CE c(UL)us ▫

Model Number

GLV18-55/73/120

Retroreflective sensor
with 4-pin, M12 x 1 plastic connector

Features

- 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

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.

Dimensions

Electrical connection

Option: /120
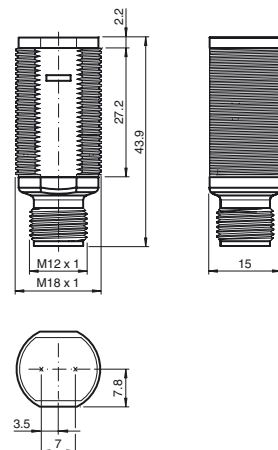
○ = Light on
● = Dark on
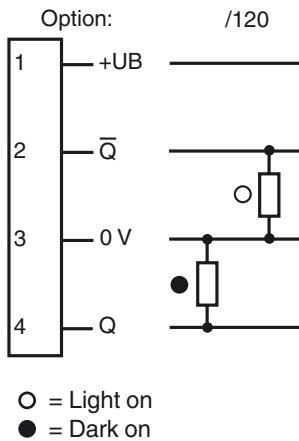
Pinout
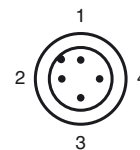
Indicators/operating means
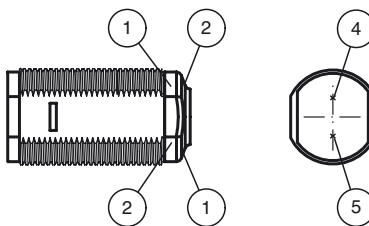
1	Operating display	green
2	Signal display	yellow
4	Emitter	
5	Receiver	

Subject to modifications without notice

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1

Technical data

General specifications

Effective detection range	0 ... 4 m
Reflector distance	0.05 ... 4 m
Threshold detection range	5.5 m
Reference target	reflector C110-2
Light source	LED
Light type	modulated visible red light , 640 nm
Diameter of the light spot	approx. 200 mm at 5.5 m
Angle of divergence	approx. 2 °
Optical face	frontal
Ambient light limit	30000 Lux

Functional safety related parameters

$MTTF_d$	920 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Operating display	LED green, statically lit Power on
Function display	LED yellow: lights up when receiving the light beam ; flashes when falling short of the stability control; OFF when light beam is interrupted

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC
No-load supply current	I_0	< 20 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

Ambient conditions

Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

Mechanical specifications

Protection degree	IP67
Connection	connector M12 x 1, 4-pin
Material	
Housing	PC
Optical face	PMMA
Connector	plastic
Mass	approx. 10 g

Compliance with standards and directives

Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

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	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Accessories

CPZ18B03
Mounting Bracket with swivel nut

BF 18
Mounting flange, 18 mm

BF 18-F
Mounting flange with dead stop, 18 mm

BF 5-30
Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
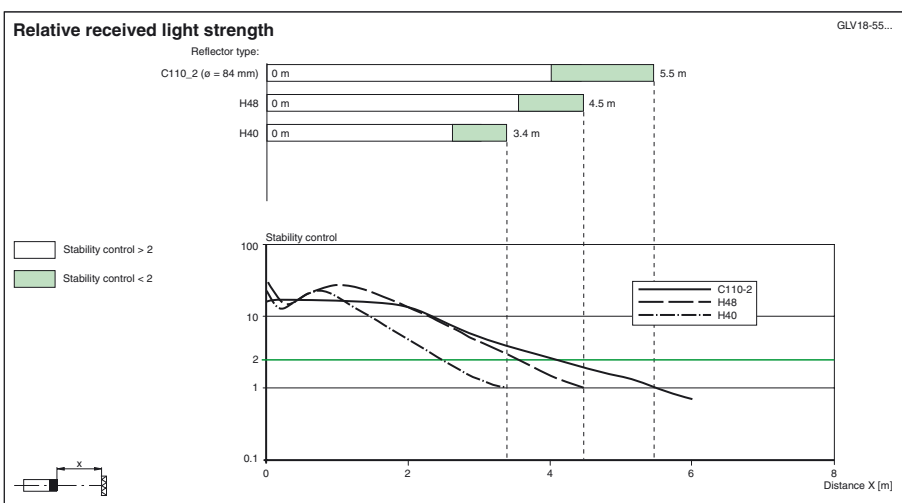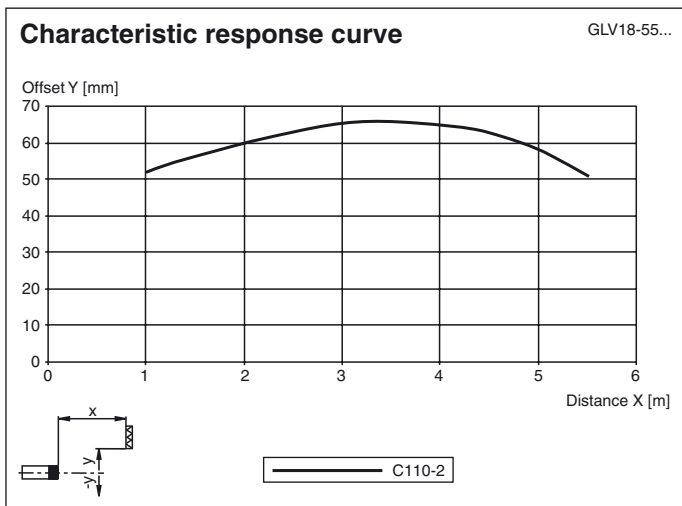
V1-G-2M-PUR
Cable socket, M12, 4-pin, PUR cable

V1-W-2M-PUR
Cable socket, M12, 4-pin, PUR cable

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

Curves/Diagrams

Characteristic response curve

GLV18-55...

Offset Y [mm]

Distance X [m]

C110-2

Relative received light strength

GLV18-55...

Reflector type:

C110_2 (ø = 84 mm)   0 m — 5.5 m

H48   0 m — 4.5 m

H40   0 m — 3.4 m

Stability control > 2

Stability control < 2

Stability control

C110-2
H48
H40

Distance X [m]

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3