



Retroreflective sensor GLV18-6-4594-10M



- Short design in M18 plastic housing
- 4 LEDs indicator for 360° visibility
- Optimal price/power ratio

Retroreflective sensor



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.

Application

Packaging industry:

- Presence checks, track loading, completeness checks, stack height control

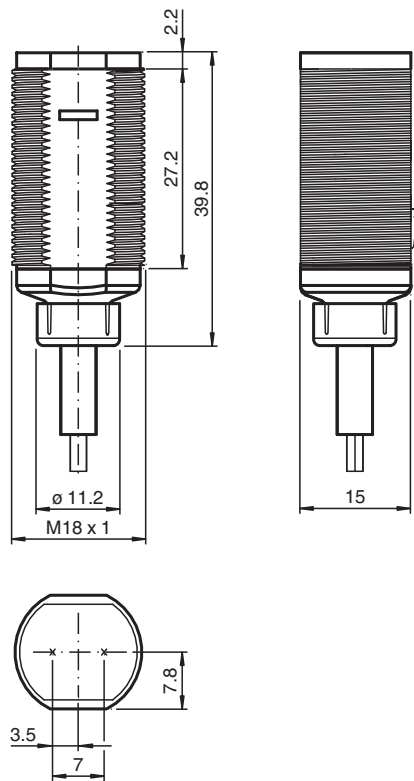
Material handling:

- 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

Dimensions



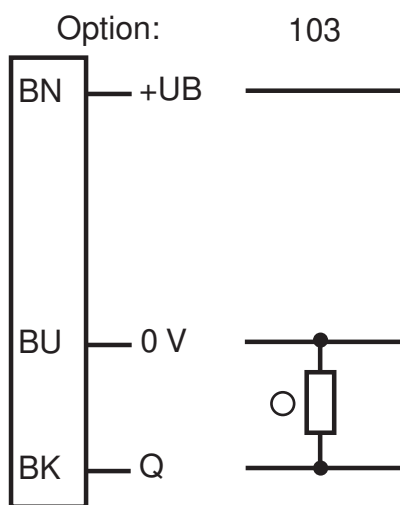
Technical Data

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		IRED
Light type		IRED , Modulated light , 880 nm
Polarization filter		no
Diameter of the light spot		approx. 200 mm at 5.5 m
Opening angle		approx. 2 °
Optical face		frontal
Ambient light limit		30000 Lux
Accessories provided		Mounting Nut
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 operating reserve; 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-on

