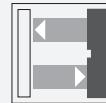




## Diffuse mode sensor

### GLV18-8-450/25/102/159



- Efficient Line in a short M18 plastic housing for standard applications
- Very high detection range
- 4 LEDs indicator for 360° visibility
- Optimized potentiometer design for a clear control button layout in the application
- Version with front optical face
- DC voltage version

Diffuse mode sensor, M18 threaded housing design, plastic housing, front optical face, 450 mm detection range, red light, light on, DC version, NPN output, M12 plug



## 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

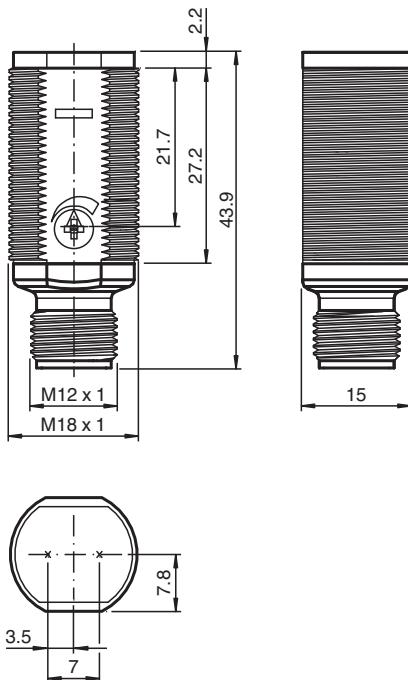
Material handling:

- 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: 2023-03-28 Date of issue: 2023-03-28 Filename: 188563\_eng.pdf

### General specifications

Detection range	50 ... 450 mm adjustable	
Detection range max.	0 ... 450 mm	
Reference target	100 mm x 100 mm Kodak white	
Light source	LED	
Light type	modulated visible red light , 640 nm	
Diameter of the light spot	approx. 30 mm at 400 mm	
Opening angle	approx. 4 °	
Optical face	frontal	
Ambient light limit	30000 Lux	
Hysteresis	H	< 15 %

### Functional safety related parameters

MTTF <sub>d</sub>	920 a	
Mission Time (T <sub>M</sub> )	20 a	
Diagnostic Coverage (DC)	0 %	

### Indicators/operating means

Operation indicator	LED green, statically lit Power on	
Function indicator	LED yellow: lights when object is detected ; flashes when falling short of the operating reserve	
Control elements	sensitivity adjustment	

### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
No-load supply current	I <sub>0</sub>	< 20 mA

### Output

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

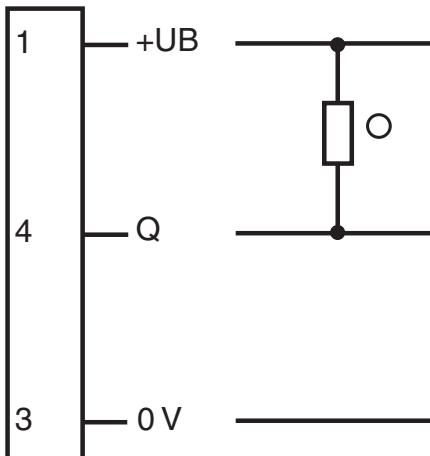
 PEPPERL+FUCHS

## Technical Data

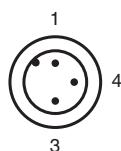
Switching type	light-on	
Signal output	1 NPN, short-circuit protected open collector	
Switching voltage	max. 30 V DC	
Switching current	max. 100 mA	
Voltage drop	$U_d$	$\leq 1.5$ V DC
Switching frequency	$f$	500 Hz
Response time	$\leq 1$ ms	
<b>Conformity</b>		
Product standard	EN 60947-5-2	
<b>Approvals and certificates</b>		
Protection class	II, Rated insulation voltage $\leq 50$ V AC with pollution degree 1-2 according to IEC 60664-1	
UL approval	cULus Listed, Class 2 Power Source	
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V	
<b>Ambient conditions</b>		
Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)	
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)	
<b>Mechanical specifications</b>		
Degree of protection	IP67	
Connection	3-pin, M12 x 1 connector	
Material		
Housing	PC	
Optical face	PMMA	
Connector	plastic	
Mass	approx. 10 g	

