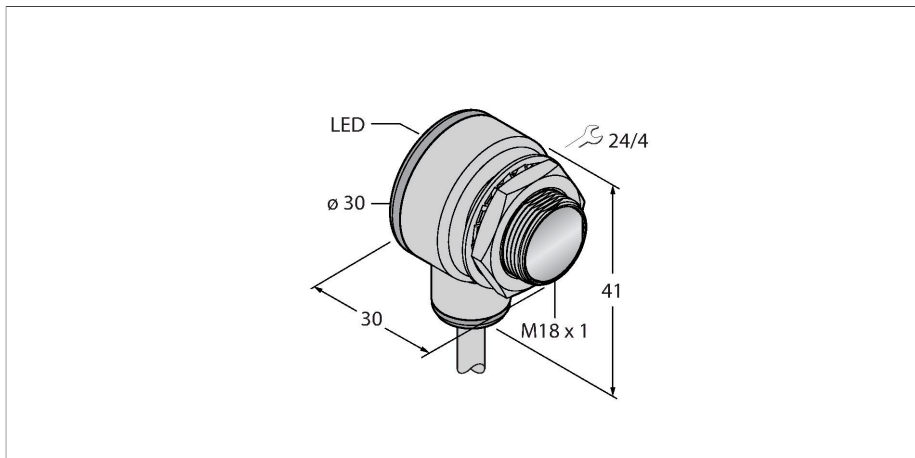


TM186E

Photoelectric Sensor – Opposed Mode Sensor (Emitter)



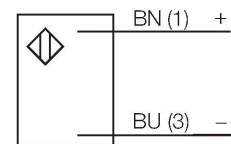
Technical data

Type	TM186E
ID	3042006
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	Red
Wavelength	625 nm
Range	0...20000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
No-load current	≤ 25 mA
Readiness delay	≤ 100 ms
Response time typical	< 1.5 ms
Mechanical data	
Design	Tube, TM18
Dimensions	Ø 18 x 30 x 30 x 41 mm
Housing material	Metal, Zinc Die-Cast with Nickel-Plating
Lens	plastic, Polycarbonate
Electrical connection	Cable, 2 m, PVC
Number of cores	2
Core cross-section	0.5 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67
Special features	Encapsulated Wash down
Power-on indication	LED, Green

Features

- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Metal housing
- Operating voltage: 10...30 VDC

Wiring diagram



Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to 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. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.

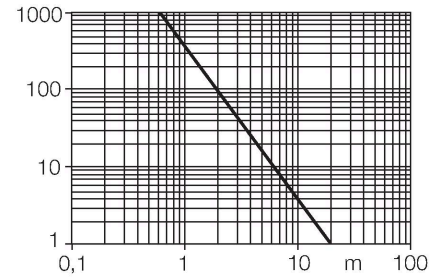
Excess gain curve
Excess gain in relation to the distance

Technical data

Excess gain indication LED

Tests/approvals

Approvals CE, UL



Accessories

SMBT18Y

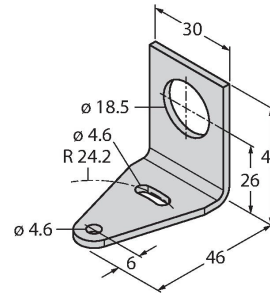
3069554

mounting bracket, rectangular, for sensors with 18 mm thread, 15.3 mm cable feedthrough or M12 x 1 male

SMB18A

3033200

Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread



SMBAMS18P

3073134

Mounting bracket, stainless steel, for sensors with 18 mm thread

