

EAC <sub>c</sub>(Սլ)<sub>us</sub> 

#### **Model Number**

#### GLV18-6/73/120

Retroreflective sensor

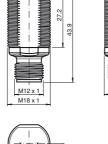
with 4-pin, M12 x 1 plastic connector

#### **Features**

- Efficient Line in a short M18 plastic ٠ housing for standard applications
- Very high detection range ٠
- 4 LEDs indicator for 360° visibility ٠
- Optimized potentiometer design for a clear control button layout in the application
- Version with front optical face
- DC voltage version •

## **Product information**

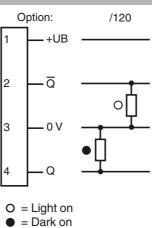
The GLV/GLK18 series sensors help improve the efficiency of machines and systems. The design of the M18 plastic housing, the connection technology, and sensor properties are highly standardized. Concentrating on the key sensor requirements has produced a robust and reliable product series for DC and AC/DC voltage systems without any overengineering. The mounting set included in the scope of delivery and the optimized potentiometer design ensure fast assembly and easy configuration.





## **Electrical connection**

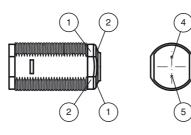
Dimensions



**Pinout** 



## Indicators/operating means



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

Pepperl+Fuchs Group www.pepperl-fuchs.com

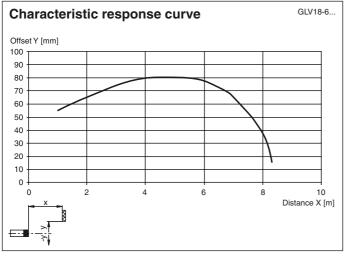
Refer to "General Notes Relating to Pepperl+Fuchs Product Information" USA: +1 330 486 0001 fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111 fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com <sup>5</sup> PEPPERL+FUCHS 1

