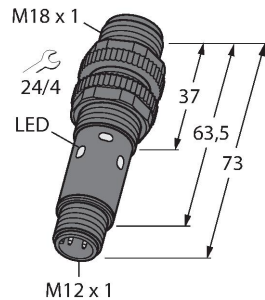


S18-2NAEL-Q8

Photoelectric Sensor – Opposed Mode Sensor (Emitter)



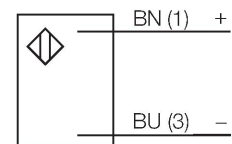
Technical data

Type	S18-2NAEL-Q8
ID	3042192
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	Red
Wavelength	645 nm
Range	0...25000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
No-load current	≤ 17 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
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
Power-on indication	LED, Green
Excess gain indication	LED

Features

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

Wiring diagram



Functional principle

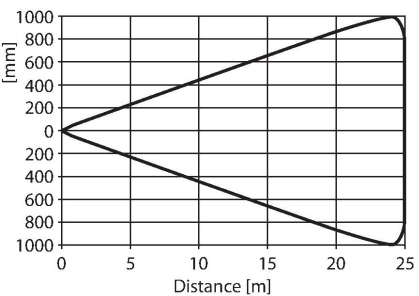
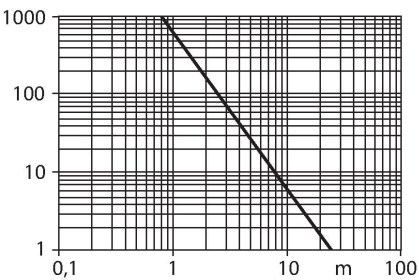
Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque objects. The excellent light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

Excess gain curve
Excess gain in relation to distance

Technical data

Tests/approvals	
Approvals	CE

Excess Gain Curve



Accessories

MW-186945004

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BST-18N6947215

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

Dimension drawing	Type	ID	
	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