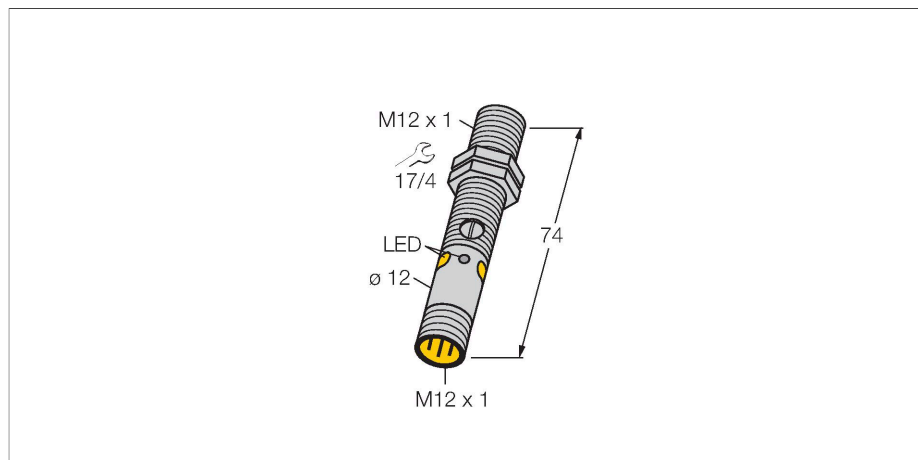


M12EQ8

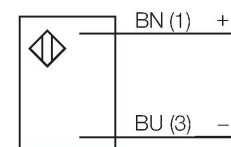
Photoelectric Sensor – Opposed Mode Sensor (Emitter)



Features

- Male M12 × 1, 4-pin
- Protection classes IP67 / IP68
- Metal housing
- LED all-round visible
- Operating voltage: 10...30 VDC

Wiring diagram



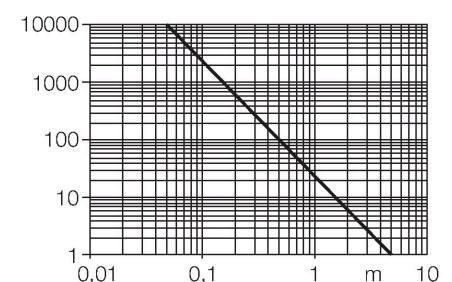
Technical data

Type	M12EQ8
ID no.	3077203
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	Red
Wavelength	660 nm
Range	0...5000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
No-load current	≤ 20 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 100 ms
Response time typical	< 0.625 ms
Setting option	Potentiometer
Mechanical data	
Design	Threaded barrel, M12
Dimensions	Ø 12 x 74 mm
Housing material	Metal, Nickel-plated brass, Nickel-plated
Lens	plastic, PMMA
Electrical connection	Connectors, M12 × 1, PVC
Number of cores	4
Ambient temperature	-20...+60 °C
Protection class	IP67 IP68

Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

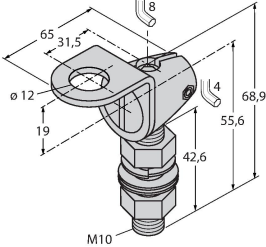
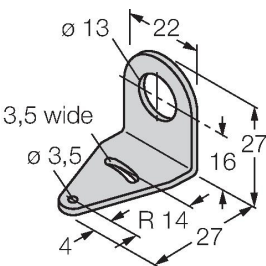
Excess Gain Curve



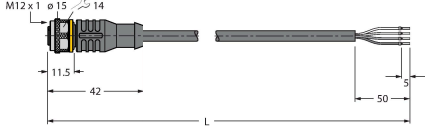
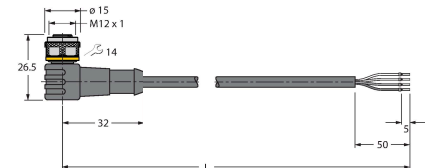
Technical data

Special features	Encapsulated Wash down
Power-on indication	LED, Green
Error indication	LED, green, Flashing
Excess gain indication	LED
Tests/approvals	
MTTF	46 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

Accessories

SMB12FAM10	3011221	SMB12MM	3027635
	Mounting bracket, stainless steel, for M12, M10 x 1.5 thread		Mounting bracket, stainless steel, for M12
SMBQS12PD	3059606		
	Mounting bracket; material VA 1.4401, for Q12 & M12 series		

Accessories

Dimension drawing	Type	ID no.	
	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
	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