

Model Number

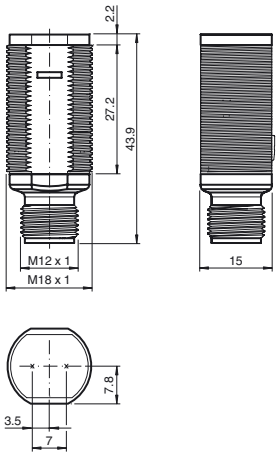
GD18/GV18/73/120

Thru-beam sensor
with 4-pin, M12 x 1 plastic connector

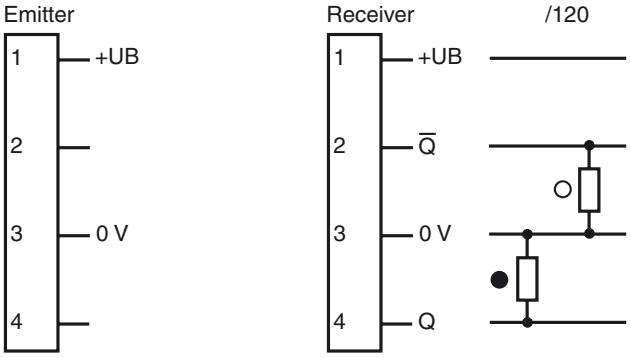
Features

- Short design in M18 plastic housing
- 4 LEDs indicator for 360° visibility
- Optimal price/power ratio

Dimensions

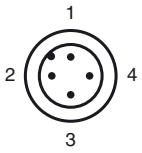


Electrical connection



○ = Light on
● = Dark on

Pinout



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Technical data

System components		
Emitter		GD18/159
Receiver		GV18/73/120
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		
Operating display		LED green, statically lit Power on
Function display		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/dark on
Signal output		2 PNP, complementary, short-circuit protected, open collectors
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
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, 4-pin
Material		
Housing		PC
Optical face		PMMA
Mass		approx. 10 g per device
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, Type 1 enclosure
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
For Series CP18 Threaded Photoelectric Sensors

BF 18
Mounting flange, 18 mm

BF 18-F
Mounting flange with dead stop, 18 mm

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

V1-G-2M-PUR
Cable socket, M12, 4-pin, PUR cable

V1-W-2M-PUR
Cable socket, M12, 4-pin, PUR cable

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

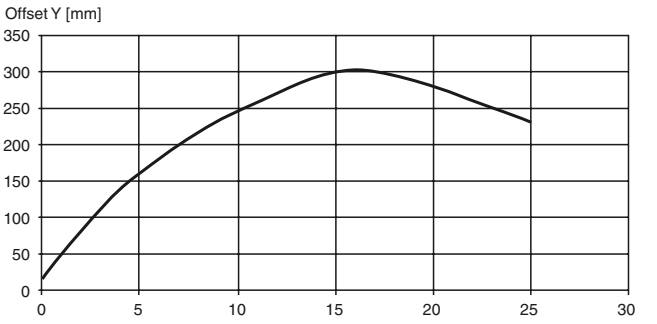
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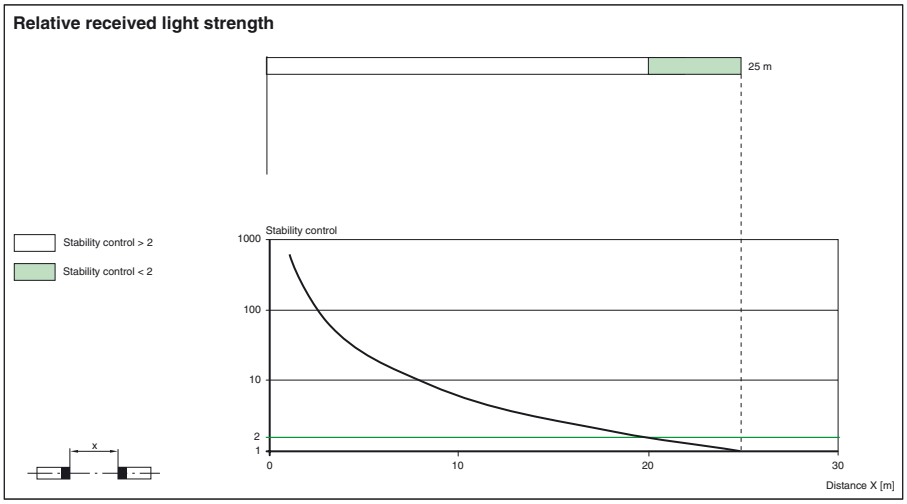
Curves/Diagrams

Characteristic response curve

GD18/GV18...



Relative received light strength



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