

Retroreflective sensor, M18 threaded housing design, plastic housing, front optical face, 6.5 m detection range, red light, light on, DC version, NPN output, 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.

### Application

Packaging industry:

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

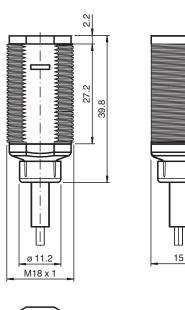
Material handling:

- · 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

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



#### **Dimensions**

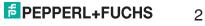




## **Technical Data**

Effective detection range         06.5 m           Reflector distance         0.056.5 m           Threshold detection range         8 m           Reference target         10 effector C110-2           Light source         LED           Light type         modulated visible red light , 640 nm           Polarization filter         no           Diameter of the light spot         approx. 300 nm at 8 m           Opening angle         approx. 2 °           Optical face         frontal           Ambient light limit         30000 Lux           Functional safety related parameters         20 a           MTTF_d         920 a           Nission Time (T <sub>M</sub> )         0 %           Diagnostic Coverage (DC)         0 %           Deperation indicator         LED green, statically lit Power on           Function indicator         LED green, statically lit Power on			
Reflector distance       0.05 6.5 m         Threshold detection range       8 m         Reference target       i reflector C110-2         Light source       LED         Light source       LED         light type       modulated visible red light, 640 nm         Polarization filter       no         Diameter of the light spot       approx. 300 nm at 8 m         Opening angle       approx. 2 °         Optical face       fontal         Ambient light limit       30000 Lux         HTTFd         MTTFd       920 a         Nission Time (T <sub>M</sub> )       20 a         Diagnostic Coverage (DC)       0%         LED green, statically lit Power on         Function indicator       LED green, statically lit Power on         Light specifications       LED greenver, OFF when light beam ; flashes when falling short of the operating reserve; OFF when light beam is interrupted	General specifications		
Threshold detection range     8 m       Reference target     9 m       Light source     LED       Light source     modulated visible red light , 640 nm       Polarization filter     no       Diameter of the light spot     approx. 300 mm at 8 m       Opening angle     approx. 2 °       Optical face     frontal       Ambient light limit     30000 Lux       Functional safety related parameters     920 a       MTTFd     920 a       Mission Time (T <sub>M</sub> )     20 a       Diangostic Coverage (DC)     0%       Operation indicator     LED green, statically lit Power on       Function indicator     LED green, statically lit Power on       Function indicator     LED green, statically lit Power on       Electrical specifications     LED yellow: lights up when receiving the light beam ; flashes when falling short of the lower and is interrupted	Effective detection range		0 6.5 m
Reference target       image: reflector C110-2         Light source       LED         Light type       modulated visible red light , 640 nm         Polarization filter       no         Diameter of the light spot       approx. 300 mm at 8 m         Opening angle       approx. 2°         Optical face       frontal         Ambient light limit       30000 Lux         Functional safety related parameters       920 a         MTTFd       920 a         Diagnostic Coverage (DC)       0%         Operation indicator       LED green, statically lit Power on         Porticional indicator       LED green, statically the light beam ; flashes when falling short of the greating reserve; OFF when light beam is interrupted	Reflector distance		0.05 6.5 m
Light source       LED         Light source       modulated visible red light , 640 nm         Polarization filter       no         Diameter of the light spot       approx. 300 nm at 8 m         Opening angle       approx. 2°         Optical face       frontal         Ambient light limit       30000 Lux         Functional safety related parameters       920 a         MTTFd       920 a         Diagnostic Coverage (DC)       0%         Indicators/operating means       LED green, statically lit Power on         Function indicator       LED green, statically lit Power on         Function 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	Threshold detection range		8 m
Light type       Image: Constraint of the light type       modulated visible red light , 640 nm         Polarization filter       no         Diameter of the light spot       approx. 300 nm at 8 m         Opening angle       approx. 2 °         Optical face       frontal         Ambient light limit       30000 Lux         Functional safety related parameters       g20 a         MTTF <sub>d</sub> 920 a         Diagnostic Coverage (DC)       0%         Indicators/operating means       LED green, statically lit Power on         Vertion 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	Reference target		reflector C110-2
Polarization filter     no       Diameter of the light spot     approx. 300 mm at 8 m       Opening angle     approx. 2 °       Optical face     frontal       Ambient light limit     30000 Lux       Functional safety related parameters     30000 Lux       MTTF <sub>d</sub> 920 a       Mission Time (T <sub>M</sub> )     20 a       Diagnostic Coverage (DC)     0 %       Indicators/operating means     LED green, statically lit Power on       Function 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	Light source		LED
Diameter of the light spot       approx. 300 mm at 8 m         Opening angle       approx. 2°         Optical face       frontal         Ambient light limit       30000 Lux         Functional safety related parameters       30000 Lux         MTTF <sub>d</sub> 920 a         Mission Time (T <sub>M</sub> )       20 a         Diagnostic Coverage (DC)       0%         Indicators/operating means       LED green, statically lit Power on         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	Light type		modulated visible red light , 640 nm
Opening angle       approx. 2 °         Optical face       frontal         Ambient light limit       30000 Lux         Functional safety related parameters       30000 Lux         MTTF <sub>d</sub> 920 a         Mission Time (T <sub>M</sub> )       20 a         Diagnostic Coverage (DC)       0 %         Indicators/operating means       LED green, statically lit Power on         Vertication indicator       LED green, statically lit Power on         Function indicators       LED yellow: lights up when receiving the light beam ; flashes when falling short of the operating reserve; OFF when light beam is interrupted	Polarization filter		no
Optical facefrontalAmbient light limit30000 LuxFunctional safety related parametersMTTFd920 aMTTFd920 aMission Time (TM)20 aDiagnostic Coverage (DC)0%Indicators/operating meansOperation indicatorLED green, statically lit Power onSupport indicatorLED yellow: lights up when receiving the light beam ; flashes when falling short of the operating reserve; OFF when light beam is interrupted	Diameter of the light spot		approx. 300 mm at 8 m
Ambient light limit       30000 Lux         Functional safety related parameters       Intervention         MTTFd       920 a         Mission Time (TM)       20 a         Diagnostic Coverage (DC)       0%         Indicators/operating means       EED green, statically lit Power on         Coperation indicator       LED green, statically lit Power on         Function indicators       LED yellow: lights up when receiving the light beam ; flashes when falling short of the operating reserve; OFF when light beam is interrupted	Opening angle		approx. 2 °
Functional safety related parameters         MTTFd       920 a         Mission Time (T <sub>M</sub> )       20 a         Diagnostic Coverage (DC)       0 %         Indicators/operating means       0 %         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	Optical face		frontal
MTTFd       920 a         Mission Time (T <sub>M</sub> )       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 operating reserve; OFF when light beam is interrupted	Ambient light limit		30000 Lux
Mission Time (T <sub>M</sub> )       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 operating reserve; OFF when light beam is interrupted	Functional safety related parameters		
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 operating reserve; OFF when light beam is interrupted         Electrical specifications	MTTF <sub>d</sub>		920 a
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       Electrical specifications	Mission Time (T <sub>M</sub> )		20 a
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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	Indicators/operating means		
Electrical specifications	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
Operating voltage U <sub>B</sub> 10 30 V DC	Electrical specifications		
	Operating voltage	U <sub>B</sub>	10 30 V DC

