



Thru-beam sensor GA18/GK18/59/115/161



- 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
- Universal usage at different power supplies

Thru-beam sensor, M18 threaded housing design, plastic housing, front optical face, 20 m detection range, red light, dark on, AC/DC version, NPN-FET output, fixed cable



Function

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.

Application

Packaging industry:

- Presence checks, track loading, completeness checks, stack height control

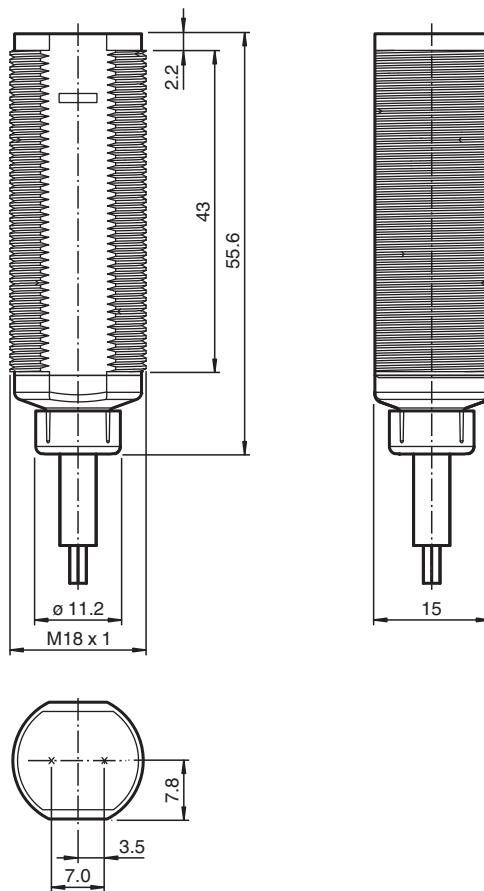
Material handling:

- Presence checks, target sensor, profile checks, trigger sensor

Automatic doors, gates and access systems, elevator:

- Secure detection for automatic door and gate systems
- Monitoring function in turnstiles
- Closing edge monitoring in elevators

Dimensions



Technical Data

Release date: 2022-11-18 Date of issue: 2022-11-18 Filename: 199777_eng.pdf

System components		
Emitter	GA18/115	
Receiver	GK18/59/115/161	
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. 1000 mm at 25 m	
Opening angle	approx. 3 °	
Optical face	frontal	
Ambient light limit	30000 Lux	
Accessories provided	Mounting aids	
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 operating reserve ; OFF when light beam is interrupted	
Electrical specifications		
Operating voltage	U_B	20 ... 250 V AC/DC
No-load supply current	I_0	< 2.5 mA per device
Output		
Switching type	dark-on	

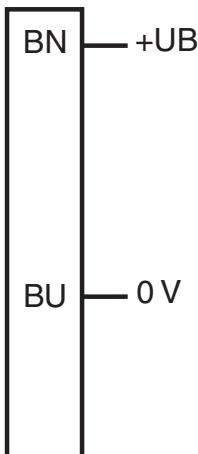
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Technical Data

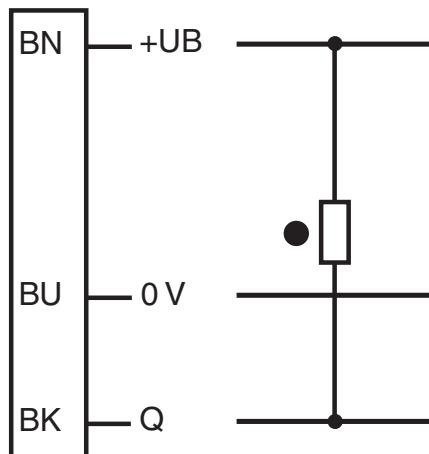
Signal output	N-channel MOSFET, short circuit protected	
Switching voltage	max. 250 V AC/DC	
Switching current	max. 200 mA	
Voltage drop	U_d	≤ 3.5 V AC/DC
Switching frequency	f 50 Hz	
Response time	≤ 10 ms	
Conformity		
Product standard	EN 60947-5-2	
Compliance with standards and directives		
Standard conformity		
Standards	UL 508	
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, Type 1 enclosure For overcurrent protection, install a fuse with a rated current of max. 3 A 250 V AC/DC	
CCC approval	Certified by China Compulsory Certification (CCC)	
Ambient conditions		
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)	
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)	
Mechanical specifications		
Degree of protection	IP67	
Connection	2 m fixed cable	
Material		
Housing	ABS / PBT	
Optical face	PMMA	
Mass	approx. 80 g per device	

