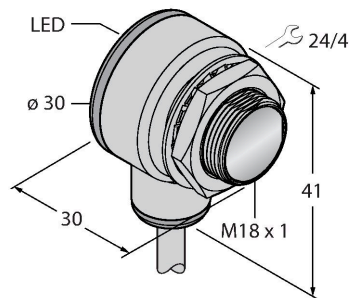


TM18AP6R

Photoelectric Sensor – Opposed Mode Sensor (Receiver)



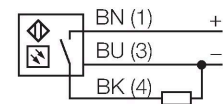
Technical data

Type	TM18AP6R
ID no.	3042008
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...20000 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 25 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	NO contact, light operation, PNP
Switching frequency	≤ 440 Hz
Readiness delay	≤ 100 ms
Response time typical	< 1.5 ms
Mechanical data	
Design	Rectangular with thread, 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	3
Core cross-section	0.5 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67
Special features	Encapsulated Wash down

Features

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

Wiring diagram

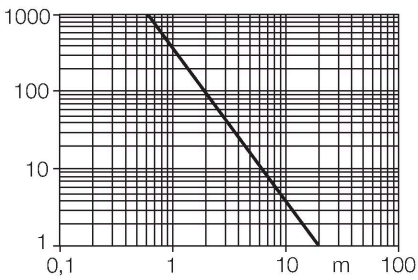


Functional principle

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
Excess gain in relation to the distance

Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, UL



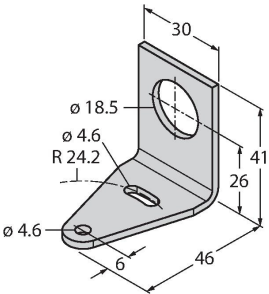
Accessories

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

