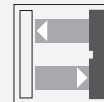




Background suppression sensor

GLV18-8-H-120/59/102/159



- 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

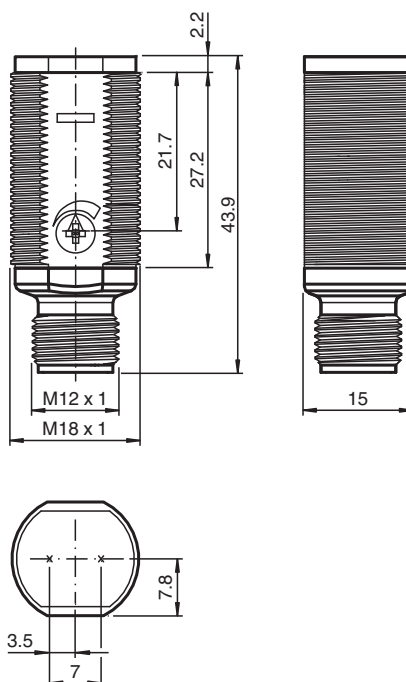
Triangulation sensor with background suppression, M18 threaded housing design, plastic housing, front optical face, 120 mm detection range, red light, dark on, DC version, NPN output, M12 plug



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.

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 _d	1340 a
Mission Time (T _M)	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 _B	10 ... 30 V DC
No-load supply current	I ₀	< 15 mA

Output

Switching type		dark-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	≤ 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

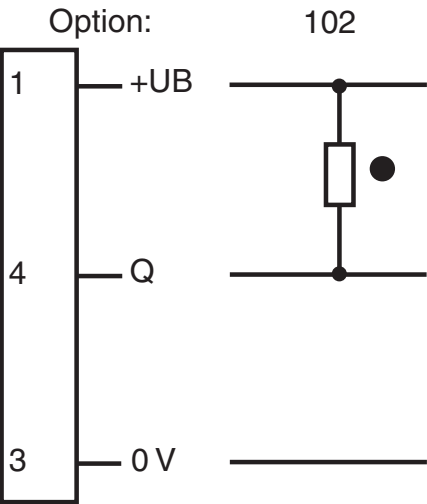
Ambient conditions

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

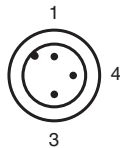
Mechanical specifications

Degree of protection	IP67
Connection	3-pin, M12 x 1 connector
Material	
Housing	PC
Optical face	PMMA
Connector	plastic
Mass	approx. 10 g

Connection Assignment



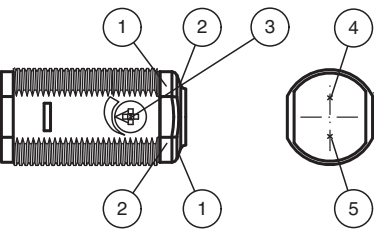
○ = Light on
● = Dark on



Wire colors in accordance with EN 60947-5-2

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

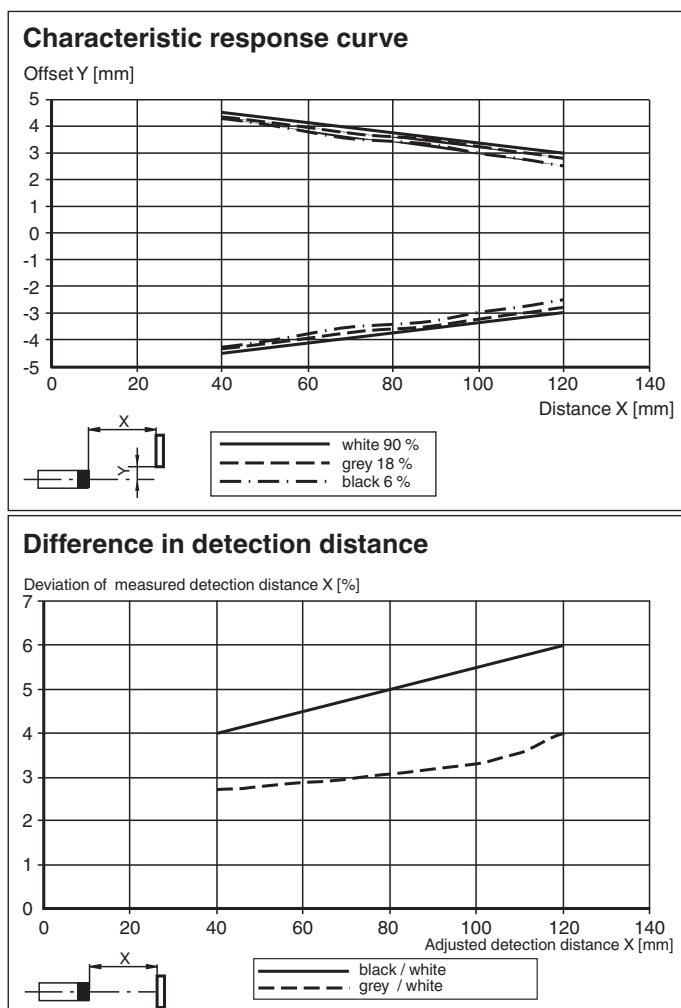
Assembly



1	Operating display	green
2	Signal display	yellow
3	Detection range adjuster	
4	Emitter	
5	Receiver	

Release date: 2023-04-04 Date of issue: 2023-04-04 Filename: 212926_eng.pdf

Characteristic Curve



Accessories

	CPZ18B03	Mounting Bracket with swivel nut
	BF 18	Mounting flange, 18 mm
	BF 18-F	Plastic mounting adapter, 18 mm
	BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
	V11-G-2M-PUR	Female cordset single-ended M12 straight A-coded, 3-pin, PUR cable grey