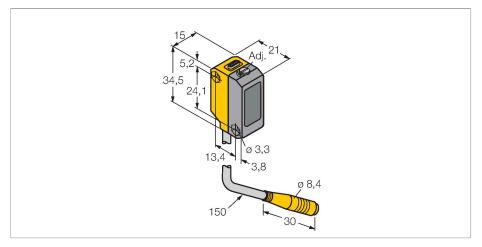


QS18VP6AFF200Q Photoelectric Sensor – Diffuse Mode Sensor with Adjustable Foreground Suppression





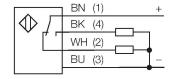
ID 3011473 Optical data Function Proximity switch Operating mode Foreground suppression, adjustable Light type Red Wavelength 630 nm Range 30200 mm Electrical data Poperating voltage Operating voltage 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 100 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms Setting option Mechanical Screw Mechanical data Posign Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, Acrylic	Туре	QS18VP6AFF200Q
Function Proximity switch Operating mode Foreground suppression, adjustable Light type Red Wavelength 630 nm Range 30200 mm Electrical data Operating voltage 1030 VDC Residual ripple <10 % Uss DC rated operational current ≤100 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤700 Hz Readiness delay ≤200 ms Response time typical <2.5 ms Setting option Mechanical Screw Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	ID	3011473
Operating mode Light type Red Wavelength 630 nm Range 30200 mm Electrical data Operating voltage 1030 VDC Residual ripple <10 % U₂ DC rated operational current Short-circuit protection Yes Reverse polarity protection Output function NO/NC, PNP Current output 100 mA Switching frequency Readiness delay Response time typical Setting option Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Fascon mm Foreground suppression, adjustable Red Red ### Authority ### Authorit	Optical data	
Light type Red Wavelength 630 nm Range 30200 mm Electrical data 1030 VDC Residual ripple < 10 % U₂₂	Function	Proximity switch
Wavelength630 nmRange30200 mmElectrical data30 VDCQperating voltage1030 VDCResidual ripple< 10 % Uss	Operating mode	Foreground suppression, adjustable
Range 30200 mm Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U _{ss} DC rated operational current ≤ 100 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms Setting option Mechanical Screw Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	Light type	Red
Electrical data Operating voltage 1030 VDC Residual ripple < 10 % U₂₂ DC rated operational current ≤ 100 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms Setting option Mechanical Screw Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	Wavelength	630 nm
Operating voltage 1030 VDC Residual ripple < 10 % U₅s	Range	30200 mm
Residual ripple < 10 % U₅s	Electrical data	
DC rated operational current ≤ 100 mA Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms	Operating voltage	1030 VDC
Short-circuit protection yes Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms	Residual ripple	< 10 % U _{ss}
Reverse polarity protection yes Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms	DC rated operational current	≤ 100 mA
Output function NO/NC, PNP Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms	Short-circuit protection	yes
Current output 100 mA Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms	Reverse polarity protection	yes
Switching frequency ≤ 700 Hz Readiness delay ≤ 200 ms Response time typical < 2.5 ms Setting option Mechanical Screw Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	Output function	NO/NC, PNP
Readiness delay ≤ 200 ms Response time typical < 2.5 ms	Current output	100 mA
Response time typical < 2.5 ms Setting option Mechanical Screw Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	Switching frequency	≤ 700 Hz
Setting option Mechanical Screw Mechanical data Design Rectangular, QS18 Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	Readiness delay	≤ 200 ms
Mechanical dataDesignRectangular, QS18Dimensions21.1 x 15 x 34.5 mmHousing materialPlastic, ABS	Response time typical	< 2.5 ms
DesignRectangular, QS18Dimensions21.1 x 15 x 34.5 mmHousing materialPlastic, ABS	Setting option	Mechanical Screw
Dimensions 21.1 x 15 x 34.5 mm Housing material Plastic, ABS	Mechanical data	
Housing material Plastic, ABS	Design	Rectangular, QS18
	Dimensions	21.1 x 15 x 34.5 mm
Lens plastic, Acrylic	Housing material	Plastic, ABS
	Lens	plastic, Acrylic



Features

- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- ■Protection class IP67
- ■LED all-round visible
- ■Cut-off point adjusted via potentiometer
- Operating voltage: 10...30 VDC
- ■PNP switching output, changeover

Wiring diagram





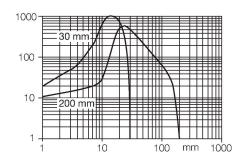
Functional principle

Diffuse mode sensors with foreground and background suppression operate with a single emitter and two receiver elements, one for close range and one for far range. The target position and the photoelectric structure of the sensor determine which receiver element gets the most light. The optics in front of the receiver is modified with the adjusting screw until the boundary between close and far range is shifted. This operation determines whether the reflecting object is in or outside the measuring range.

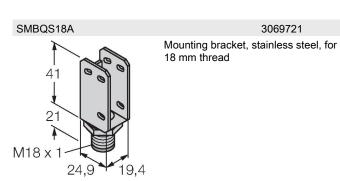
Technical data

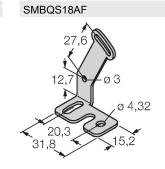
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-20+55 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
Tests/approvals	
MTTF	268 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus

Excess gain curves relating to the nearest and farthest cut-off point



Accessories





Mounting bracket, stainless steel, for 18 mm thread

3067467

Accessories

Dimension drawing	Туре	ID	
M8 x 1 o 9.6 25 9 33.5	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
M8 x1 - 0 9.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16	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