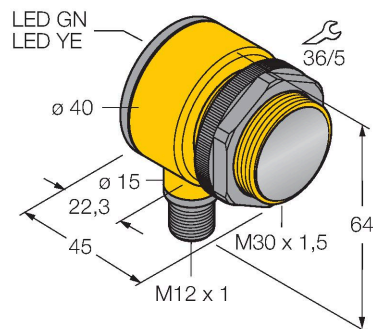


# T30AW3RQ1

## Photoelectric Sensor – Opposed Mode Sensor (Receiver)



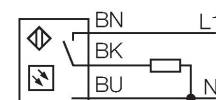
### Technical data

Type	T30AW3RQ1
ID no.	3033446
<b>Optical data</b>	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...60000 mm
<b>Electrical data</b>	
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
<b>Mechanical data</b>	
Design	Rectangular with thread, T30
Dimensions	Ø 30 x 45 x 40 x 64 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Connectors, 1/2", PVC
Number of cores	4
Ambient temperature	-40...+70 °C
Protection class	IP69
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED

### Features

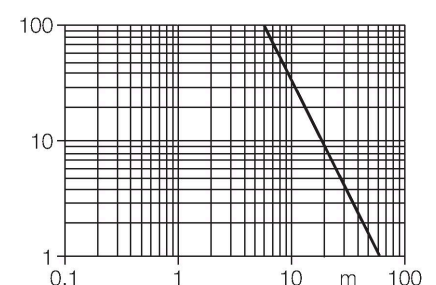
- M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40 °C...+70 °C

### 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

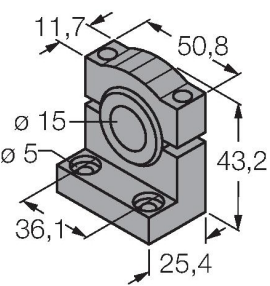


Technical data

Tests/approvals	
Approvals	CE, UL, CSA

Accessories

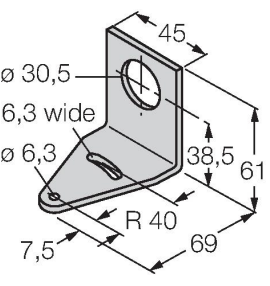
SMB1815SF	3053279
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Technical drawing of the SMB1815SF mounting bracket. It is a black PBT bracket for PICO-GUARD points. Dimensions include: top width 11.7, top length 50.8, front width 36.1, front height 25.4, side height 43.2, and a central hole with diameter 15 and a smaller hole with diameter 5.

Mounting bracket, PBT black, for PICO-GUARD points

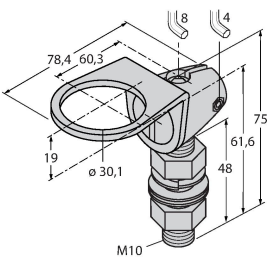
SMB30A	3032723
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Technical drawing of the SMB30A mounting bracket. It is a rectangular stainless steel bracket for sensors with 30mm thread. Dimensions include: top width 45, side height 61, front height 38.5, front width 6.3, and a bottom flange with width 7.5, length 69, and a radius R 40. There is a central hole with diameter 30.5 and a smaller hole with diameter 6.3.

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

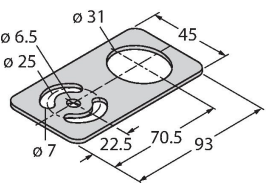
SMB30FAM10	3011185
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Technical drawing of the SMB30FAM10 mounting bracket. It is a stainless steel bracket for M10 x 1.5 thread, with a thread length of 30 mm. Dimensions include: top width 78.4, top length 60.3, side height 75, front height 61.6, front width 19, and a central hole with diameter 30.1. The thread is labeled M10.

Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

SMBAMS30P	3073135
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Technical drawing of the SMBAMS30P mounting bracket. It is a stainless steel bracket for sensors with 30 mm thread. Dimensions include: top width 45, side height 93, front height 70.5, front width 22.5, and a central hole with diameter 31. There are also smaller holes with diameters 6.5, 25, and 7.

Mounting bracket, stainless steel, for sensors with 30 mm thread