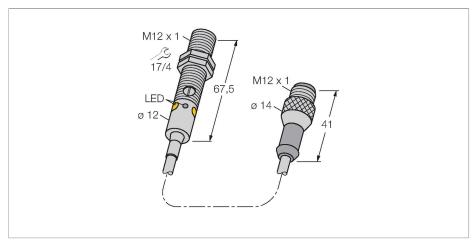


M12PFF25Q5 Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



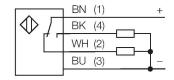
Technical data

Туре	M12PFF25Q5	
ID	3078244	
Optical data		
Function	Proximity switch	
Operating mode	Background suppression, non-adjustable	
Light type	Red	
Wavelength	680 nm	
Range	025 mm	
Electrical data		
Operating voltage	1030 VDC	
Residual ripple	< 10 % U _{ss}	
DC rated operational current	≤ 100 mA	
No-load current	≤ 20 mA	
Short-circuit protection	yes	
Reverse polarity protection	yes	
Output function	Complementary contact, PNP	
Switching frequency	≤ 1000 Hz	
Readiness delay	≤ 100 ms	
Response time typical	< 0.5 ms	
Mechanical data		
Design	Tube, M12	
Dimensions	Ø 12 x 67.5 mm	
Housing material	Metal, Nickel-plated brass, Nickel Plated	
Lens	plastic, PMMA	
Electrical connection	Cable with connector, M12 × 1, 0.15 m, PVC	

Features

- Cable with male end M12 × 1, 4-pin, PVC, 150 mm
- Protection classes IP67 / IP68
- Metal housing
- ■LED all-round visible
- ■Indication of insufficient excess gain
- Operating voltage: 10...30 VDC
- PNP switching output, complementary contact

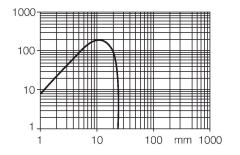
Wiring diagram



Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target position and the photoelectric structure of the sensor determine which of the receiving elements receives the most light. The sensor electronics determine whether the reflecting object is within or outside the measuring range. These sensors come with a fixed cut-off point.

Excess Gain Curve



3027635

available, see www.turck.com

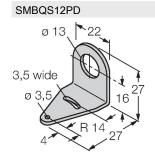
Technical data

Number of cores	4		
Ambient temperature	-20+60 °C		
Protection class	IP67 IP68		
Special features	Encapsulated Wash down		
Power-on indication	LED, Green		
Switching state	LED, Yellow		
Error indication	LED, green, Flashing		
Excess gain indication	LED, yellow, flashing		
Tests/approvals			
MTTF	46 years acc. to SN 29500 (Ed. 99) 40 °C		
Approvals	CE		

Accessories



3059606



Mounting bracket; material VA 1.4401, for Q12 & M12 series

Accessories

Dimension drawing	Туре	ID	
M12x1 e15 1/5 14	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



Dimension drawing

Type

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