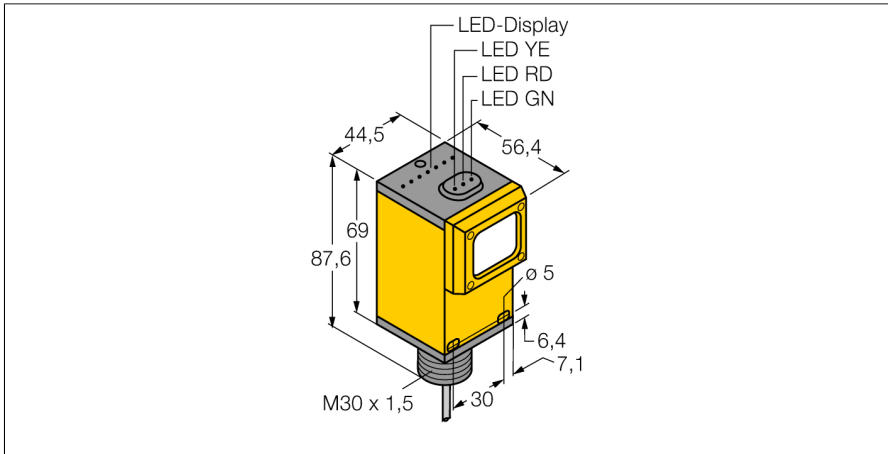


Photoelectric Sensor Opposed Mode Sensor (Emitter) Q456E W/30



- Cable, PVC, 2 m
- Protection class IP67
- Operating voltage: 10...30 VDC

Type	Q456E W/30
ID	3038472

Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	IR
Wavelength	880 nm
Range	0...60000 mm

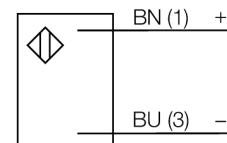
Electrical data	
Operating voltage U_s	10...30 VDC
No-load current I_0	≤ 50 mA
Readiness delay	≤ 0 ms

Mechanical data	
Design	Rectangular, Q45
Dimensions	Ø 30 x 56.4 x 44.5 x 87.6 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	2
Core cross-section	0.34 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67

Power-on indication	LED, Green
Excess gain indication	LED

Tests/approvals	
MTTF	67 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus, CSA

Wiring Diagram

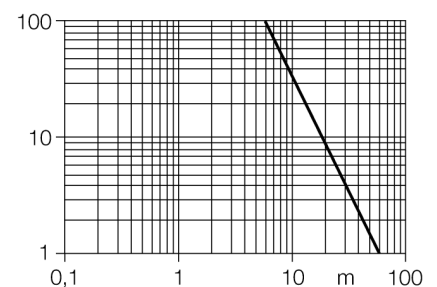


Functional principle

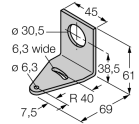
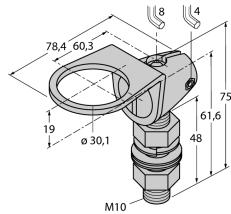
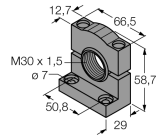
Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors 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



Accessories

Type code	Ident no.		Dimension drawing
SMB30A	3032723	Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	 <p>Technical drawing of a rectangular stainless steel mounting bracket. Dimensions include: top width 45, hole diameter $\phi 30.5$, hole offset 6.3, hole diameter $\phi 6.3$, hole offset 38.5, hole diameter 6.1, bottom width 69, bottom offset 7.5, and a radius of R 40.</p>
SMB30FAM10	3011185	Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm	 <p>Technical drawing of a stainless steel mounting bracket with a circular loop. Dimensions include: loop diameter 78.4, loop offset 60.3, loop offset 19, hole diameter $\phi 30.1$, hole offset 1, hole diameter 4, hole offset 61.6, hole diameter 48, and a total height of 75. The thread is labeled M10.</p>
SMB30SC	3052521	Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable	 <p>Technical drawing of a black PBT rotatable mounting bracket. Dimensions include: top width 12.7, top offset 66.5, hole diameter $\phi 7$, hole offset 58.7, hole diameter 50.8, and a bottom width of 29. The thread is labeled M30 x 1.5.</p>