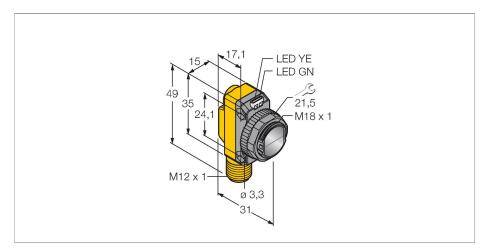


QS186LE211Q8 Photoelectric Sensor – Laser Emitter



Technical data

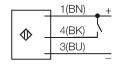
ID 3075965 Optical data Function Opposed mode sensor Operating mode Laser Emitter Light type IR Wavelength 650 nm Laser class ▲ 2 Range 015000 mm Electrical data Operating voltage 1030 VDC Residual ripple <10 % U₂ DC rated operational current ≤100 mA Short-circuit protection yes Reverse polarity protection yes Readiness delay ≤10 ms Mechanical data Design Rectangular with thread, QS18 Dimensions Ø18 x 31 x 15 x 35 mm Housing material Plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser Power-on indication LED, Green	Туре	QS186LE211Q8		
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Laser class ♠ 2 Range 015000 mm Electrical data 0perating voltage Operating voltage 1030 VDC Residual ripple < 10 % U₂₂	Light type	IR		
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Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂₂ DC rated operational current ≤ 100 mA Short-circuit protection yes Reverse polarity protection yes Readiness delay ≤ 10 ms Mechanical data Design Rectangular with thread, QS18 Dimensions Ø 18 x 31 x 15 x 35 mm Housing material Plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Laser class	<u>^</u> 2		
Operating voltage 1030 VDC Residual ripple < 10 % U₂s	Range	015000 mm		
Residual ripple < 10 % U₅₅	Electrical data			
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Short-circuit protection yes Reverse polarity protection yes Readiness delay ≤ 10 ms Mechanical data Rectangular with thread, QS18 Dimensions Ø 18 x 31 x 15 x 35 mm Housing material Plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Residual ripple	< 10 % U _{ss}		
Reverse polarity protection yes Readiness delay ≤ 10 ms Mechanical data Rectangular with thread, QS18 Dimensions Ø 18 x 31 x 15 x 35 mm Housing material Plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 x 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	DC rated operational current	≤ 100 mA		
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Mechanical dataDesignRectangular with thread, QS18DimensionsØ 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionConnector, M12 x 1, PVCNumber of cores4Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Reverse polarity protection	yes		
Design Rectangular with thread, QS18 Dimensions Ø 18 x 31 x 15 x 35 mm Housing material Plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Readiness delay	≤ 10 ms		
Dimensions Ø 18 x 31 x 15 x 35 mm Housing material Plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Mechanical data			
Housing material Lens plastic, ABS Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Design	Rectangular with thread, QS18		
Lens plastic, PMMA Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Dimensions	Ø 18 x 31 x 15 x 35 mm		
Electrical connection Connector, M12 × 1, PVC Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Housing material	Plastic, ABS		
Number of cores 4 Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Lens	plastic, PMMA		
Ambient temperature -10+50 °C Protection class IP67 Special features Laser	Electrical connection	Connector, M12 × 1, PVC		
Protection class IP67 Special features Laser	Number of cores	4		
Special features Laser	Ambient temperature	-10+50 °C		
	Protection class	IP67		
Power-on indication LED, Green	Special features	Laser		
	Power-on indication	LED, Green		

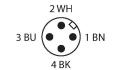


Features

- Male M12 × 1, 4-pin
- ■Protection class IP67
- Light shaping: vertical bar
- Operating voltage: 10...30 VDC

Wiring diagram





Functional principle

Opposed mode sensors consist of an emitter and a receiver. They are installed opposite to each other whereby the emitted light aims 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 objects. The high light/dark contrast and the very high excess gain are typical for this function mode and enable operation over large distances and under difficult conditions.

Activation

By connecting the control input (PIN 2 WH) to ground (-) the laser beam is turned on. The laser beam is turned off again by feeding 10 ... 30 VDC to the control input or by nonconnecting the wire.

Excess gain curve

Technical data

Excess gain indication

Tests/approvals

MTTF

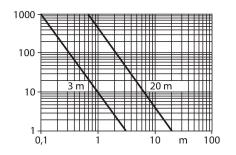
530 years acc. to SN 29500 (Ed. 99) 40

°C

Approvals

CE

Excess gain in relation to the distance (type 6EB/RB)



Accessories

SMB18A

Ø 18.5

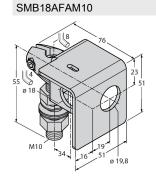
Ø 4.6

R 24.2

Ø 4.6

A 46

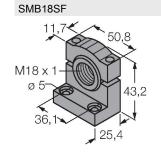
3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread



3012558 Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

M18 x 1 24,9 19,4

3069721 Mounting bracket, stainless steel, for 18 mm thread



Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable

3052519

Accessories

Dimension drawing	Туре	ID	
M12x1 o 15 \$\infty\$ 14 \\ \dagger{11.5} + \dagger{11.5} + \dagger{12} \dagger{12} \dagger{12} \dagger{13} \dagger{14} \dagger{15}	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
9 15 M12 x 1 26.5 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