## **Technical data**

interruptedinterruptedinterruptedUB10 30 V DCNo-load supply current $I_0$ < 20 mA			
Reflector distance   0.05 6.5 m     Threshold detection range   8 m     Reference target   reflector C110-2     Light source   LED     Light source   LED     Light type   modulated visible red light, 640 nm     Diameter of the light spot   approx. 300 nm at 8 m     Angle of divergence   approx. 2 °     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   920 a     MTFr <sub>0</sub> 920 a     Diagnostic Coverage (DC)   0 %     Indicator/soperating means   Operation indicator     Coperation indicator   LED green, statically lit Power on     Functional safety related parameters   Monon of the stability control; OFF when light beam it interrupted     Uperation indicator   LED green, statically lit Power on     Function indicator   LED yellow: light/dark on     Signal output   2 PNP, complementary, short-circuit protected, open collectors     Switching voltage   max. 30 V DC     Switching frequency   f. 500 Hz     Response time   ≤ 1 ms     Conformity   F     Product sta	General specifications		
Threshold detection range   8 m     Reference target   reflector 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     Angle of divergence   approx. 2°     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   MTTFg     MTFg   920 a     Mission Time (T <sub>M</sub> )   20 a     Diagnostic Coverage (DC)   0 %     Indicators/Operating means   Dogeration indicator     Function indicator   LED green, statically lit Power on     Function indicator   LED yellow: lights up when receiving the light beam ; flashes when failing short of the stability control; OFF when light beam is interrupted     Electrical specifications   Up     Operating voltage   Up   1030 V DC     No-load supply current   Iq   20 mA     Output   2 PNP, complementary, short-circuit protected, open collectors     Switching voltage   max. 100 mA     Voltage drop   U_g   1.5 V DC     Switching requen	Effective detection range		0 6.5 m
Reference target   reflector C110-2     Light source   LED     Ught type   modulated visible red light , 640 nm     Polarization filter   no     Diameter of the light spot   approx. 300 nm at 8 m     Angle of divergence   approx. 2 °     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   more than the stability control, OFF when light beam ; flashes     MTFg   920 a     Diagnostic Coverage (DC)   0 %     Indicators/operating means   Operation indicator     Coperation indicator   LED green, statically lit Power on     Function indicator   LED yellow: lights up when receiving the light beam ; flashes when failing short of the stability control, OFF when light beam is interrupted     Operation indicator   LED yellow: light/dark on     Signal output   2 PNP, complementary, short-circuit protected, open collectors     Switching voltage   max. 100 mA     Voltage drop   U <sub>d</sub> ≤ 1.5 V DC     Switching requency   f   500 Hz     Response time   ≤ 1.1 ms   Contomity     Product standard   EN 60947-5-2     Ambient co	Reflector distance		0.05 6.5 m
Light sourceLEDLight sourceLEDLight typemodulated visible red light , 640 nmPolarization filternoDiameter of the light spotapprox. 2°Angle of divergenceapprox. 2°Optical facefrontalAmbient light limit30000 LuxFunctional safety related parametersTTFgMTTFg920 aMission Time (T <sub>M</sub> )20 aDiagnostic Coverage (DC)0 %Indicator Soperating meansLED green, statically lit Power onFunction indicatorLED green, statically lit Power onFunction indicatorLED green, statically control; OFF when light beam ; flashes when falling short of the stability control; OFF when light beam is interruptedElectrical specifications0perating voltageOperating voltageUB10 30 V DCNo-load supply currentI0< 20 mA	Threshold detection range		
Light type   modulated visible red light , 640 nm     Polarization filter   no     Diameter of the light spot   approx. 300 nm at 8 m     Angle of divergence   approx. 2 °     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   MTTF <sub>d</sub> MTTF <sub>d</sub> 920 a     Mission Time (T <sub>M</sub> )   20 a     Diagnostic Coverage (DC)   0 %     Indicators/operating means   Operation indicator     Cuportain indicator   LED green, statically lif Power on     Function indicator   LED green, statically control; OFF when light beam; flashes     Mohont light yop   10 30 V DC     No-load supply current   10 < 20 mA	Reference target		reflector C110-2
Polarization filter   no     Diameter of the light spot   approx. 2 °     Angle of divergence   approx. 2 °     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   920 a     MTTF <sub>d</sub> 920 a     Diagnostic Coverage (DC)   0 %     Indicators/operating means   Degreen, statically lit Power on     Electrical specifications   LED green, statically lit Power on     Punction indicator   LED yellow: lights up when receiving the light beam ; flashes when failing short of the stability control; OFF when light beam is interrupted     Electrical specifications   Operating voltage   Ug     Oybut   0:	Light source		LED
