

S18-2VPFF30-Q8

Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



Technical data

Type	S18-2VPFF30-Q8
ID	3091068
Optical data	
Function	Proximity switch
Operating mode	Background suppression, non-adjustable
Light type	Red
Wavelength	624 nm
Range	1...30 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
No-load current	≤ 16 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	Complementary contact, PNP
Readiness delay	≤ 100 ms
Response time typical	< 1.5 ms
Mechanical data	
Design	Tube, S18
Dimensions	Ø 18 x 73 mm
Housing material	Plastic, Thermoplastic material
Lens	Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP67

Features

- Male M12 × 1, 5-pin
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Visible red LED light
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring diagram



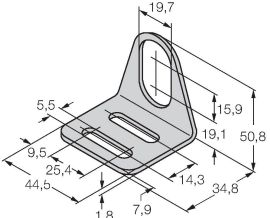
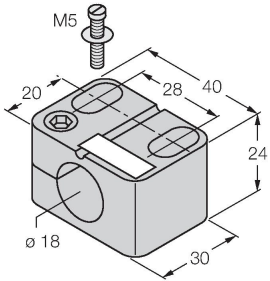
Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target's position and the optical structure of the sensor determine which receiver element gets the most light. The sensor electronics then determines whether the reflecting target is in or outside the measuring range. These sensors come with a fixed cut-off point.

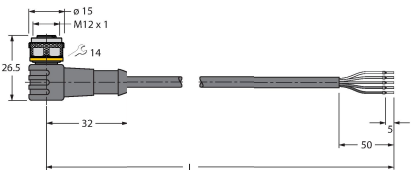
Technical data

Power-on indication	LED, Green
Switching state	2 × LEDs, Yellow
Error indication	Flashing
Excess gain indication	LED
Alarm display	Flashing
Tests/approvals	
Approvals	CE

Accessories

MW-18	6945004	BST-18N	6947215
	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)		Mounting clamp for threaded barrel sensors, without dead-stop; material: PA6

Accessories

Dimension drawing	Type	ID	
	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 www.turck.com
	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 www.turck.com
	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

Dimension drawing	Type	ID	
	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