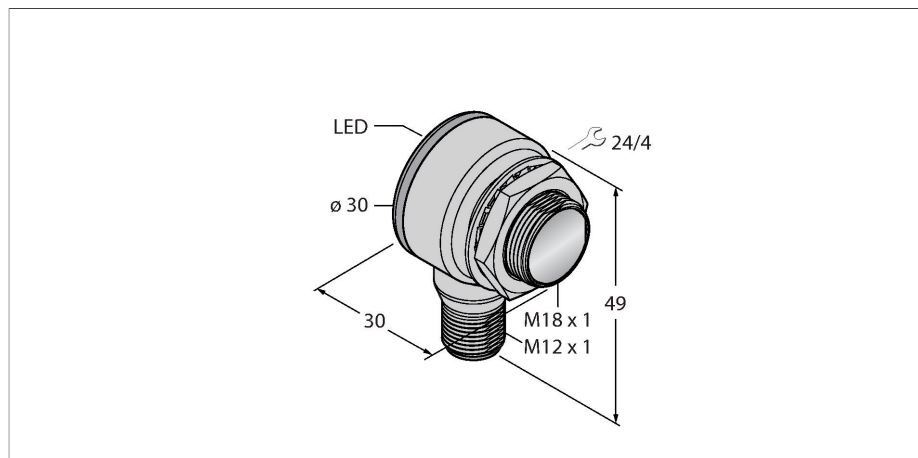


# TM186EQ8

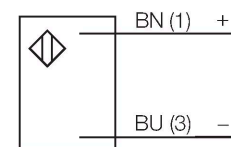
## Photoelectric Sensor – Opposed Mode Sensor (Emitter)



### Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C
- Metal housing
- Operating voltage: 10...30 VDC

### Wiring diagram



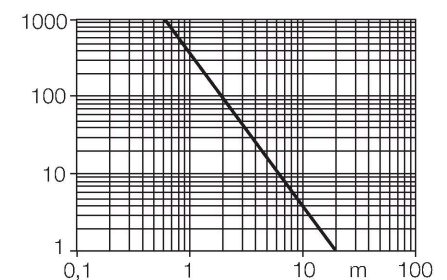
### Technical data

Type	TM186EQ8
ID	3042007
<b>Optical data</b>	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	Red
Wavelength	625 nm
Range	0...20000 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
No-load current	≤ 25 mA
Readiness delay	≤ 100 ms
Response time typical	< 1.5 ms
<b>Mechanical data</b>	
Design	Tube, TM18
Dimensions	Ø 18 x 30 x 30 x 49 mm
Housing material	Metal, Zinc Die-Cast with Nickel-Plating
Lens	plastic, Polycarbonate
Electrical connection	Connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP67 IP69
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Excess gain indication	LED

### 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

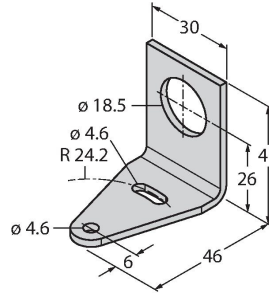
Tests/approvals

Approvals CE, UL

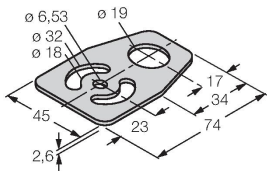
Accessories

**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



Accessories

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 <a href="http://www.turck.com">www.turck.com</a>
	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 <a href="http://www.turck.com">www.turck.com</a>