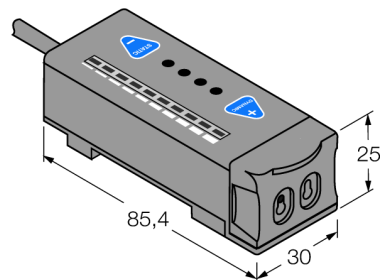


Photoelectric Sensor

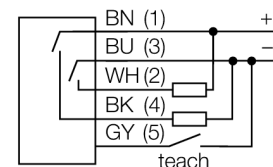
Photoelectric Sensor for Plastic Fibers

R55FPB W/30



- Cable, PVC, 9 m, 5-wire
- Protection class IP67
- Teach button
- 10-segment bargraph
- Switch-off delay (no delay, 20 ms, 40 ms)
- Blue emitter LED
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring Diagram



Functional principle

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

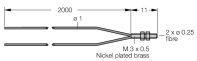
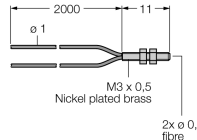
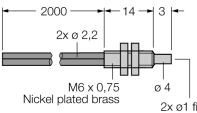
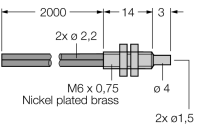
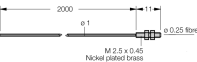
Type	R55FPB W/30
ID	3058025
Optical data	
Function	Fiber optic sensor
Operating mode	Plastic fiber
Fiber-optic type	plastic
Light type	Blue
Wavelength	475 nm
Electrical data	
Operating voltage U_s	10...30 VDC
Residual ripple	< 10 % U_s
No-load current I_o	≤ 70 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	10 kHz
Readiness delay	≤ 100 ms
Response time typical	< 0.05 ms
Setting option	Push Button Remote Teach
Mechanical data	
Design	Rectangular, R55F
Housing material	Plastic, Thermoplastic material, Black
Electrical connection	Cable, 9 m, PVC
Number of cores	5
Core cross-section	0.34 mm ²
Ambient temperature	-10...+55 °C
Relative humidity	0...90%
Protection class	IP67
Special features	
	keep/defer Wash down
Power-on indication	LED, Green
Switching state	LED, Green
Excess gain indication	Bargraph, green

Tests/approvals	
MTTF	178 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

Accessories

Type code	Ident no.		Dimension drawing
SMBR55F01	3067104	Mounting panel, PBT, black, for R55F series, wall mounting	
SMBR55FRA	3058809	Mounting bracket, 19-ga. stainless steel, for D10, DF-G1 and R55F series, lateral wall mounting	
DIN-35-70	3026604	DIN rail, width 35 mm, length 70 mm	
DIN-35-105	3030470	DIN rail, width 35 mm, length 105 mm	
DIN-35-140	3026605	DIN rail, width 35 mm, length 140 mm	

Function accessories

Type code	Ident no.		Dimension drawing
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	 2000 11 1 $\phi 1$ M3 x 0.5 Nickel plated brass 2 x $\phi 0.25$ fibre
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	 2000 11 1 $\phi 1$ M3 x 0.5 Nickel plated brass 2 x $\phi 0.5$ fibre
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	 2000 14 3 2x $\phi 2,2$ M6 x 0,75 Nickel plated brass $\phi 4$ 2x $\phi 1,5$ fibre
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	 2000 14 3 2x $\phi 2,2$ M6 x 0,75 Nickel plated brass $\phi 4$ 2x $\phi 1,5$ fibre
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	 2000 11 1 $\phi 1$ M 2,5 x 0,45 Nickel plated brass $\phi 0,25$ fibre

Function accessories

Type code	Ident no.		Dimension drawing
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	
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	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	