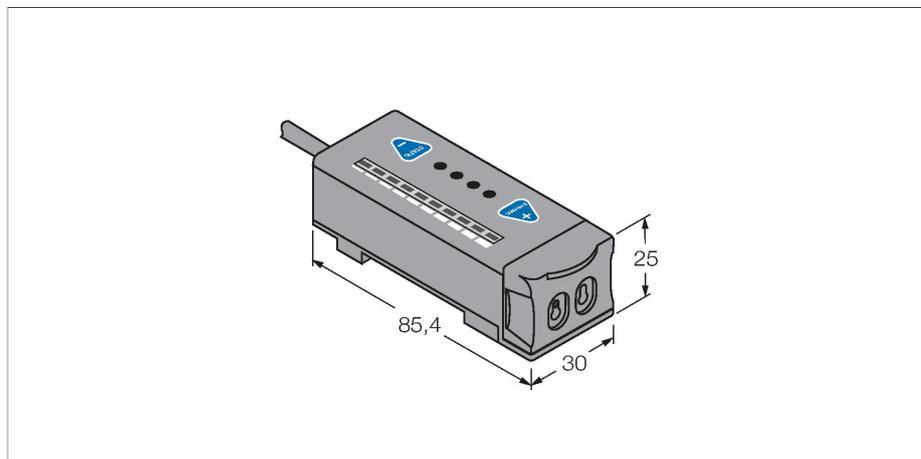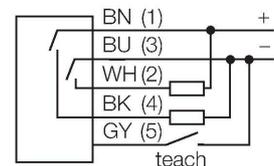# R55FVB W/30
Photoelectric Sensor –   Photoelectric Sensor for Glass Fibers

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Features

- 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

BN (1)
BU (3)
WH (2)
BK (4)
GY (5)
teach
+
−

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

Type	R55FVB W/30
ID no.	3058013
Optical data	
Function	Photoelectric sensor for glass fibers
Fiber-optic type	glass
Light type	Blue
Wavelength	475 nm
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	< 10 % U_{ss}
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
Mechanical data	
Design	Rectangular, R55F
Dimensions	85.4 x 30 x 25 mm
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

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R55FVB W/30 | 05-05-2021 22-09 | Technical modifications reserved

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

Accessories

SMBR55F01	3067104	SMBR55FRA	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
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.	
	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
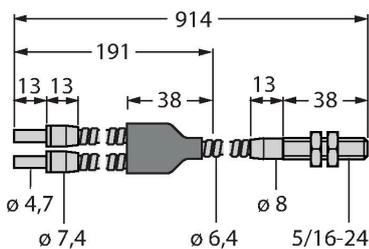
Dimension drawing	Type	ID no.	
	IT23S	3017355	Glass fiber, sensing mode: Opposed mode, threaded sleeve (brass), bundle diameter 3.2 mm, flexible stainless steel jacket, ambient temperatures -140…+250 °C

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