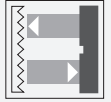# Retroreflective sensor

GLV18-55/115/120

- 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

Retroreflective sensor with polarization filter, M18 threaded housing design, plastic housing, front optical face, 4 m detection range, red light, light/dark on, DC version, 2 PNP outputs, 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
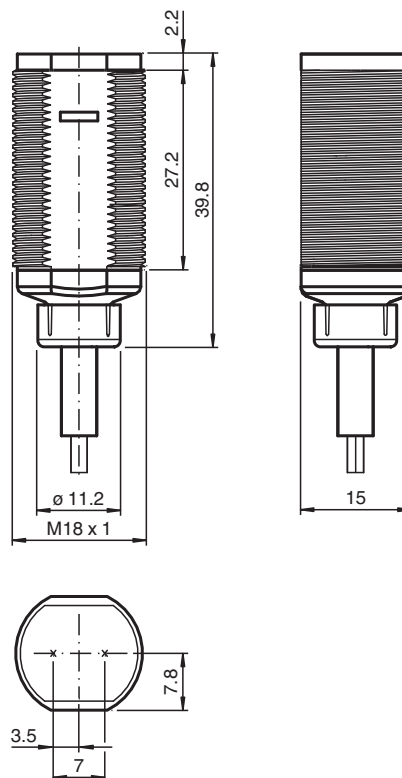
Technical Data

General specifications

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
Polarization filter	yes
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

Operation indicator	LED green, statically lit Power on
Function indicator	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

Conformity

Product standard	EN 60947-5-2

Approvals and certificates

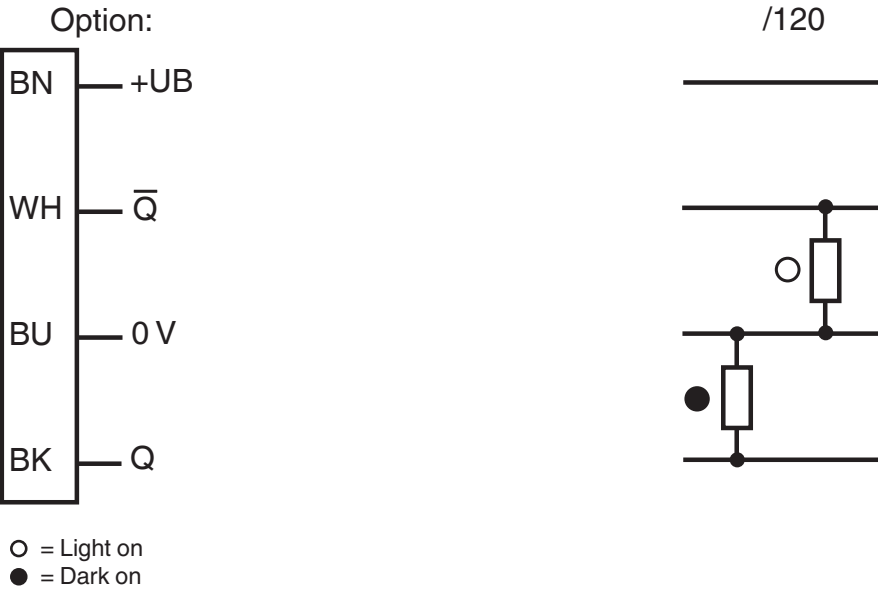|	
Protection class	II, Rated insulation voltage ≤ 50 V AC with pollution degree 1-2 according to IEC 60664-1
UL approval	cULus Listed, Class 2 Power Source
CCC approval	CCC approval / marking not required for products rated ≤36 V

Ambient conditions

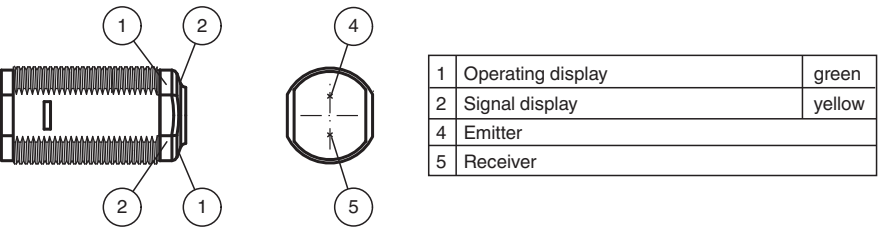|	
Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)
Storage temperature	-40 ... 70 °C (-40 ... 158 °F)

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

Option:
/120

BN —— +UB

WH —— $\overline{Q}$

BU —— 0 V

BK —— Q

○ = Light on
● = Dark on

Assembly

1	Operating display	green
2	Signal display	yellow
4	Emitter	
5	Receiver	

Characteristic Curve

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

Distance X [m]

