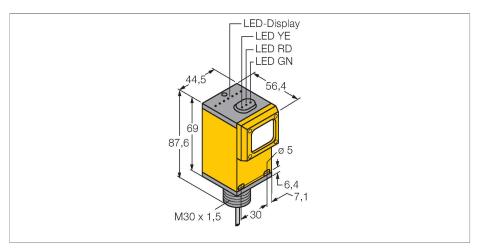
# Q453E W/30 Photoelectric Sensor – Opposed Mode Sensor (Emitter)





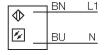
ID 3067343  Optical data Function Opposed mode sensor  Operating mode Emitter  Light type IR  Wavelength 880 nm  Range 060000 mm  Electrical data Operating voltage 12250 VDC  Operating voltage 24250 VAC  No-load current ≤ 50 mA  Readiness delay ≤ 0 ms  Mechanical data  Design Rectangular, Q45  Dimensions 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	Туре	Q453E W/30
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Operating mode       Emitter         Light type       IR         Wavelength       880 nm         Range       060000 mm         Electrical data       0perating voltage         Operating voltage       12250 VDC         Operating voltage       24250 VAC         No-load current       ≤ 50 mA         Readiness delay       ≤ 0 ms         Mechanical data       Pesign         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	Optical data	
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Number of cores 2  Core cross-section 0.34 mm²	Lens	plastic, Acrylic
Core cross-section 0.34 mm <sup>2</sup>	Electrical connection	Cable, 9 m, PVC
	Number of cores	2
	Core cross-section	0.34 mm²
Ambient temperature -25+55 °C	Ambient temperature	-25+55 °C
Protection class IP67	Protection class	IP67
Power-on indication LED, Green	Power-on indication	LED, Green
Excess gain indication LED	Excess gain indication	LED



### **Features**

- ■Cable, PVC, 2 m
- ■Protection class IP67
- Operating voltage: 12...250 VDC or 24... 250 VAC

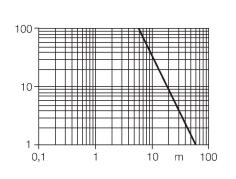
## Wiring diagram



## 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

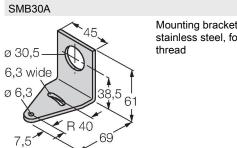
Excess gain in relation to the distance



# Technical data

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

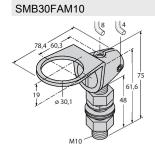
### Accessories



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

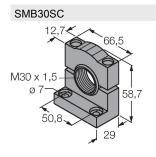
3032723

3052521



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

3011185



Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable