

# Background suppression sensor

## GLV18-8-H-120/25/102/115



- Efficient Line in a short M18 plastic housing for standard applications
- Best background suppressor in its class
- Minimal black-white difference
- 4 LEDs indicator for 360° visibility
- Optimized potentiometer design for a clear control button layout in the application

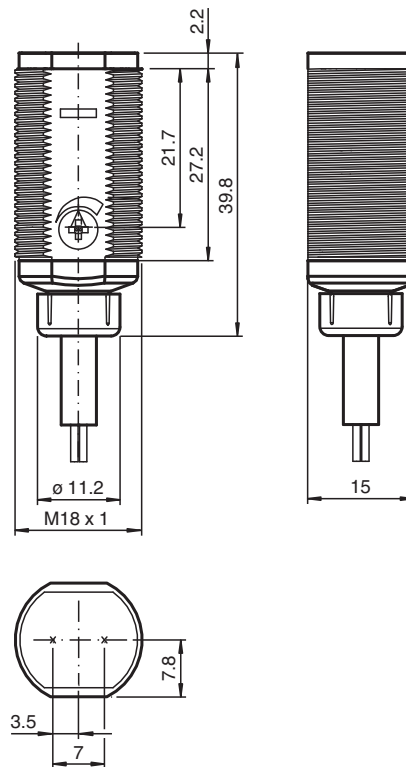
Triangulation sensor with background suppression, M18 threaded housing design, plastic housing, front optical face, 120 mm detection range, red light, light on, DC version, NPN output, fixed cable



### 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.

### Dimensions



## Technical Data

### General specifications

Detection range	10 ... 120 mm
Detection range min.	10 ... 40 mm
Detection range max.	15 ... 120 mm
Adjustment range	40 ... 120 mm
Reference target	100 mm x 100 mm Kodak white
Light source	LED
Light type	modulated visible red light , 640 nm
Black-white difference (6 %/90 %)	< 6 %
Diameter of the light spot	approx. 6 mm at detection range 120 mm
Opening angle	approx. 2 °
Optical face	frontal
Ambient light limit	30000 Lux
Hysteresis	H < 2 %

### Functional safety related parameters

MTTF <sub>d</sub>	1340 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
Control elements	Sensing range adjuster

### Electrical specifications

Operating voltage	U <sub>B</sub>	10 ... 30 V DC
No-load supply current	I <sub>0</sub>	< 15 mA

### Output

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 <sub>d</sub>	≤ 1.5 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms

### Conformity

Product standard	EN 60947-5-2
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### Approvals and certificates

Protection class	II, Rated insulation voltage ≤ 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 ≤36 V

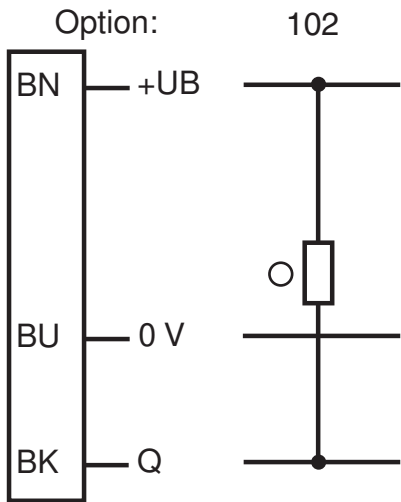
### Ambient conditions

Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)
Storage temperature	-30 ... 70 °C (-22 ... 158 °F)

### Mechanical specifications

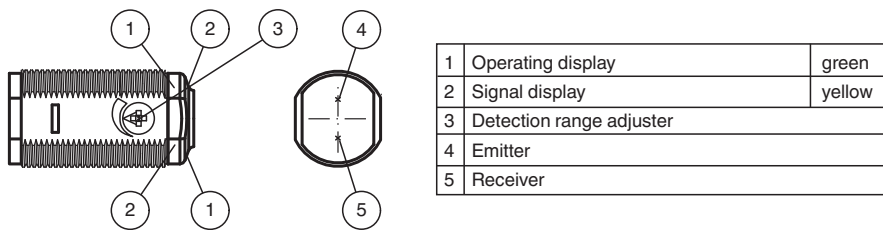
Degree of protection	IP67
Connection	2 m fixed cable
Material	
Housing	PC
Optical face	PMMA
Cable	PVC
Mass	approx. 75 g

Connection Assignment

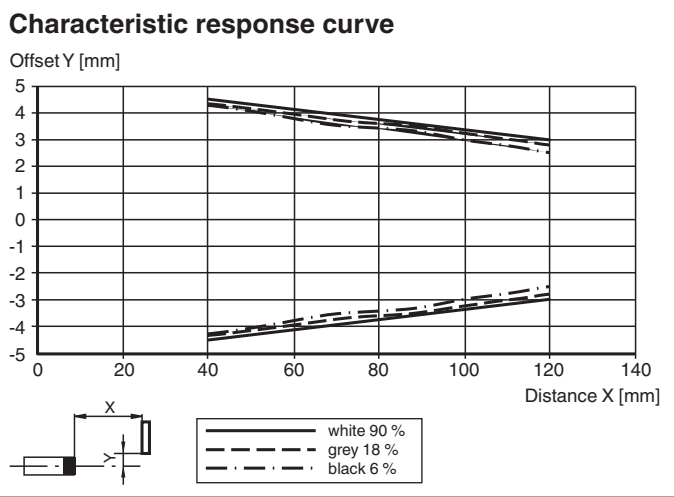


○ = Light on  
● = Dark on

Assembly

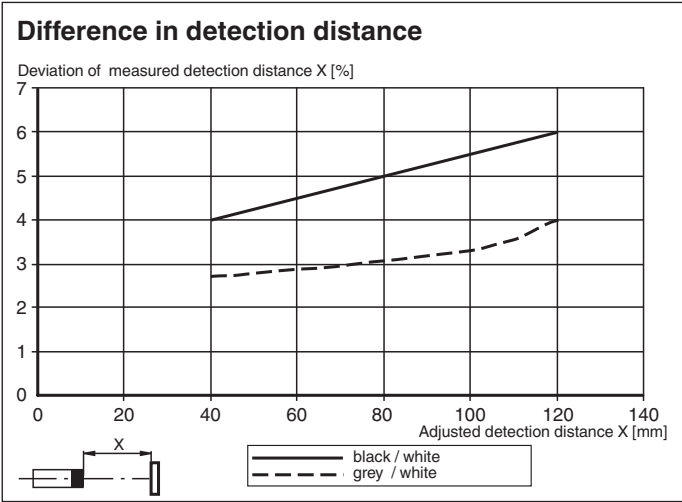


Characteristic Curve







Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 212928\_eng.pdf

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