Legend:
- C110-2
- H48
- H40
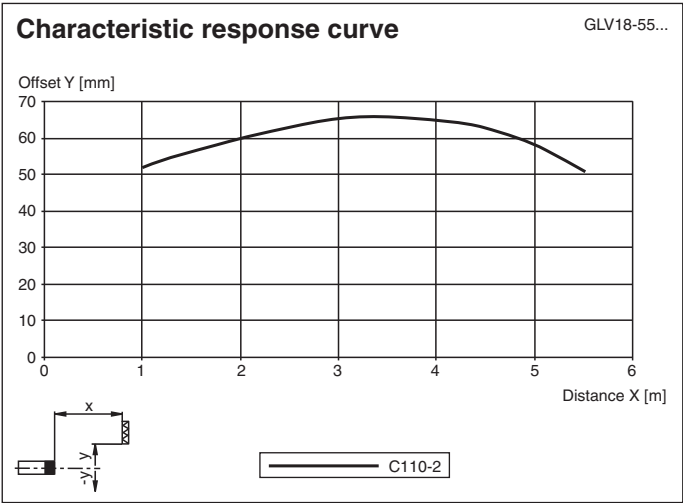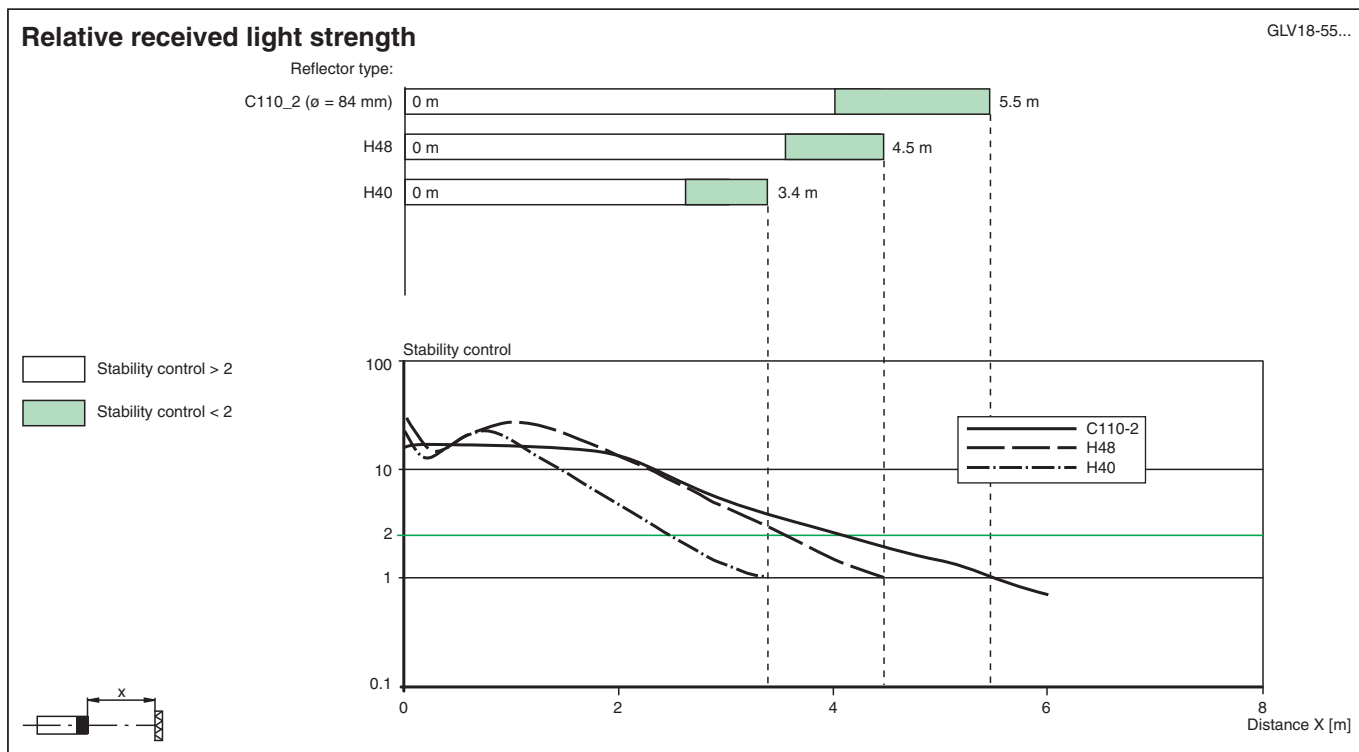
Application

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

Accessories

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

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