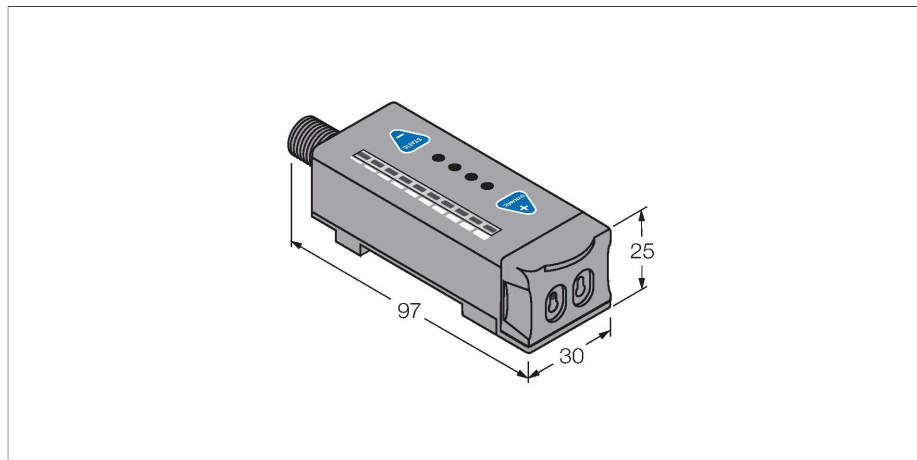


# R55FVBQ

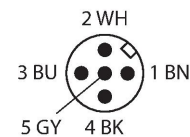
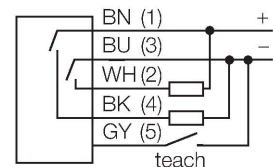
## Photoelectric Sensor – Photoelectric Sensor for Glass Fibers



### Features

- Male M12 × 1, 5-pin
- 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



### Technical data

Type	R55FVBQ
ID	3058014
<b>Optical data</b>	
Function	Fiber optic sensor
Operating mode	Glass fiber
Fiber-optic type	glass
Light type	Blue
Wavelength	475 nm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
No-load current	≤ 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
<b>Mechanical data</b>	
Design	Rectangular, R55F
Dimensions	97 x 30 x 25 mm
Housing material	Plastic, Thermoplastic material, Black
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-10...+55 °C

### 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.

## Technical data

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

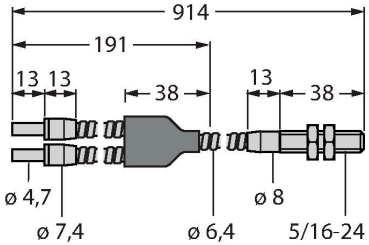
## Accessories

<b>SMBR55F01</b>	3067104	<b>SMBR55FRA</b>	3058809
	Mounting panel, PBT, black, for R55F series, wall mounting		Mounting bracket, 19-ga. stainless steel, for D10, DF-G1 and R55F series, lateral wall mounting
<b>DIN-35-70</b>	3026604	<b>DIN-35-105</b>	3030470
	DIN rail, width 35 mm, length 70 mm		DIN rail, width 35 mm, length 105 mm
<b>DIN-35-140</b>	3026605		
	DIN rail, width 35 mm, length 140 mm		

## Accessories

Dimension drawing	Type	ID	
	WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>

Accessories

Dimension drawing	Type	ID	
 <p>Technical drawing of the BT23S sensor. It shows a side view of a cylindrical device with a central sensing element. Dimensions are provided in millimeters: total length 914, distance from left end to sensing element 191, distance from sensing element to right end 38, and distance from right end to mounting flange 38. Diameters are indicated as <math>\varnothing 4,7</math>, <math>\varnothing 7,4</math>, <math>\varnothing 6,4</math>, and <math>\varnothing 8</math>. The mounting flange is labeled 5/16-24. Two 13mm segments are shown on the left side.</p>	BT23S	3017276	Glass fiber, sensing mode: Diffuse mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140... +250 °C

IT23S	3017355	Glass fiber, sensing mode: Opposed mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140... +250 °C
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