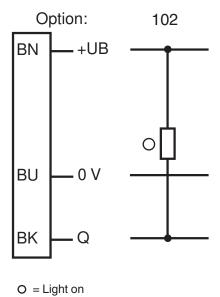
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".



## GLV18-6/25/102/115

Technical Data		
No-load supply current	I <sub>0</sub>	< 20 mA
Output		
Switching type		light-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
Approvals and certificates		
Protection class		II, Rated insulation voltage $\leq$ 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 $\leq$ 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

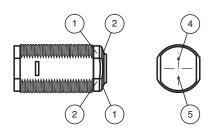
# **Connection Assignment**



= Dark on

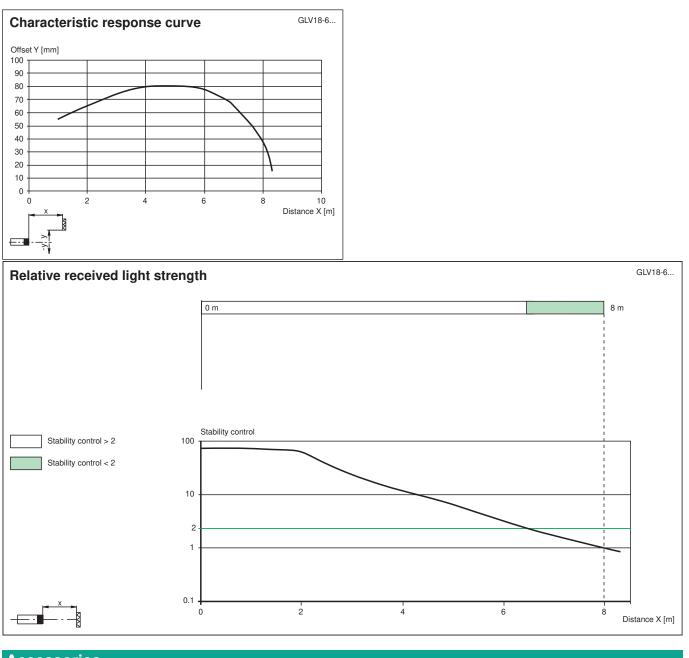
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

#### Assembly



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

# **Characteristic Curve**



## Accessories

CPZ18B03

Mounting Bracket with swivel nut

1121

BF 18

Mounting flange, 18 mm

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



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Accessories					
	BF 18-F	Plastic mounting adapter, 18 mm			
000 000 000	BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 30 mm			

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

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