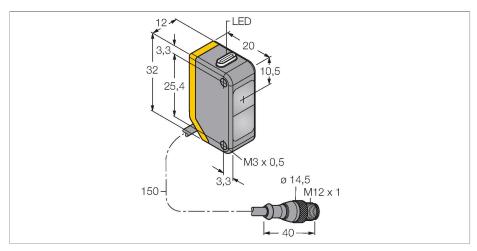


Q20ELQ5 Photoelectric Sensor – Opposed Mode Sensor (Emitter)



Technical data

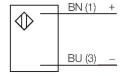
ID 3078206 Optical data Function Opposed mode sensor Operating mode Emitter Light type IR Wavelength 850 nm Range 020000 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂ No-load current ≤ 18 mA Reverse polarity protection yes Readiness delay ≤ 100 ms Mechanical data Design Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 × 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	Туре	Q20ELQ5
Function Opposed mode sensor Operating mode Emitter Light type IR Wavelength 850 nm Range 020000 mm Electrical data Operating voltage 1030 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, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	ID	3078206
Operating mode Emitter Light type IR Wavelength 850 nm Range 020000 mm Electrical data 0perating voltage Operating voltage 1030 VDC Residual ripple < 10 % U₂s	Optical data	
Light type IR Wavelength 850 nm Range 020000 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂₂ 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, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Function	Opposed mode sensor
Wavelength 850 nm Range 020000 mm Electrical data 0perating voltage Operating voltage 1030 VDC Residual ripple < 10 % U₂,	Operating mode	Emitter
Range 020000 mm Electrical data Operating voltage 1030 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, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Light type	IR
Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₅ 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, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Wavelength	850 nm
Operating voltage 1030 VDC Residual ripple < 10 % U _{ss} No-load current ≤ 18 mA Reverse polarity protection yes Readiness delay ≤ 100 ms Mechanical data Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 x 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Range	020000 mm
Residual ripple < 10 % U _{ss} No-load current ≤ 18 mA Reverse polarity protection yes Readiness delay ≤ 100 ms Mechanical data Pesign Design Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Electrical data	
No-load current ≤ 18 mA Reverse polarity protection yes Readiness delay ≤ 100 ms Mechanical data Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 x 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Operating voltage	1030 VDC
Reverse polarity protection yes Readiness delay ≤ 100 ms Mechanical data Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Residual ripple	< 10 % U _{ss}
Readiness delay ≤ 100 ms Mechanical data Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	No-load current	≤ 18 mA
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, M12 x 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Reverse polarity protection	yes
Design Rectangular, Q20 Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Electrical connection Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Readiness delay	≤ 100 ms
Dimensions 20 x 12 x 32 mm Housing material Plastic, Thermoplastic material Lens plastic, Acrylic Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Mechanical data	
Housing material Lens plastic, Thermoplastic material plastic, Acrylic Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Design	Rectangular, Q20
Lens plastic, Acrylic Electrical connection Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Dimensions	20 x 12 x 32 mm
Electrical connection Cable with connector, M12 × 1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Housing material	Plastic, Thermoplastic material
1, 0.15 m, PVC Number of cores 4 Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Lens	plastic, Acrylic
Ambient temperature -20+60 °C Protection class IP67 Power-on indication LED, Green	Electrical connection	
Protection class IP67 Power-on indication LED, Green	Number of cores	4
Power-on indication LED, Green	Ambient temperature	-20+60 °C
	Protection class	IP67
Excess gain indication LFD	Power-on indication	LED, Green
Exocoo gain indication	Excess gain indication	LED



Features

- Cable with male end, M12 × 1, 4-pin, PVC, 150 mm
- ■Protection class IP67
- ■LED all-round visible
- Operating voltage: 10...30 VDC

Wiring diagram



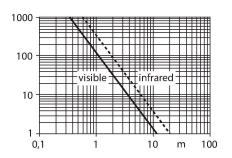
Functional principle

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 extremly high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions.

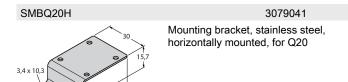
Technical data

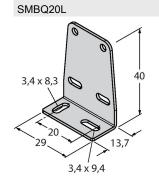
Tests/approvals Approvals CE

Excess Gain Curve



Accessories

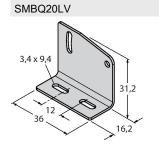




Mounting bracket, stainless steel, rectangular, for Q20

3079040

3079043



Mounting bracket, stainless steel, rectangular, for Q20

3079042



Protective housing, stainless steel, for Q20

Accessories

Dimension drawing	Туре	ID	
M12x1 e15 14	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
015 M12x1 26.5 32 32	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com