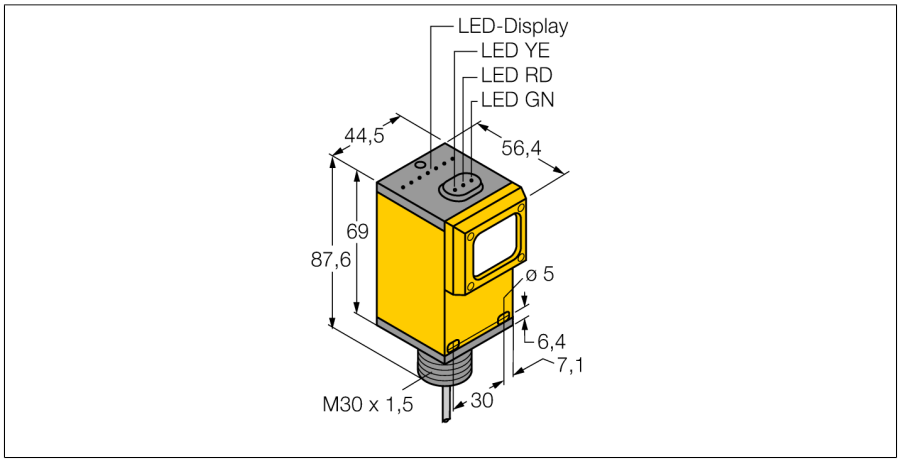
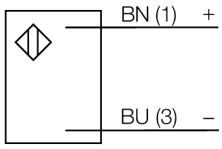
Photoelectric Sensor
Opposed Mode Sensor (Emitter)
Q456E W/30



- 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_B	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 mm²
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

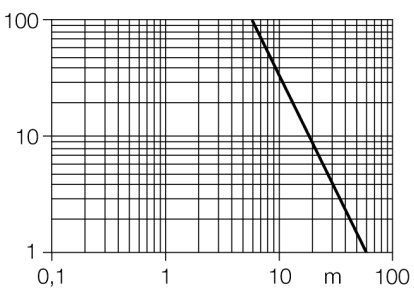


Functional principle

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 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



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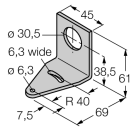
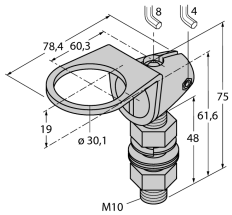
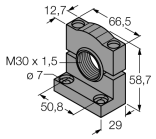
Accessories

Type code	Ident no.		Dimension drawing
SMB30A	3032723	Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	
SMB30FAM10	3011185	Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm	
SMB30SC	3052521	Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable	

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