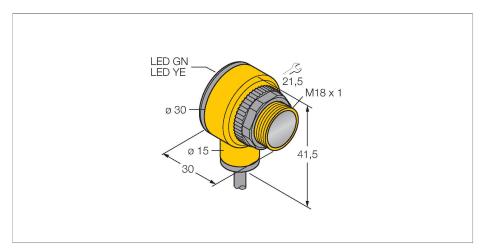


T18RP6R Photoelectric Sensor – Opposed Mode Sensor (Receiver)



Technical data

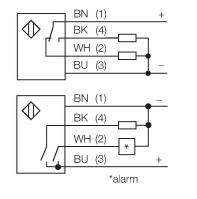
ID 3044381 Optical data Function Operating mode Receiver Range 020000 mm Electrical data Operating voltage Operating voltage 1030 VDC No-load current ≤ 25 mA Short-circuit protection yes / Cyclic Reverse polarity protection yes Output function Connection programmable, PNP Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Design Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down Power-on indication LED, Green	Туре	T18RP6R
Function Opposed mode sensor Operating mode Receiver Range 020000 mm Electrical data Operating voltage 1030 VDC No-load current ≤ 25 mA Short-circuit protection yes / Cyclic Reverse polarity protection yes Output function Connection programmable, PNP Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Design Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	ID	3044381
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Short-circuit protection yes / Cyclic Reverse polarity protection yes Output function Connection programmable, PNP Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Operating voltage	1030 VDC
Reverse polarity protection yes Output function Connection programmable, PNP Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	No-load current	≤ 25 mA
Output function Connection programmable, PNP Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Short-circuit protection	yes / Cyclic
Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Tube, T18 Design Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Reverse polarity protection	yes
Readiness delay ≤ 100 ms Overcurrent release > 220 mA Mechanical data Tube, T18 Design Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Output function	Connection programmable, PNP
Overcurrent release > 220 mA Mechanical data Tube, T18 Design Tube, T18 Dimensions 30 x 30 x 41.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Switching frequency	≤ 160 Hz
Mechanical dataDesignTube, T18Dimensions30 x 30 x 41.5 mmHousing materialPlastic, PBTLensplastic, LexanElectrical connectionCable, 2 m, PVCNumber of cores4Core cross-section0.5 mm²Ambient temperature-40+70 °CProtection classIP67Special featuresWash down	Readiness delay	≤ 100 ms
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Housing material Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section Ambient temperature Plastic, PBT plastic, Lexan Cable, 2 m, PVC 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Design	Tube, T18
Lens plastic, Lexan Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Dimensions	30 x 30 x 41.5 mm
Electrical connection Cable, 2 m, PVC Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Housing material	Plastic, PBT
Number of cores 4 Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Lens	plastic, Lexan
Core cross-section 0.5 mm² Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Electrical connection	Cable, 2 m, PVC
Ambient temperature -40+70 °C Protection class IP67 Special features Wash down	Number of cores	4
Protection class IP67 Special features Wash down	Core cross-section	0.5 mm ²
Special features Wash down	Ambient temperature	-40+70 °C
	Protection class	IP67
Power-on indication LED, Green	Special features	Wash down
	Power-on indication	LED, Green



Features

- Cable, 2 m
- ■Protection class IP67
- ■Ambient temperature: -40...+70 °C
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- ■PNP switching output, changeover

Wiring diagram



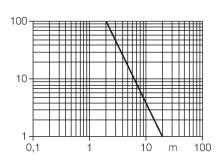
Functional principle

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 extremly 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

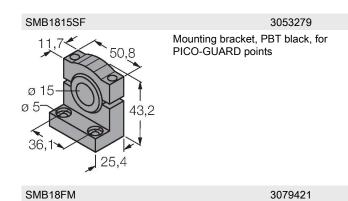


Technical data

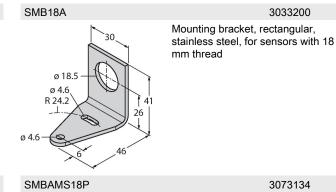
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, UL, CSA

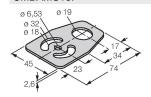


Accessories



mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread





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