Diameter of the light spot   approx. 300 mm at 8 m     Angle of divergence   approx. 2 °     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   MTTF <sub>d</sub> MTTF <sub>d</sub> 920 a     Mission Time (T <sub>M</sub> )   20 a     Diagnostic Coverage (DC)   0 %     Indicator/operating means   Operation indicator     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 stability control; OFF when light beam is interrupted     Electrical specifications   Operation indicator     Operating voltage   Ug   10 30 V DC     No-load supply current   Ug   2 PMP, complementary, short-circuit protected, open collectors     Switching voltage   max. 100 mA   Voltage     Switching current   max. 100 mA   Voltage     Response time   ≤ 1.5 V DC   Switching requency     Switching requency   f   500 Hz     Response time   <1 ms	Light type		modulated visible red light, 640 nm
Angle of divergence   approx. 2 °     Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   MTTFg     MTTFg   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 : linterrupted     Electrical specifications   0     Operating voltage   Ug     No-load supply current   lo     Voltage dropp   20 PMP, complementary, short-circuit protected, open collectors     Switching type   light/dark on     Signal output   2 PMP, complementary, short-circuit protected, open collectors     Switching current   max. 30 V DC     Switching frequency   f     Moder op   Ud     Voltage drop   Ud     Voltage drop   Ud     Voltage drop   Vd     Switching frequency   f     Storage temperature   <1.5 V DC	Polarization filter		no
Optical face   frontal     Ambient light limit   30000 Lux     Functional safety related parameters   MTFG     MTTFG   920 a     Diagnostic Coverage (DC)   0 %     Indicator/Soperating means   0     Operation indicator   LED green, statically lit Power on     Function indicator   LED yelow: lights up when receiving the light beam ; flashes when failing short of the stability control; OFF when light beam is interrupted     Electrical specifications   0     Operating voltage   UB     Operating voltage   UB     Operating voltage   UB     Output   Signal output     Switching voltage   max. 30 V DC     No-load supply current   max. 30 V DC     Switching ournet   max. 100 mA     Voltage drop   Ud_d ≤ 1.5 V DC     Switching current   max. 100 mA     Voltage drop   Ud_d ≤ 1.5 V DC     Switching requency   f     Product standard   EN 60947-5-2     Ambient conditions   Ambient conditions     Ambient conditions   Ambient conditions     Ambient conditions   Provectoin     Ambient	Diameter of the light spot		approx. 300 mm at 8 m
Ambient light limit   30000 Lux     Functional safety related parameters   MTTF <sub>d</sub> 920 a     Mission Time (T <sub>h</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 stability control; OFF when light beam is interrupted     Electrical specifications   Operation 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   Operation indicator   LED yellow: light dark on     Signal output   2 PNP, complementary, short-circuit protected, open collectors     Switching requency   f< 500 Hz	• •		
Functional safety related parameters   MTTF <sub>a</sub> 920 a     Mission Time (T <sub>M</sub> )   20 a     Diagnostic Coverage (DC)   0 %     Indicators/operating means   Degreen, statically lit Power on     Function indicator   LED green, statically lit Power on     Function indicator   LED yellow: lights up when receiving the light beam : liashes when falling short of the stability control; OFF when light beam is interrupted     Electrical specifications   Operating voltage   UB     Output   0 30 V DC   No-load supply current     No-load supply current   ( > 20 mA     Output   Switching voltage   max. 30 V DC     Switching voltage   max. 30 V DC     Switching current   max. 30 V DC     Switching current   max. 30 V DC     Switching current   max. 100 mA     Voltage drop   Ud   ≤ 1.5 V DC     Switching requency   f   500 Hz     Response time   ≤ 1 ms   Conformity     Product standard   EN 60947-5-2   Ambient conditions     Ambient conditions   -   70 °C (-40 158 °F)     Mechanical specifications   Degree of protection   IP67 <t< td=""><td>Optical face</td><td></td><td></td></t<>	Optical face		
MTTFd   920 a     Mission Time (T <sub>N0</sub> )   20 a     Diagnostic Coverage (DC)   0 %     Indicators/operating means   0     Operation indicator   LED green, statically lit Power on     Function indicator   LED green, statically by when receiving the light beam ; flashes when failing short of the stability control; OFF when light beam is interrupted     Electrical specifications   Operating short of the stability control; OFF when light beam is interrupted     Switching type   light/dark on     Signal output   2 PNP, complementary, short-circuit protected, open collectors     Switching type   light/dark on     Signal output   2 FNP, complementary, short-circuit protected, open collectors     Switching trequency   f     Mosting frequency   f     Solo Hz   Response time     <1 ns	Ambient light limit		30000 Lux
Mission Time (T_M)20 aDiagnostic Coverage (DC)0 %Indicators/operating meansOperation indicatorFunction indicatorLED green, statically lit Power onFunction indicatorLED yellow: lights up when receiving the light beam ; flashes when falling short of the stability control; OFF when light beam is interruptedElectrical specifications0Operating voltageUB 0No-load supply current10 30 V DC 0No-load supply current2 PNP, complementary, short-circuit protected, open collectors Switching voltageSwitching voltagemax. 30 V DC max. 30 V DCSwitching currentmax. 30 V DC max. 30 V DCSwitching requencyfYou age fine $\leq 1.5 V DC$ Switching requencyfSouth fing currentmax. 100 mAVoltage dropUg $\leq 1.5 V DC$ Switching frequencyfProduct standardEN 60947-5-2Ambient temperature-25 60 °C (-13 140 °F) Storage temperature-40 70 °C (-40 158 °F)Mechanical specificationsDegree of protectionIP67 ConnectorOptical facePMMA ConnectorMassapprox. 10 gApprovals and certificates EAC conformityTR CU 020/2011 Protection classProtection classII, rated insulation voltage $\leq$ 250 V AC with pollution degree 1- 2 according to IEC 60664-1UL approvalCUL Sisted, Class 2 Power Source CCC approvalCCC approvalCCC approval / marking not required for products rated $\leq$	Functional safety related para	meters	
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 it similar short of the stability control; OFF when light beam it similar shore of the stabi	MTTF <sub>d</sub>		920 a
Indicators/operating means   Qperation indicator   LED green, statically lit Power on     Function indicator   LED yellow: lights up when receiving the light beam : flashes when failing short of the stability control; OFF when light beam is interrupted     Electrical specifications   Operating woltage   Up     Operating voltage   Up   10 30 V DC     No-load supply current   I0   <20 mA	Mission Time (T <sub>M</sub> )		20 a
Operation indicatorLED green, statically lit Power onFunction indicatorLED yellow: lights up when receiving the light beam ; flashes when failing short of the stability control; OFF when light beam is interruptedElectrical specifications0Operating voltageUBNo-load supply current10 $0 < < 20 \text{ mA}$ Output2 PNP, complementary, short-circuit protected, open collectors Switching voltageSwitching typelight/dark on Signal outputSwitching typeUdSwitching trauencyfSowitching requencyfSowitching frequencyfSowitching frequencyfSovitating frequencyfProduct standardEN 60947-5-2Ambient temperature-25< 60 °C (-13< 140 °F)	Diagnostic Coverage (DC)		0 %
Function indicator   LED yellow: lights up when receiving the light beam : flashes when failing short of the stability control; OFF when light beam is interrupted     Electrical specifications   Operating voltage   UB   10 30 V DC     No-load supply current   Ig   < 20 mA	Indicators/operating means		
when falling short of the stability control; OFF when light beam is interruptedElectrical specificationsOperating voltageUB10 30 V DCNo-load supply currentIght/dark onSignal output2 PNP, complementary, short-circuit protected, open collectorsSwitching voltagemax. 30 V DCSwitching currentmax. 100 mAVoltage dropUgSwitching frequencyf500 HzResponse time $\leq 1 \text{ ms}$ ConformityProduct standardEndotic timeAmbient temperature-25 60 °C (-13 140 °F)Storage temperature-40 70 °C (-40 158 °F)Mechanical specificationsDegree of protectionIP67Connection4-pin, M12 x 1 connectorMaterialHousingPCOptical facePMMAConnectorplasticMassapprox. 10 gApprovals and certificatesEAC conformityTR CU 020/2011Protection classII, rated insulation voltage $\leq 250$ V AC with pollution degree 1- 2 according to IEC 60664-1UL approvalCULus Listed, Class 2 Power SourceCCC approvalCCC approval / marking not required for products rated $\leq 36$ V	Operation indicator		LED green, statically lit Power on
Operating voltage $U_B$ 1030 V DCNo-load supply current $I_0$ < 20 mA	Function indicator		when falling short of the stability control; OFF when light beam is
No-load supply currentI0< 20 mAOutputIight/dark onSwitching typeIight/dark onSignal output2 PNP, complementary, short-circuit protected, open collectorsSwitching voltagemax. 30 V DCSwitching currentmax. 100 mAVoltage dropUdSwitching frequencyfSolon HzResponse time $\leq 1 \text{ ns}$ ConformityProduct standardEN 60947-5-2Ambient temperature-25 60 °C (-13 140 °F)Storage temperature-40 70 °C (-40 158 °F)Mechanical specificationsDegree of protectionIP67Connection4-pin, M12 x 1 connectorMaterialPCHousingPCOptical facePMMAConnectorplasticMassapprox. 10 gApprovals and certificatesII, rated insulation voltage $\leq 250$ V AC with pollution degree 1- $2$ according to IEC 60664-1UL approvalCULus Listed, Class 2 Power SourceCCC approvalCCC approval / marking not required for products rated $\leq 36$ V	Electrical specifications		
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 <sub>d</sub> ≤ 1.5 V DC     Switching frequency   f     Source for the system   ≤ 1 ms     Conformity   Product standard     Product standard   EN 60947-5-2     Ambient conditions   Ambient conditions     Ambient temperature   -25 60 °C (-13 140 °F)     Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   Degree of protection     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   PC     Optical face   PMMA     Connector   plastic     Mass   approx.10 g     Approvals and certificates   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	Operating voltage	UB	10 30 V DC
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 <sub>d</sub> Switching frequency   f     Store   500 Hz     Response time   ≤ 1 ms     Conformity   Product standard     Product standard   EN 60947-5-2     Ambient conditions   -25 60 °C (-13 140 °F)     Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   Degree of protection     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   Housing     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx.10 g     Approvals and certificates   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	No-load supply current	I <sub>0</sub>	< 20 mA
Signal output2 PNP, complementary, short-circuit protected, open collectorsSwitching voltagemax. 30 V DCSwitching currentmax. 100 mAVoltage dropUdSwitching frequencyf500 HzResponse time $\leq 1 \text{ ms}$ ConformityProduct standardEN 60947-5-2Ambient temperature-25 60 °C (-13 140 °F)Storage temperature-25 60 °C (-40 158 °F)Mechanical specificationsDegree of protectionDegree of protectionIP67Connection4-pin, M12 x 1 connectorMaterialMAHousingPCOptical facePMMAConnectorplasticMassapprox. 10 gApprovals and certificatesEAC conformityTR CU 020/2011Protection classII, rated insulation voltage $\leq 250$ V AC with pollution degree 1- $2 \text{ according to IEC 60664-1}$ UL approvalcULus Listed, Class 2 Power SourceCCC approvalCCC approval / marking not required for products rated $\leq 36$ V	Output		
Switching voltagemax. 30 V DCSwitching currentmax. 100 mAVoltage drop $U_d \leq 1.5$ V DCSwitching frequencyf500 HzResponse time $\leq 1$ msConformityProduct standardEN 60947-5-2Ambient conditionsAmbient temperature-25 60 °C (-13 140 °F)Storage temperature-40 70 °C (-40 158 °F)Mechanical specificationsDegree of protectionIP67Connection4-pin, M12 x 1 connectorMaterialHousingPCOptical facePMMAConnectorplasticMassapprox. 10 gApprovals and certificatesEAC conformityTR CU 020/2011Protection classII, rated insulation voltage $\leq 250$ V AC with pollution degree 1- $2$ according to IEC 60664-1UL approvalcULus Listed, Class 2 Power SourceCCC approvalCCC approval / marking not required for products rated $\leq 36$ V	Switching type		light/dark on
Switching currentmax. 100 mAVoltage drop $U_d \leq 1.5 V DC$ Switching frequencyfSolo HzResponse time $\leq 1 ms$ ConformityProduct standardEN 60947-5-2Ambient conditionsAmbient temperature $-25 60 °C (-13 140 °F)$ Storage temperature $-40 70 °C (-40 158 °F)$ Mechanical specificationsDegree of protectionIP67Connection4-pin, M12 x 1 connectorMaterialHousingHousingPCOptical facePIMAAConnectorplasticMassapprox. 10 gApprovals and certificatesEAC conformityTR CU 020/2011Protection classII, rated insulation voltage $\leq 250 V AC$ with pollution degree 1- $2 according to IEC 60664-1$ UL approvalcULus Listed, Class 2 Power SourceCCC approvalCCC approval / marking not required for products rated $\leq 36 V$	Signal output		2 PNP, complementary, short-circuit protected, open collectors
Voltage drop $U_d$ $\leq 1.5 \text{ V DC}$ Switching frequencyf500 HzResponse time $\leq 1 \text{ ms}$ ConformityProduct standardEN 60947-5-2Ambient conditions-25 60 °C (-13 140 °F)Ambient temperature-25 60 °C (-40 158 °F)Mechanical specifications-70 °C (-40 158 °F)Degree of protectionIP67Connection4-pin, M12 x 1 connectorMaterial	Switching voltage		max. 30 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   -40 70 °C (-40 158 °F)     Mechanical specifications     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   Housing     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   EAC conformity     FAC conformity   TR CU 020/2011     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	Switching current		max. 100 mA
Response time   ≤1 ms     Conformity   Product standard     Product standard   EN 60947-5-2     Ambient conditions   Ambient temperature     Ambient temperature   -25 60 °C (-13 140 °F)     Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   Degree of protection     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   Housing     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Voltage drop	U <sub>d</sub>	≤ 1.5 V DC
Conformity   Product standard   EN 60947-5-2     Ambient conditions   Ambient temperature   -25 60 °C (-13 140 °F)     Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   Degree of protection     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   Housing     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Switching frequency	f	500 Hz
Product standard   EN 60947-5-2     Ambient conditions   Ambient temperature     Ambient temperature   -25 60 °C (-13 140 °F)     Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   Degree of protection     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   Housing     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Response time		≤ 1 ms
Ambient conditions     Ambient temperature   -25 60 °C (-13 140 °F)     Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   Degree of protection     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   Housing     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Conformity		
Ambient temperature $-25 \dots 60 ^{\circ}\text{C} (-13 \dots 140 ^{\circ}\text{F})$ Storage temperature $-40 \dots 70 ^{\circ}\text{C} (-40 \dots 158 ^{\circ}\text{F})$ Mechanical specificationsDegree of protectionIP67Connection $4$ -pin, M12 x 1 connectorMaterialHousingHousingPCOptical facePMMAConnectorplasticMassapprox. 10 gApprovals and certificatesEAC conformityTR CU 020/2011Protection classII, rated insulation voltage $\leq 250 ^{\circ}$ AC with pollution degree 1- $2 ^{\circ}$ according to IEC 60664-1UL approvalCULus Listed, Class 2 Power SourceCCC approvalCCC approval / marking not required for products rated $\leq 36 ^{\circ}$	Product standard		EN 60947-5-2
Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   IP67     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   IP67     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Ambient conditions		
Storage temperature   -40 70 °C (-40 158 °F)     Mechanical specifications   IP67     Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   IP67     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Ambient temperature		-25 60 °C (-13 140 °F)
Mechanical specifications   IP67     Degree of protection   4-pin, M12 x 1 connector     Material   PC     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   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	Storage temperature		
Degree of protection   IP67     Connection   4-pin, M12 x 1 connector     Material   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   EAC conformity     FAC conformity   TR CU 020/2011     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			
Connection   4-pin, M12 x 1 connector     Material   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   EAC conformity     EAC conformity   TR CU 020/2011     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	-		IP67
Material     Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   EAC conformity     EAC conformity   TR CU 020/2011     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			4-pin. M12 x 1 connector
Housing   PC     Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   EAC conformity     EAC conformity   TR CU 020/2011     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			
Optical face   PMMA     Connector   plastic     Mass   approx. 10 g     Approvals and certificates   EAC conformity     EAC conformity   TR CU 020/2011     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			PC
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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     Curves/Diagrams			TR CU 020/2011
UL approval   cULus Listed, Class 2 Power Source     CCC approval   CCC approval / marking not required for products rated ≤36 V     Curves/Diagrams			II, rated insulation voltage $\leq$ 250 V AC with pollution degree 1-
CCC approval   CCC approval / marking not required for products rated ≤36 V     Curves/Diagrams	UL approval		
Curves/Diagrams			
Characteristic response ourse GIV18-6	Curves/Diagrams		
	Charaotoriati	0 100	GLV18-6



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

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# **PEPPERL+FUCHS**

## Accessories

CPZ18B03 Mounting Bracket with swivel nut

**BF 18** Mounting flange, 18 mm

BF 18-F Plastic mounting adapter, 18 mm

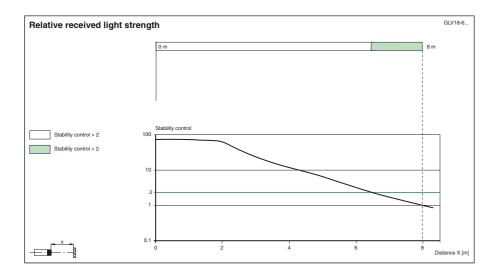
# **BF 5-30** Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm

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



Pepperl+Fuchs Group www.pepperl-fuchs.com

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