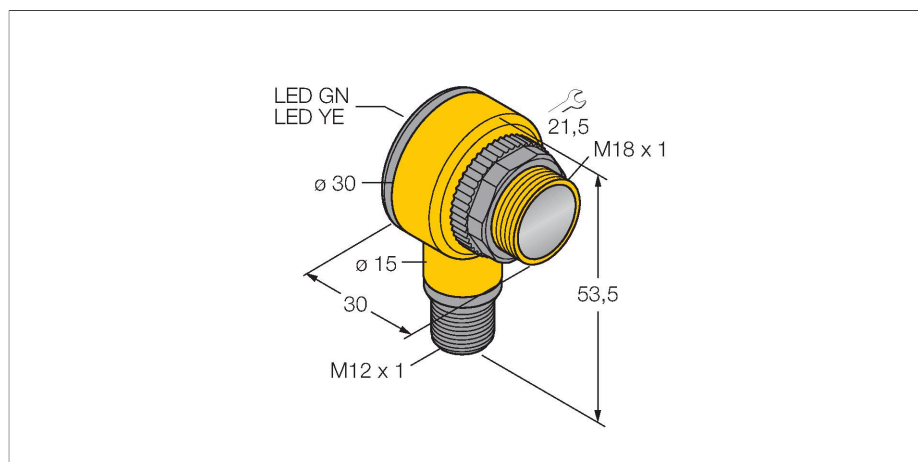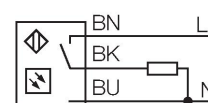# T18AW3RQ1
Photoelectric Sensor –   Opposed Mode Sensor (Receiver)

Features

- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C…+70 °C
- Selectable light/dark operation or light operation with alarm function

Wiring diagram

Technical data

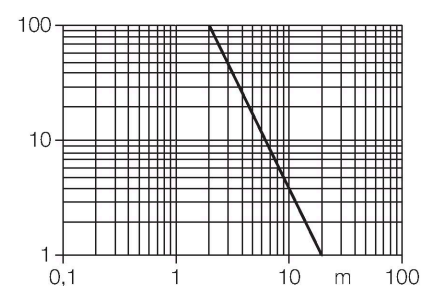| Type	T18AW3RQ1
ID	3033424
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0…20000 mm
Electrical data	
Operating voltage	20…250 VAC
AC rated operational current	≤ 200 mA
Output function	Light operation, Relay output
Switching frequency	≤ 40 Hz
Readiness delay	≤ 100 ms
Response time typical	< 16 ms
Mechanical data	
Design	Tube, T18
Dimensions	Ø 18 x 30 x 30 x 54 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Connector, 1/2", PVC
Number of cores	4
Ambient temperature	-40…+70 °C
Protection class	IP67 IP69
Special features	Chemical-resistant Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow

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

Hans Turck GmbH & Co. KG | 45466 Mülheim an der Ruhr, Germany | T +49 208 4952-0 | F +49 208 4952-264 | more@turck.com | www.turck.com 1|2

T18AW3RQ1 | 19-01-2022 03-31 | Technical modifications reserved

Technical data

Excess gain indication	LED
Tests/approvals	
Approvals	CE, UL, CSA

Accessories

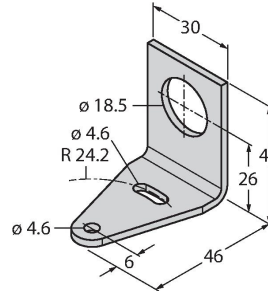| SMB1815SF	3053279
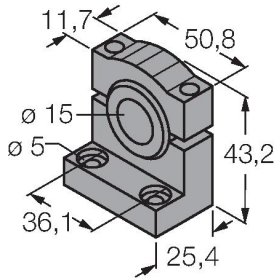
Mounting bracket, PBT black, for PICO-GUARD points

SMB18A	3033200

Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread
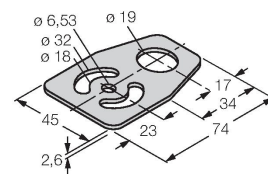
SMB18FM	3079421

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

SMBAMS18P	3073134

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