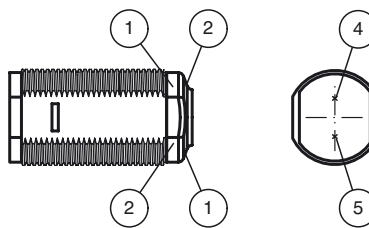
1	Operating display	green
2	Signal display	yellow
4	Emitter	
5	Receiver	

PEPPERL+FUCHS   **1**

Technical data

System components

Emitter	GD18/115
Receiver	GV18/59/102/115

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		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	500 Hz
Response time		≤ 1 ms

Conformity

|	
Product standard	EN 60947-5-2

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	2 m fixed cable
Material	
Housing	PC
Optical face	PMMA
Mass	approx. 75 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
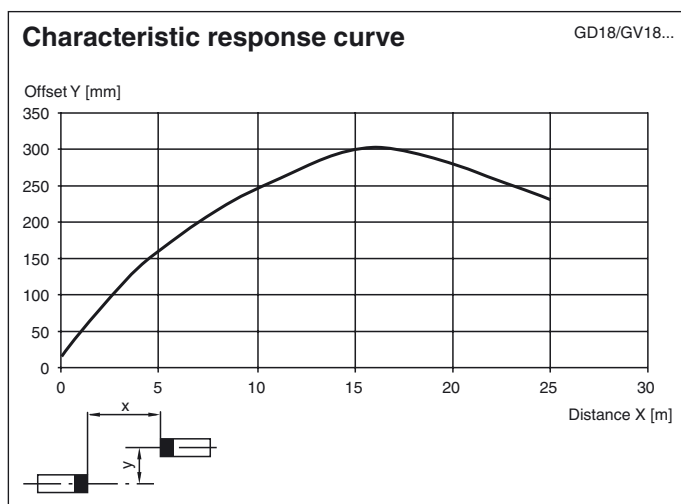
Accessories

CPZ18B03
Mounting Bracket with swivel nut
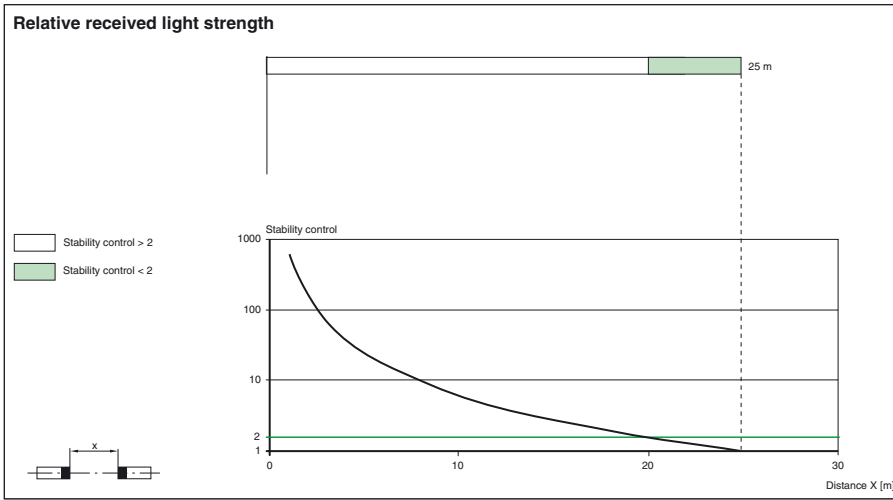
BF 18
Mounting flange, 18 mm

BF 18-F
Plastic mounting adapter, 18 mm

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

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

Curves/Diagrams

Characteristic response curve

GD18/GV18...

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

PEPPERL+FUCHS

Relative received light strength

25 m

Stability control > 2

Stability control < 2

Stability control

1000

100

10

2
1

0   10   20   30

Distance X [m]

x

PEPPERL+FUCHS   **3**