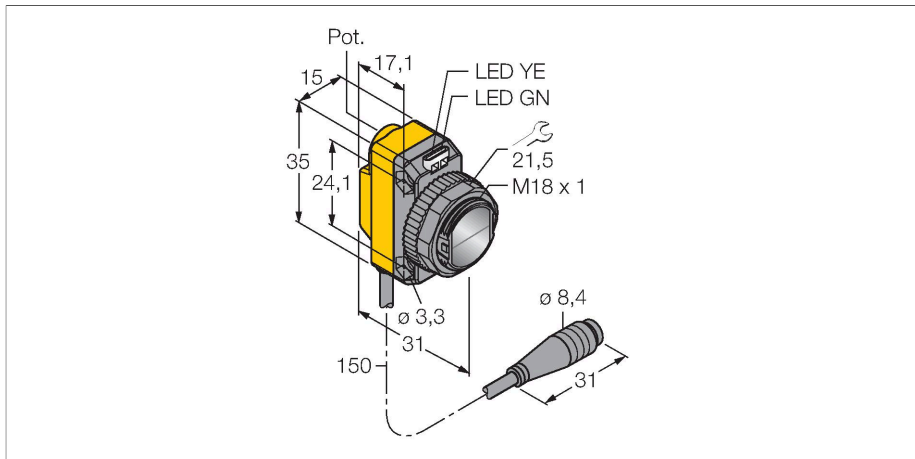


# QS18VN6LLPQ

## Photoelectric Sensor – Retroreflective Laser Sensor with Polarizing Filter



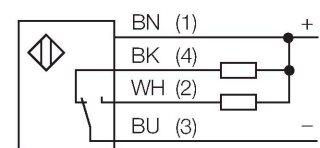
### Technical data

Type	QS18VN6LLPQ
ID	3073237
<b>Optical data</b>	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	yes
Light type	Red polarized
Wavelength	650 nm
Laser class	▲ 1
Beam diameter	4 at 10000 mm
Range	100...10000 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	≤ 700 Hz
Readiness delay	≤ 200 ms
Response time typical	< 0.7 ms
Setting option	Potentiometer
<b>Mechanical data</b>	
Design	Rectangular with thread, QS18
Dimensions	Ø 18 x 31 x 15 x 35 mm

### Features

- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- Protection class IP67
- LED, all-round visible
- Sensitivity adjusted via potentiometer
- Microprism reflector BRT-51X51BM recommended for ranges up to 10 m and self-adhesive reflector film BRT-TVHG-2X2 for ranges up to 1.5 m; included in scope of delivery
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

### Wiring diagram



### Functional principle

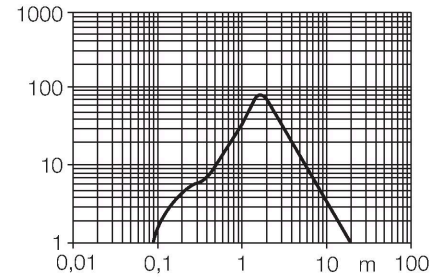
Retro-reflective sensors incorporate emitter and receiver in the same compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors incorporate some of the advantages of opposed mode sensors (good contrast

## Technical data

Housing material	Plastic, ABS
Lens	plastic, Acrylic
Electrical connection	Cable with connector, M8 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-10...+50 °C
Protection class	IP67
Special features	Laser
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
<b>Tests/approvals</b>	
Approvals	CE, cURus

and high excess gain). Further it is merely required to install and wire a single device. A smaller sensing range and susceptibility of devices without polarisation filter can be of disadvantage when shiny objects have to be detected.

Excess gain curve  
Excess gain in relation to the distance (reflector type BRT-51X51BM)



## Accessories

**SMB18A** 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

**SMBQS18A** 3069721

Mounting bracket, stainless steel, for 18 mm thread

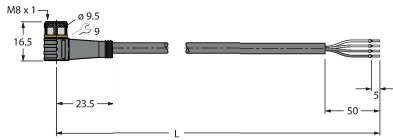
**SMB18SF** 3052519

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

## Accessories

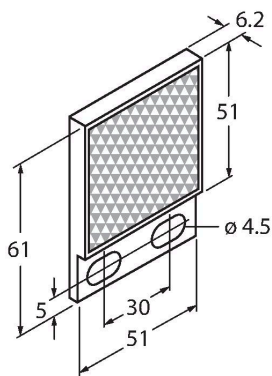
Dimension drawing	Type	ID	
	PKG4M-2/TEL	6625061	Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>

Dimension drawing	Type	ID	
	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 <a href="http://www.turck.com">www.turck.com</a>



## Accessories

Dimension drawing	Type	ID	
	BRT-51X51BM	3071791	Rectangular reflector, reflection coefficient 2.0, material acrylic, ambient temperature -20 ... +60 °C, microprism geometry



	BRT-TVHG2X2	3057260	Rectangular reflective foil, reflection coefficient 0.8, ambient temperature -20 ... +60 °C, 4 sheets
--	-------------	---------	---

