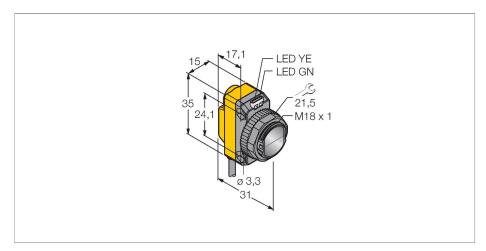


# QS186LE211 W/30 Photoelectric Sensor – Laser Emitter



#### Technical data

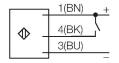
ID no.   3075961	Туре	QS186LE211 W/30
Function Opposed mode sensor  Operating mode Laser Emitter  Light type IR  Wavelength 650 nm  Laser class ▲ 2  Range 015000 mm  Electrical data  Operating voltage 1030 VDC  Residual ripple < 10 % U <sub>ss</sub> DC rated operational current ≤ 100 mA  Short-circuit 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 Cable, 9 m, PVC  Number of cores 4  Core cross-section 0.35 mm²  Ambient temperature -10+50 °C  Protection class IP67	ID no.	3075961
Operating mode       Laser Emitter         Light type       IR         Wavelength       650 nm         Laser class       ▲ 2         Range       015000 mm         Electrical data       Operating voltage         Operating voltage       1030 VDC         Residual ripple       < 10 % U₂,	Optical data	
Light type IR  Wavelength 650 nm  Laser class	Function	Opposed mode sensor
Wavelength 650 nm   Laser class ▲ 2   Range 015000 mm   Electrical data Operating voltage 1030 VDC   Residual ripple < 10 % U₂,	Operating mode	Laser Emitter
Laser class ♠ 2   Range 015000 mm   Electrical data 0perating voltage 1030 VDC   Residual ripple < 10 % Uss	Light type	IR
Range 015000 mm   Electrical data 1030 VDC   Residual ripple < 10 % U <sub>ss</sub> DC rated operational current ≤ 100 mA   Short-circuit protection yes   Reverse polarity protection yes   Readiness delay ≤ 10 ms   Mechanical data Sesign   Dimensions Ø 18 x 31 x 15 x 35 mm   Housing material Plastic, ABS   Lens plastic, PMMA   Electrical connection Cable, 9 m, PVC   Number of cores 4   Core cross-section 0.35 mm²   Ambient temperature -10+50 °C   Protection class IP67	Wavelength	650 nm
Electrical data  Operating voltage  1030 VDC  Residual ripple  < 10 % U <sub>ss</sub> DC rated operational current  Short-circuit protection  Reverse polarity protection  Readiness delay  Mechanical data  Design  Rectangular with thread, QS18  Dimensions  Ø 18 x 31 x 15 x 35 mm  Housing material  Lens  plastic, ABS  Lens  plastic, PMMA  Electrical connection  Cable, 9 m, PVC  Number of cores  4  Core cross-section  0.35 mm²  Ambient temperature  -10+50 °C  Protection class	Laser class	<u>^</u> 2
Operating voltage       1030 VDC         Residual ripple       < 10 % U₂s	Range	015000 mm
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DC rated operational current       ≤ 100 mA         Short-circuit protection       yes         Reverse polarity protection       yes         Readiness delay       ≤ 10 ms         Mechanical data       Pesign         Design       Rectangular with thread, QS18         Dimensions       Ø 18 x 31 x 15 x 35 mm         Housing material       Plastic, ABS         Lens       plastic, PMMA         Electrical connection       Cable, 9 m, PVC         Number of cores       4         Core cross-section       0.35 mm²         Ambient temperature       -10+50 °C         Protection class       IP67	Operating voltage	1030 VDC
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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 Cable, 9 m, PVC   Number of cores 4   Core cross-section 0.35 mm²   Ambient temperature -10+50 °C   Protection class IP67	DC rated operational current	≤ 100 mA
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 Cable, 9 m, PVC   Number of cores 4   Core cross-section 0.35 mm²   Ambient temperature -10+50 °C   Protection class IP67	Short-circuit protection	yes
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Housing material  Plastic, ABS  Lens  plastic, PMMA  Electrical connection  Cable, 9 m, PVC  Number of cores  4  Core cross-section  0.35 mm²  Ambient temperature  -10+50 °C  Protection class	Design	Rectangular with thread, QS18
Lens plastic, PMMA  Electrical connection Cable, 9 m, PVC  Number of cores 4  Core cross-section 0.35 mm²  Ambient temperature -10+50 °C  Protection class IP67	Dimensions	Ø 18 x 31 x 15 x 35 mm
Electrical connection  Cable, 9 m, PVC  Number of cores  4  Core cross-section  0.35 mm²  Ambient temperature  -10+50 °C  Protection class  IP67	Housing material	Plastic, ABS
Number of cores 4  Core cross-section 0.35 mm²  Ambient temperature -10+50 °C  Protection class IP67	Lens	plastic, PMMA
Core cross-section 0.35 mm²  Ambient temperature -10+50 °C  Protection class IP67	Electrical connection	Cable, 9 m, PVC
Ambient temperature -10+50 °C  Protection class IP67	Number of cores	4
Protection class IP67	Core cross-section	0.35 mm²
	Ambient temperature	-10+50 °C
Special features Laser	Protection class	IP67
	Special features	Laser



#### **Features**

- Cable, PVC, 9 m
   Protection class IP67
   Light shaping: vertical bar
- Cable 9 m

## 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.

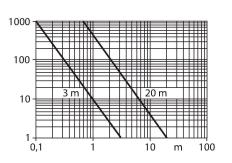
Excess gain curve

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



### Technical data

Power-on indication	LED, Green
Excess gain indication	LED
Tests/approvals	
MTTF	530 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE



### Accessories

SMB18A

Ø 18.5

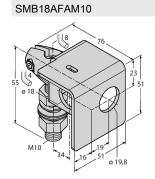
Ø 4.6

R 24.2

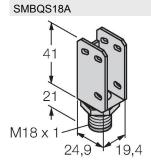
Ø 4.6

A 46

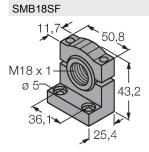
3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread



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



3069721 Mounting bracket, stainless steel, for 18 mm thread



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

3052519