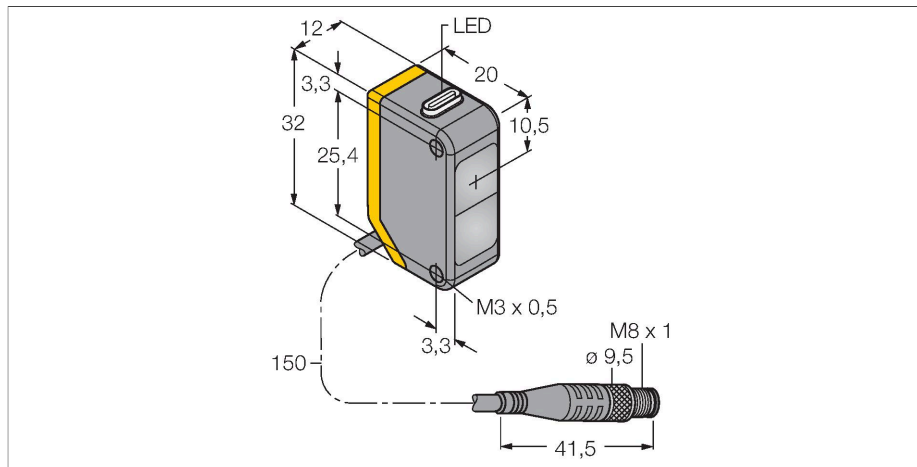


Q20EQ

Photoelectric Sensor – Opposed Mode Sensor (Emitter)



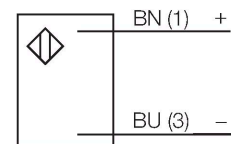
Technical data

Type	Q20EQ
ID no.	3078225
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	Red
Wavelength	655 nm
Range	0...12000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
No-load current	≤ 18 mA
Reverse polarity protection	yes
Readiness delay	≤ 100 ms
Mechanical data	
Design	Rectangular, Q20
Dimensions	20 x 12 x 32 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-20...+60 °C
Protection class	IP67
Power-on indication	LED, Green
Excess gain indication	LED

Features

- Cable with male end, PVC, M8 × 1, 4-pin, 150 mm
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC

Wiring diagram



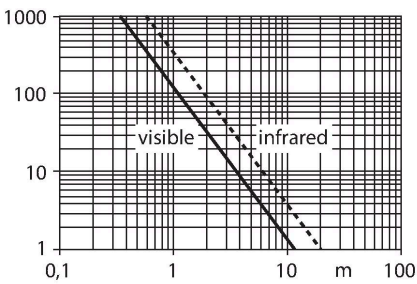
Functional principle

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.

Technical data

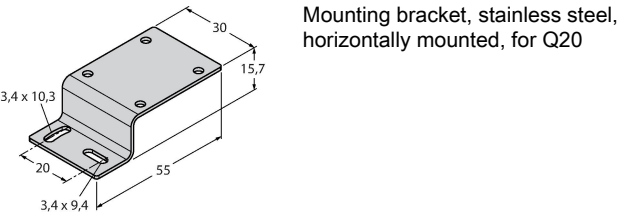
Tests/approvals	
Approvals	CE

Excess Gain Curve

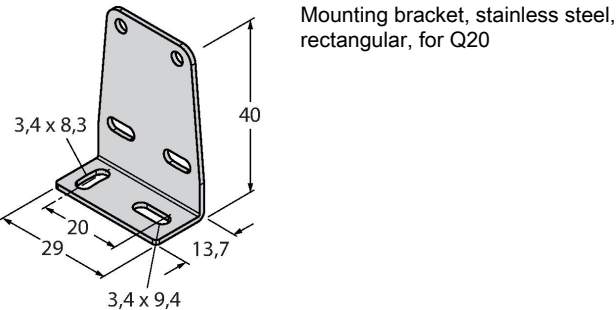


Accessories

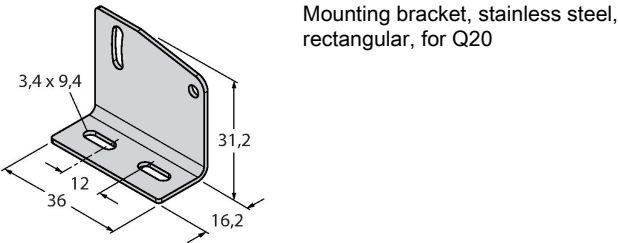
SMBQ20H	3079041
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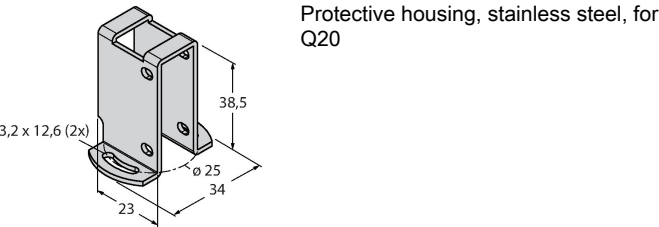
SMBQ20L	3079040
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SMBQ20LV	3079042
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SMBQ20U	3079043
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Accessories

Dimension drawing	Type	ID no.	
<p>PKW4M-2/TEL</p> <p>6625067</p> <p>Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com</p>	PKW4M-2/TEL	6625067	Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
<p>PKG4M-2/TEL</p> <p>6625061</p> <p>Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com</p>	PKG4M-2/TEL	6625061	Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com