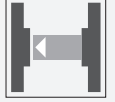


# Thru-beam sensor

## 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

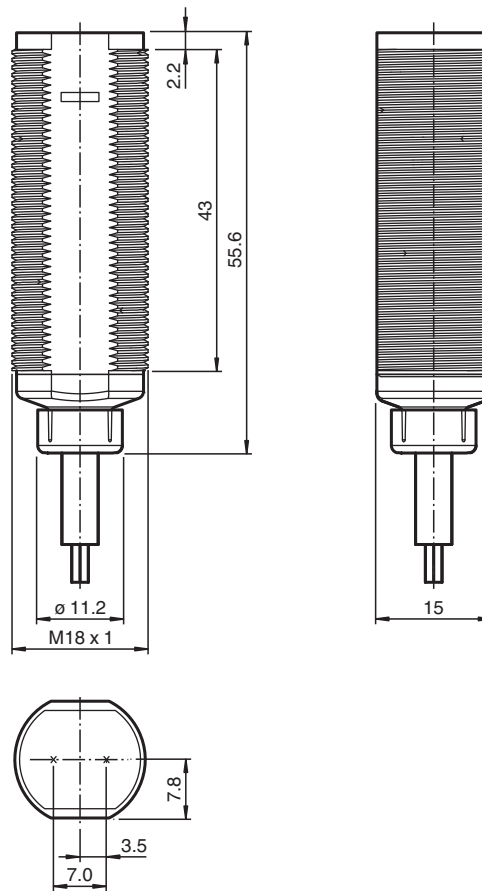
Material handling:

- 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

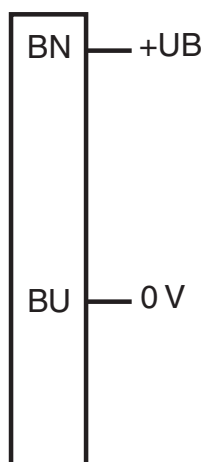
System components		
Emitter		GA18/115
Receiver		GK18/59/115/161
General specifications		
Effective detection range		0 ... 20 m
Threshold detection range		25 m
Light source		LED
Light type		modulated visible red light , 640 nm
Diameter of the light spot		approx. 1000 mm at 25 m
Opening angle		approx. 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

## Technical Data

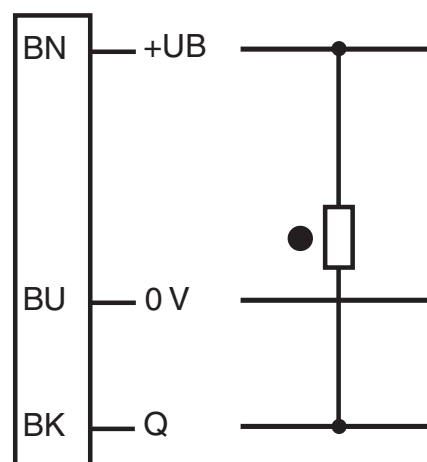
Signal output	N-channel MOSFET, short circuit protected	
Switching voltage		max. 250 V AC/DC
Switching current		max. 200 mA
Voltage drop	$U_d$	$\leq 3.5$ V AC/DC
Switching frequency	$f$	50 Hz
Response time		$\leq 10$ ms
<b>Conformity</b>		
Product standard		EN 60947-5-2
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		UL 508
<b>Approvals and certificates</b>		
Protection class		II, rated insulation voltage $\leq 250$ 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)
<b>Ambient conditions</b>		
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
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

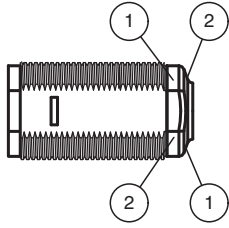


### Receiver



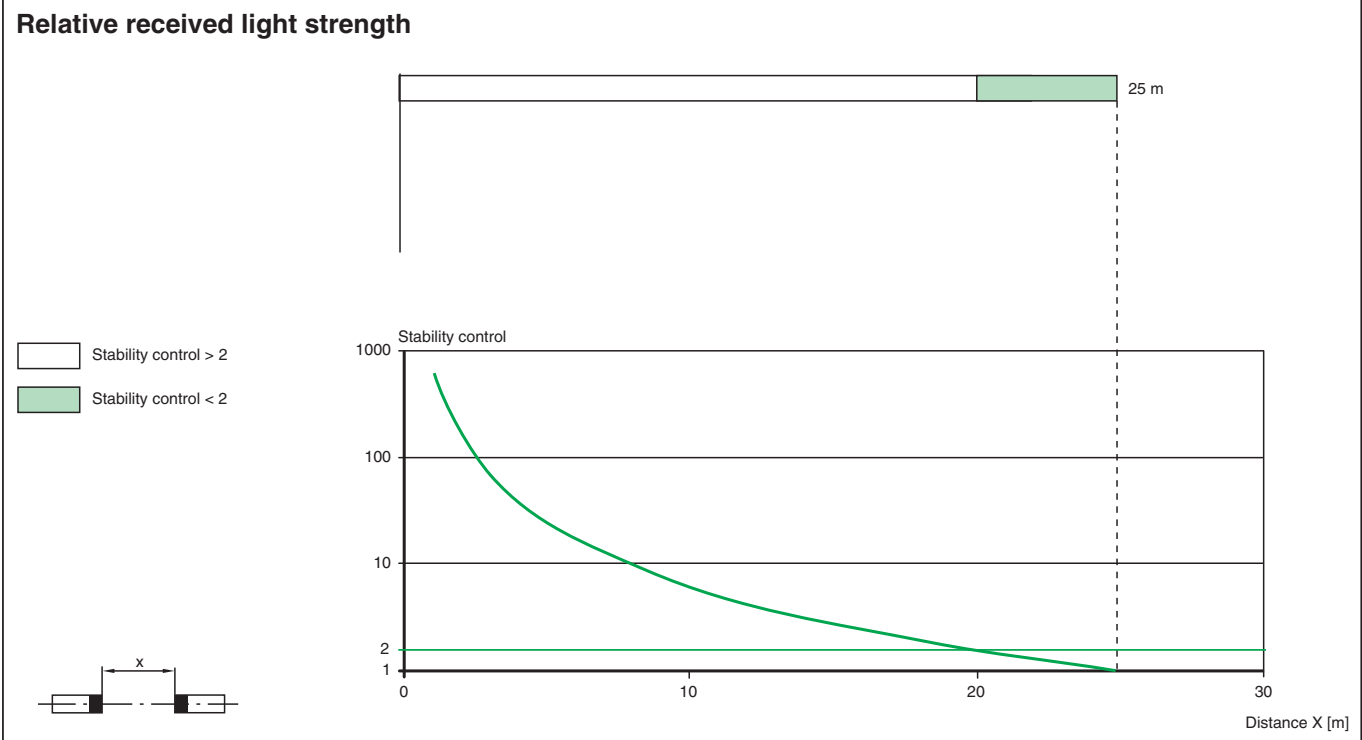
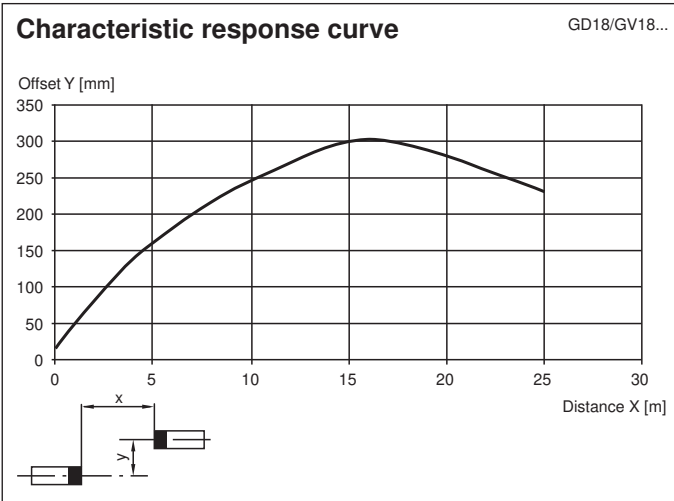
- = Light on
- = Dark on

**Assembly**





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

**Characteristic Curve**





**Accessories**

	<b>CPZ18B03</b>	Mounting Bracket with swivel nut
	<b>BF 18</b>	Mounting flange, 18 mm

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

**Accessories**

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