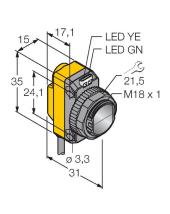


QS186LE214 W/30' Photoelectric Sensor – Laser Emitter



Technical data

ID no. 3075970 Optical dataFunctionOpposed mode sensorOperating modeLaser EmitterLight typeIRWavelength 650 nm Range 015000 mm Electrical data 030 VDC Residual ripple $10 \ \% U_{ss}$ DC rated operational current $\leq 100 \text{ mA}$ Short-circuit protectionyesReadiness delay $\leq 10 \text{ ms}$ Mechanical data $0 \ \% 18 \times 31 \times 15 \times 35 \text{ mm}$ Housing materialPlastic, ABSLensplastic, PMMAElectrical connection $cable, 9 \text{ m, PVC}$ Number of cores4Core cross-section 0.35 mm^2 Ambient temperature $-10 \+50 \ ^{\circ}C$ Protection classIP67Special featuresLaserPower-on indicationLED, Green	Туре	QS186LE214 W/30'
FunctionOpposed mode sensorOperating modeLaser EmitterLight typeIRWavelength 650 nm Range015000 mmElectrical data 015000 mm Operating voltage 1030 VDC Residual ripple $< 10 \ \% \ U_{ss}$ DC rated operational current $\leq 100 \ mA$ Short-circuit protectionyesReverse polarity protectionyesReadiness delay $\leq 10 \ ms$ Mechanical data $018 \times 31 \times 15 \times 35 \ mm$ Dimensions $018 \times 31 \times 15 \times 35 \ mm$ Housing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 \ m, PVCNumber of cores4Core cross-section $0.35 \ mm^2$ Ambient temperature $-10+50 \ ^{\circ}C$ Protection classIP67Special featuresLaser	ID no.	3075970
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Light typeIRLight typeIRWavelength 650 nm Range 015000 mm Electrical data 030 VDC Qperating voltage 1030 VDC Residual ripple $< 10 \text{ W U}_{ss}$ DC rated operational current $\leq 100 \text{ mA}$ Short-circuit protectionyesReverse polarity protectionyesReadiness delay $\leq 10 \text{ ms}$ Mechanical data V DesignRectangular with thread, QS18Dimensions $\emptyset 18 \times 31 \times 15 \times 35 \text{ mm}$ Housing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section 0.35 mm^2 Ambient temperature $-10+50 \ ^{\circ}C$ Protection classIP67Special featuresLaser	Function	Opposed mode sensor
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Range015000 mmElectrical data30 VDCOperating voltage1030 VDCResidual ripple< 10 % U _{ss} DC rated operational current≤ 100 mAShort-circuit protectionyesReverse polarity protectionyesReadiness delay≤ 10 msMechanical dataDimensionsØ 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Light type	IR
Electrical dataOperating voltage 1030 VDCResidual ripple< 10% UsDC rated operational current ≤ 100 mAShort-circuit protectionyesReverse polarity protectionyesReadiness delay ≤ 10 msMechanical data \qquad Dimensions \emptyset 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section 0.35 mm²Ambient temperature $-10+50$ °CProtection classIP67Special featuresLaser	Wavelength	650 nm
Operating voltage1030 VDCResidual ripple< 10 % U_s	Range	015000 mm
Residual ripple< 10 % U₅sDC rated operational current≤ 100 mAShort-circuit protectionyesReverse polarity protectionyesReadiness delay≤ 10 msMechanical dataDesignRectangular with thread, QS18DimensionsØ 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Electrical data	
DC rated operational current≤ 100 mAShort-circuit protectionyesReverse polarity protectionyesReadiness delay≤ 10 msMechanical dataDesignRectangular with thread, QS18DimensionsØ 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Operating voltage	1030 VDC
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Reverse polarity protectionyesReadiness delay≤ 10 msMechanical dataDesignRectangular with thread, QS18DimensionsØ 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	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 connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Reverse polarity protection	yes
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DimensionsØ 18 x 31 x 15 x 35 mmHousing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Mechanical data	
Housing materialPlastic, ABSLensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Design	Rectangular with thread, QS18
Lensplastic, PMMAElectrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Dimensions	Ø 18 x 31 x 15 x 35 mm
Electrical connectionCable, 9 m, PVCNumber of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Housing material	Plastic, ABS
Number of cores4Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Lens	plastic, PMMA
Core cross-section0.35 mm²Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Electrical connection	Cable, 9 m, PVC
Ambient temperature-10+50 °CProtection classIP67Special featuresLaser	Number of cores	4
Protection class IP67 Special features Laser	Core cross-section	0.35 mm ²
Special features Laser	Ambient temperature	-10+50 °C
-	Protection class	IP67
Power-on indication LED, Green	Special features	Laser
	Power-on indication	LED, Green



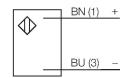
Features

Cable, PVC, 9 m Protection class IP67

LED all-round visible

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

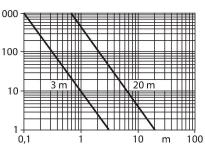
By connecting the control input (PIN 2 WH) to ground (-) the laser beam is turned on. The laser beam is turned off again by feeding 10 ... 30 VDC to the control input or by nonconnecting the wire. Excess gain curve

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

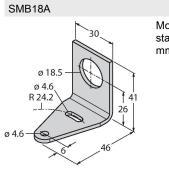


Technical data

Excess gain indication	LED	100
Tests/approvals		100
MTTF	530 years acc. to SN 29500 (Ed. 99) 40 °C	10
Approvals	CE, cURus	1

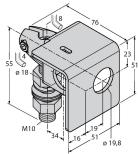


Accessories

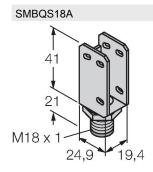


3033200 Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

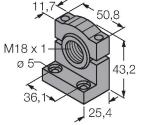
SMB18AFAM10



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 SMB18SF



3052519

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