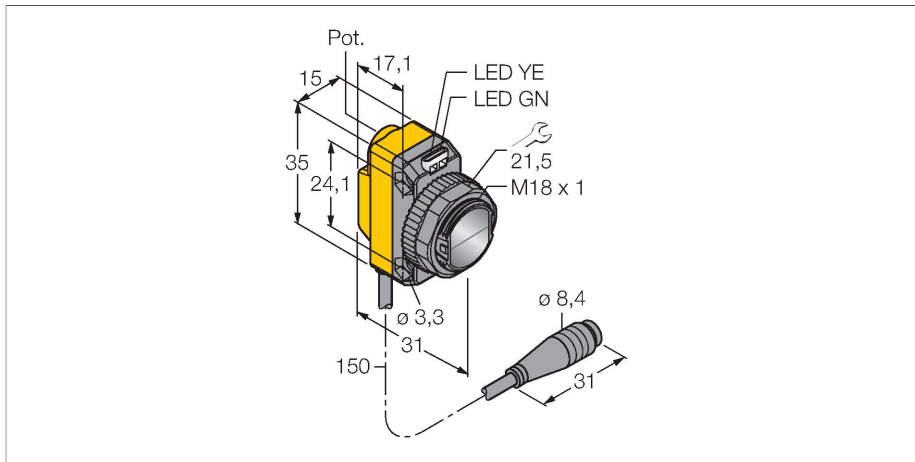


# QS18VN6FF150Q

## Photoelectric Sensor – Diffuse Mode Sensor with Fixed-Field Background Suppression



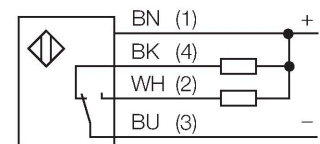
### Technical data

Type	QS18VN6FF150Q
ID no.	3801153
<b>Optical data</b>	
Function	Diffuse mode sensor with fixed-field background suppression
Light type	Red
Wavelength	660 nm
Range	0...150 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U <sub>ss</sub>
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, NPN
Current output	100 mA
Switching frequency	≤ 625 Hz
<b>Mechanical data</b>	
Design	Rectangular, QS18
Dimensions	31 x 15 x 35 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Ambient temperature	-20...+70 °C
Protection class	IP67

### Features

- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- Protection class IP67
- LED all-round visible
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

### Wiring diagram



### Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target position and the photoelectric structure of the sensor determine which of the receiving elements receives the most light. The sensor electronics determine whether the reflecting object is within or outside the measuring range. These sensors come with a fixed cut-off point.

Excess gain curve  
Excess gain in relation to the distance

## Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
<b>Tests/approvals</b>	
MTTF	965 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus

## Accessories

<p><b>SMB18A</b></p>	<p><b>3033200</b></p> <p>Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread</p>	<p><b>SMB18AFAM10</b></p>	<p><b>3012558</b></p> <p>Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm</p>
<p><b>SMBQS18A</b></p>	<p><b>3069721</b></p> <p>Mounting bracket, stainless steel, for 18 mm thread</p>	<p><b>SMB18SF</b></p>	<p><b>3052519</b></p> <p>Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable</p>

## Accessories

Dimension drawing	Type	ID no.	
	<p>PKG4M-2/TEL</p>	<p>6625061</p>	<p>Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a></p>
	<p>PKW4M-2/TEL</p>	<p>6625067</p>	<p>Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a></p>