Dimensions

Model Number

GLV18-8-H-120/73/120

Background suppression sensor
with 4-pin, M12 x 1 plastic connector

Features

- 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

Product information

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.

Electrical connection

Option:　　　　/120
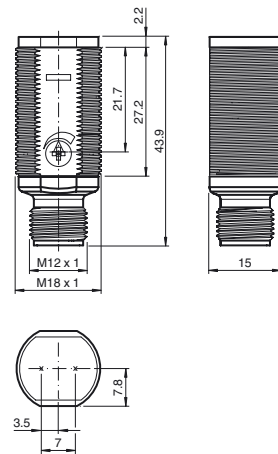
○ = Light on
● = Dark on
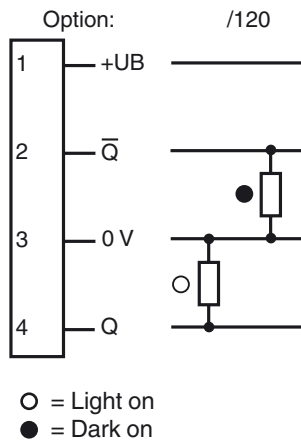
Pinout
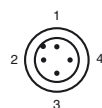
Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Indicators/operating means
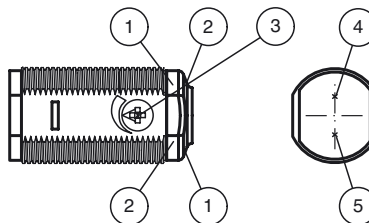
1	Operating display	green
2	Signal display	yellow
3	Detection range adjuster	
4	Emitter	
5	Receiver	

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

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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
Angle of divergence		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		light/dark on
Signal output		2 PNP, complementary, short-circuit protected, open collectors
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

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	4-pin, M12 x 1 connector
Material	
Housing	PC
Optical face	PMMA
Connector	plastic
Mass	approx. 10 g

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, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V

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
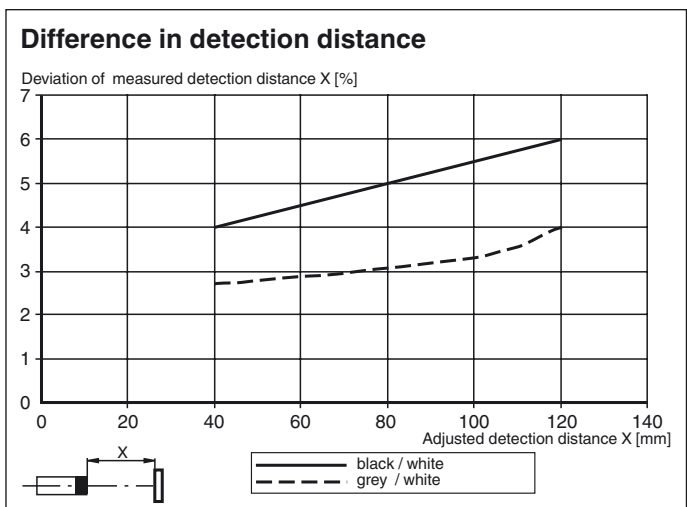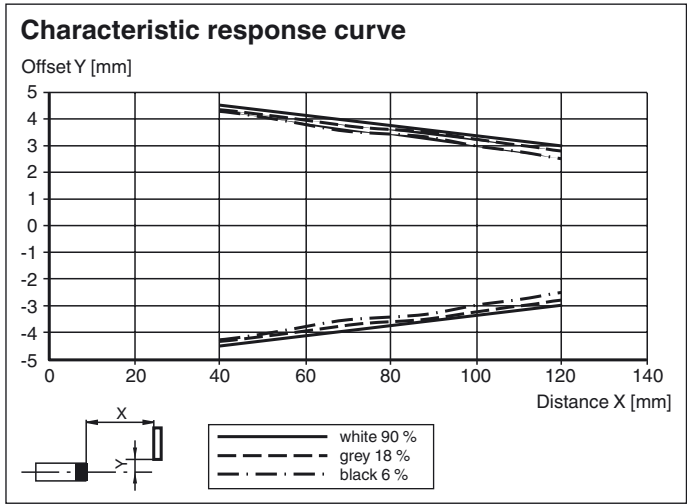
V1-G-2M-PUR
Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR
Female cordset, M12, 4-pin, PUR cable

Other suitable accessories can be found at www.pepperl-fuchs.com

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

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Curves/Diagrams

Characteristic response curve

Offset Y [mm]

Distance X [mm]

X

—— white 90 %
- - - grey 18 %
-·-·- black 6 %

Difference in detection distance

Deviation of measured detection distance X [%]

Adjusted detection distance X [mm]

X

—— black / white
- - - grey / white

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