Technical Data

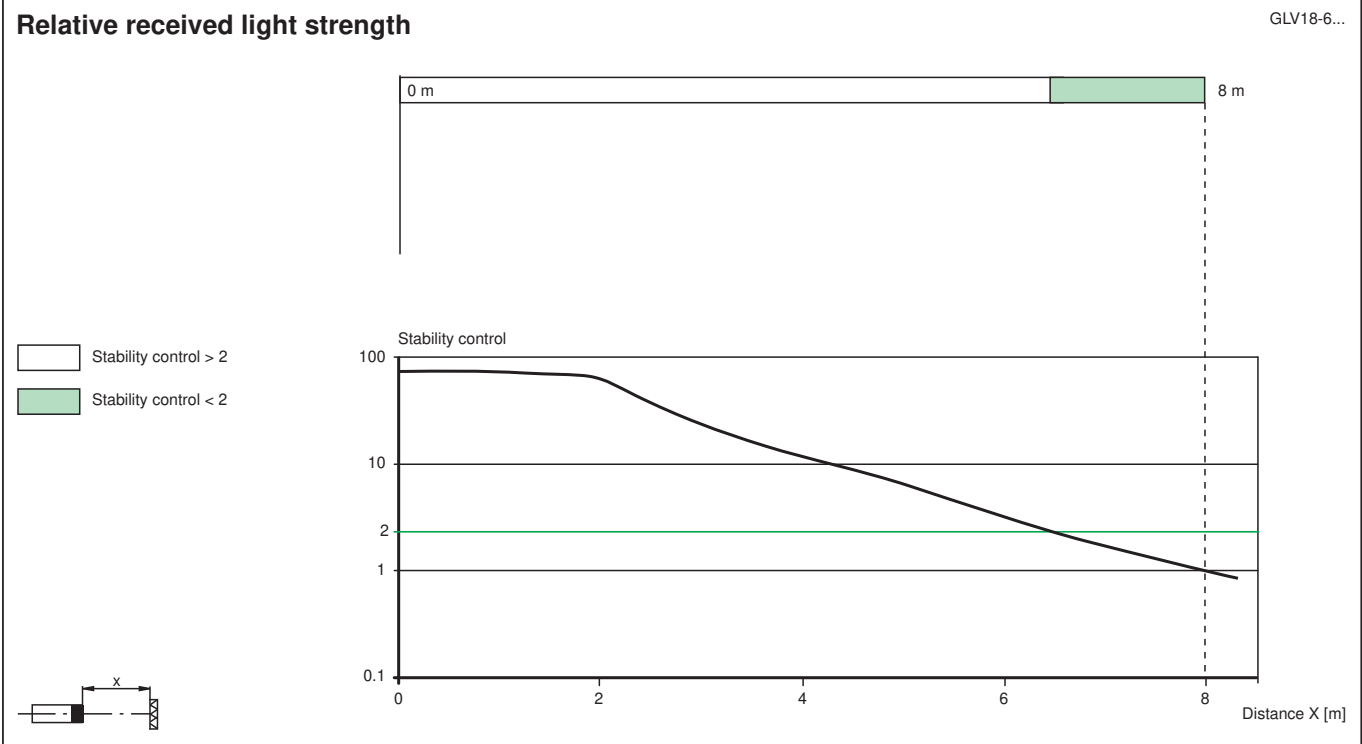
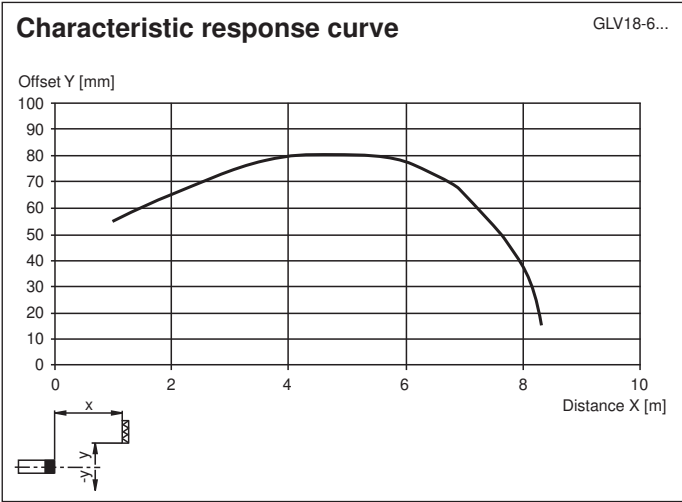
Signal output	1 PNP, short-circuit protected, open collector	
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Voltage drop	U_d	≤ 1.5 V DC
Switching frequency	f	500 Hz
Response time		≤ 1 ms
Conformity		
Product standard		EN 60947-5-2
Approvals and certificates		
Protection class		II, Rated 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		fixed cable 10 m
Material		
Housing		PC
Optical face		PMMA
Mass		approx. 335 g

Connection Assignment



○ = Light on
● = Dark on

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

System Description

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The retro-reflective sensor contains both an emitter and a receiver in a single housing. A reflector reflects the light from emitter back to the receiver. If an object interrupts the light beam, the switching function is initiated.

Mounting

Sensor: The sensors have an M18 x 1 threaded housing design, and two 24 mm AF nuts, which must be fitted with a maximum torque of 1.5 Nm. The sensors can be mounted directly through a simple bore of Ø 18 mm, or using a mounting bracket. Mounting brackets are available as accessories.

Pay careful attention to the position and visibility of the programming interface or signal indicators during mounting.

Commissioning

Aligning the sensor: Apply the operating voltage to the sensor. The operating indicator lights up green.

Mount a suitable reflector opposite the light barrier. Roughly align the sensor (without an object) with the reflector. Next, adjust the sensor to the reflector by swiveling the sensor horizontally and vertically so that the yellow signal indicator lights up continuously. In the event of misalignment, the yellow signal indicator flashes.

Commissioning

Checking object detection: Follow the steps below to check that the sensor detects objects as required.

Position the object in the beam path of the sensor.

When the object is detected, the yellow signal indicator goes out. If the yellow signal indicator remains lit, reduce the sensitivity of the potentiometer until the yellow signal indicator goes out.

When the object disappears from the beam path of the sensor, the yellow signal indicator lights up again continuously.

Maintenance

Maintenance

Cleaning: If the transmission reception deteriorates, e.g., due to dirt, the yellow signal indicator on the receiver flashes. Clean the optical interfaces of the sensor (e.g., lenses) at regular intervals.

Maintenance: Check the mounting fittings and the electrical connections regularly.