Connection Assignment

Emitter

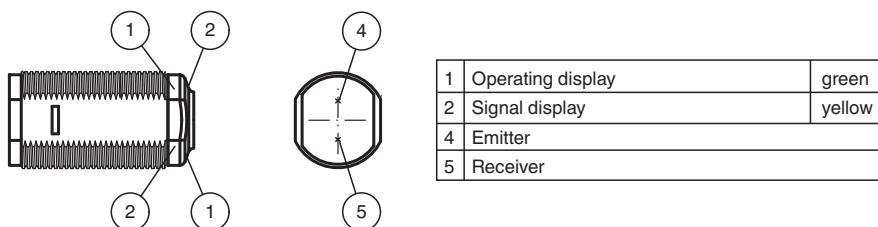


Receiver

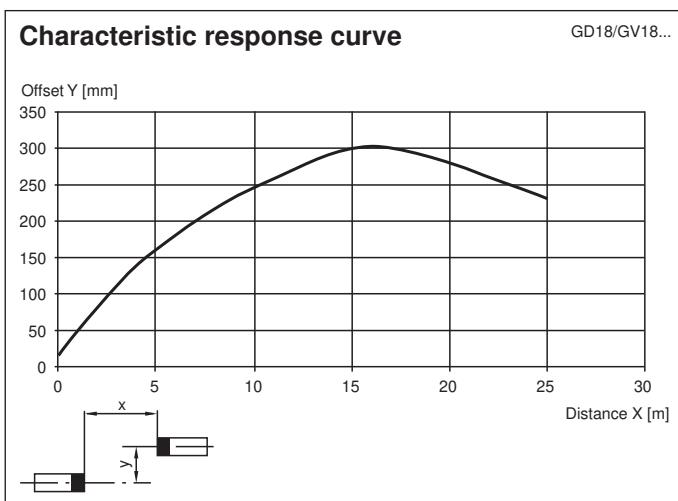


○ = Light on
● = Dark on

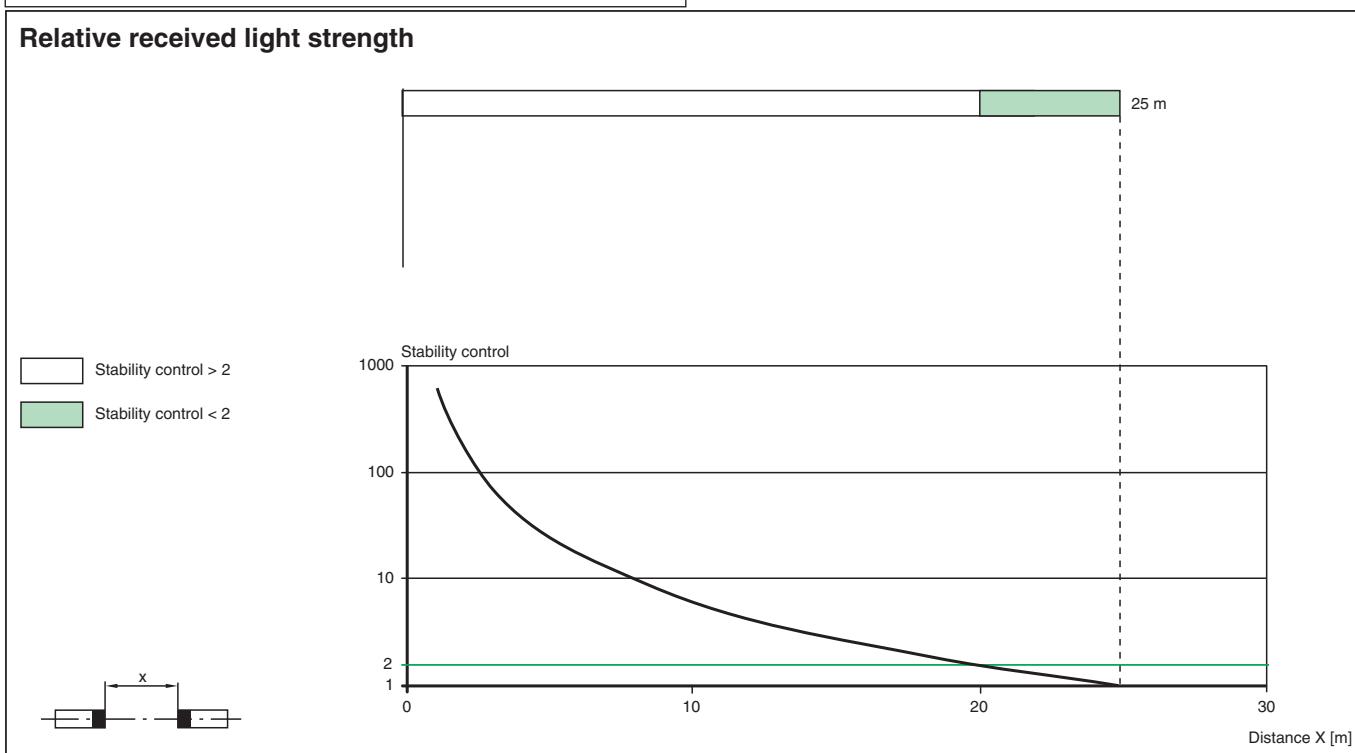
Assembly



Characteristic Curve



Relative received light strength



Accessories

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

Accessories

	BF 18-F	Plastic mounting adapter, 18 mm
	BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm