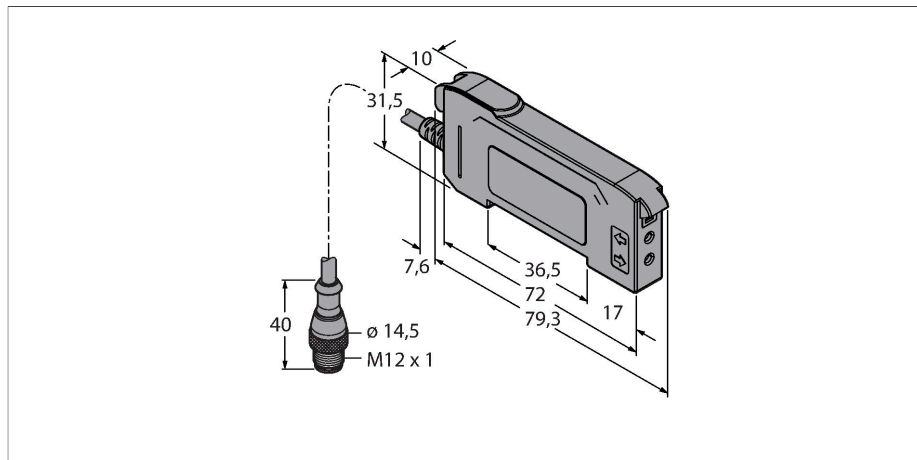


DF-G1-KS-Q5

Photoelectric Sensor – Photoelectric Sensor for Plastic Fibers



Technical data

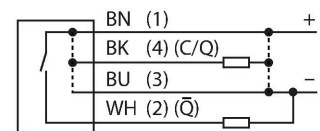
Type	DF-G1-KS-Q5
ID no.	3019524
Optical data	
Function	Photoelectric sensor for plastic fibers
Light type	Red
Wavelength	660 nm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 40 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Communication protocol	IO-Link
Output function	NO/NC, PNP
Switching frequency	5 kHz
Readiness delay	≤ 500 ms
Response time typical	< 0.2 ms
Setting option	Push Button
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Communication mode	COM 2 (38.4 kBaud)
Process data width	16 bit
Frame type	Type_2_2
Minimum cycle time	2 ms
Function Pin 4	IO-Link
Function Pin 2	DI



Features

- Cable with male end M12x1
- Visible red light
- Programming via teach cable or multi-function button
- Operating voltage: 10...30 VDC
- IO-Link
- 2 × PNP output, changeover contact
- Light/dark operation

Wiring diagram



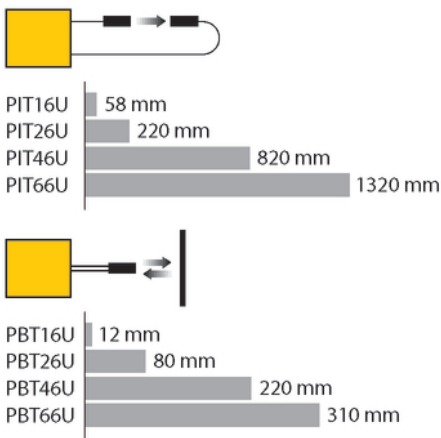
Functional principle

Glass or fiber optics are the optimum choice for high temperature or space restricted applications. Fiber optics transfer the light from the sensor to a remote object. Individual fiber optics are used for opposed mode sensing, whereas bifurcated fiber optics are suited for diffuse mode operation.

Technical data

Maximum cable length	20 m
Profile support	Smart Sensor Profil
Included in the SIDI GSDML	Yes
Mechanical data	
Design	Rectangular, DF-G1
Dimensions	79.3 x 10 x 33 mm
Housing material	Plastic, Thermoplastic material, Black
Electrical connection	Cable with connector, M12 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-10...+55 °C
Relative humidity	0...90 %
Protection class	IP50
Special features	keep/defer Crosstalk protection
Switching state	LED, Yellow
Excess gain indication	Dual Digital Displays
Tests/approvals	
Approvals	CE, cULus listed

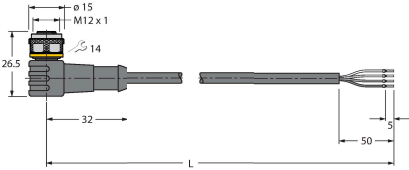
Excess Gain Curve



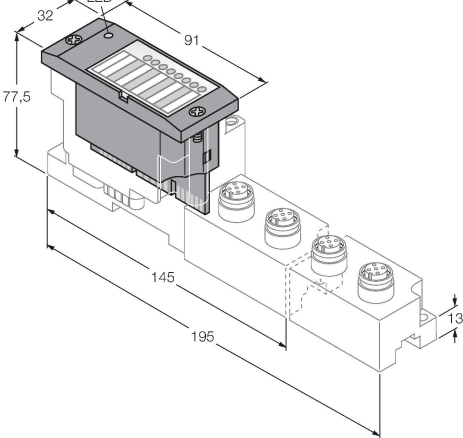
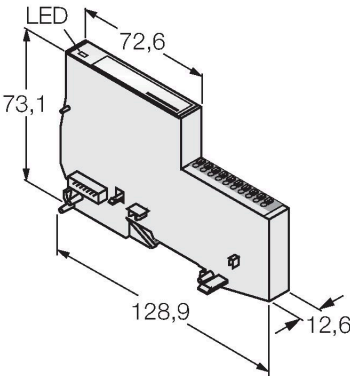
Accessories

DIN-35-70	3026604	DIN-35-105	3030470
DIN rail, width 35 mm, length 70 mm		DIN rail, width 35 mm, length 105 mm	
DIN-35-140	3026605		
DIN rail, width 35 mm, length 140 mm			

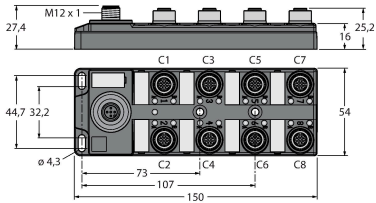
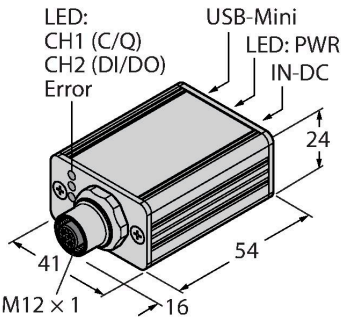
Accessories

Dimension drawing	Type	ID no.	
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

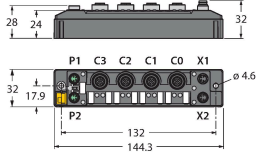
Accessories

Dimension drawing	Type	ID no.	
	BL67-4IOL	6827386	4-channel IO-Link Master module for the modular BL67 I/O-system
	BL20-E-4IOL	6827385	IO-Link master module for the modular BL20 I/O system, 4-channel

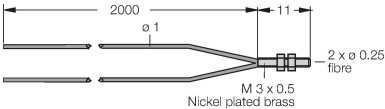
Dimension drawing	Type	ID no.	
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port



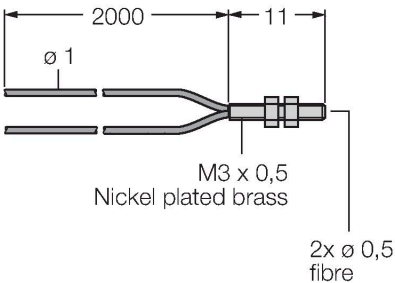
TBIL-M1-16DXP	6814102	16-channel I/O-hub for the connection of 16 digital PNP signals to an IO-Link master (input/output freely selectable per channel)
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TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A
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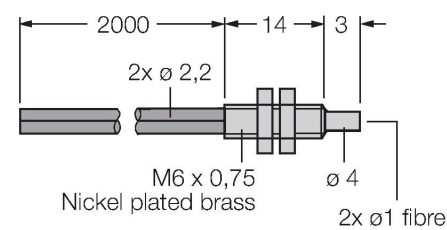


PBT16U	3042822	Plastic fiber-optic sensor, operating mode: Diffuse mode, threaded sleeve M3 x 0.75 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C
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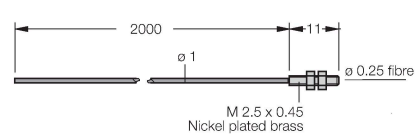
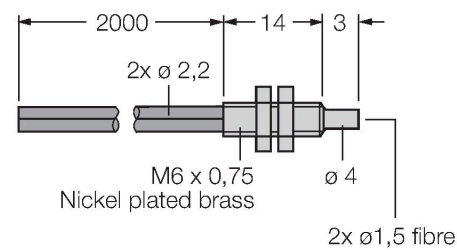


PBT26U	3026080	Plastic fiber, sensing mode: Diffuse mode, threaded bush M3 x 0.75 mm, preassembled wire without end tip, polyethylene jacket, ambient temperatures -30 °C...+70 °C
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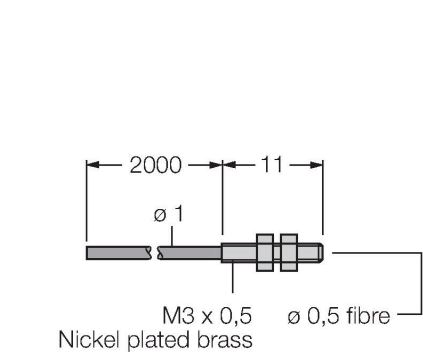
Dimension drawing	Type	ID no.	
	PBT46U	3025967	Plastic fiber-optic sensor, operating mode: Diffuse mode, threaded sleeve M3 x 0.75 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C



PBT66U	3039982	Plastic fiber-optic sensor, operating mode: Diffuse mode, threaded sleeve M6 x 0.75 mm, pre-assembled wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C
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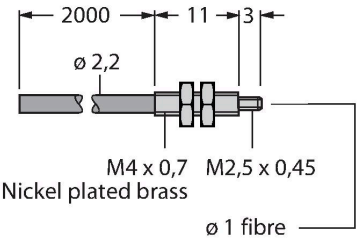


PIT16U	3039983	Plastic fiber-optic sensor, operating mode: Opposed mode, threaded sleeve M3 x 0.5 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C
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PIT26U	3026079	Plastic fiber, sensing mode: Opposed mode, threaded bush M3 x 0.5 mm, preassembled wire without end tip, polyethylene jacket, ambient temperatures -30 °C...+70 °C
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Dimension drawing	Type	ID no.	
	PIT46U	3026034	Plastic fiber-optic sensor, operating mode: Opposed mode, threaded sleeve M3 x 0.5 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C



PIT66U	3039899
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Plastic fiber-optic sensor, operating mode: Opposed mode, threaded sleeve M3 x 0.5 mm, field wireable wire without end tip, polyethylene sheath, ambient temperatures -30 °C...+70 °C