## Connection Assignment

Option: 102



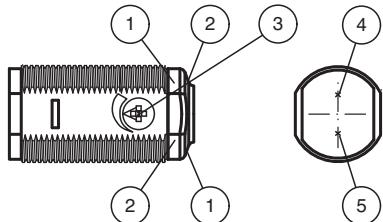
○ = Light on  
 ● = Dark on



Wire colors in accordance with EN 60947-5-2

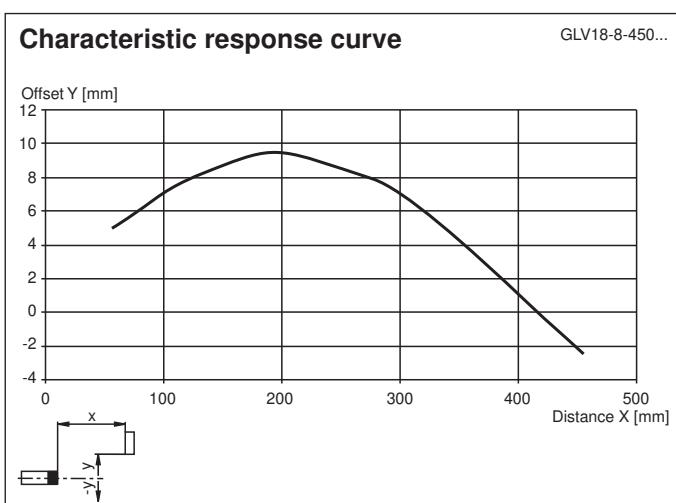
1	BN	(brown)
3	BU	(blue)
4	BK	(black)

## Assembly

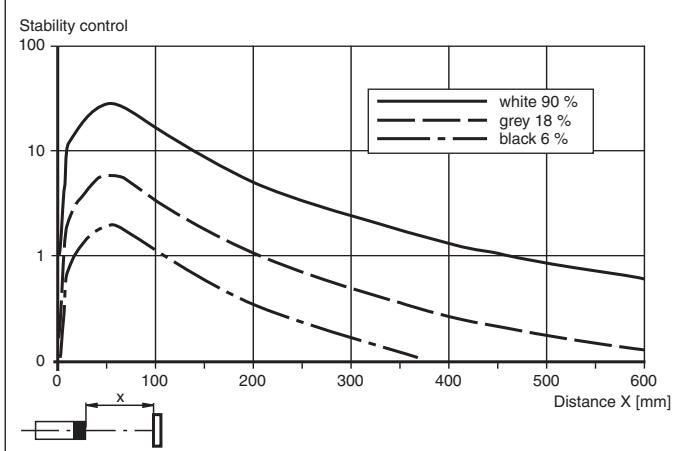


1	Operating display	green
2	Signal display	yellow
3	Sensitivity adjustment	
4	Emitter	
5	Receiver	

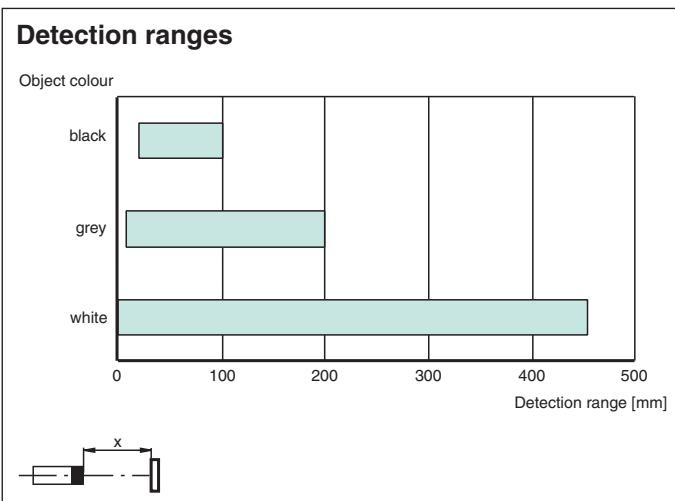
## Characteristic Curve



## Relative received light strength



## Characteristic Curve



## Accessories

	<b>CPZ18B03</b>	Mounting Bracket with swivel nut
	<b>BF 18</b>	Mounting flange, 18 mm
	<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
	<b>V11-G-2M-PUR</b>	Female cordset single-ended M12 straight A-coded, 3-pin, PUR cable grey