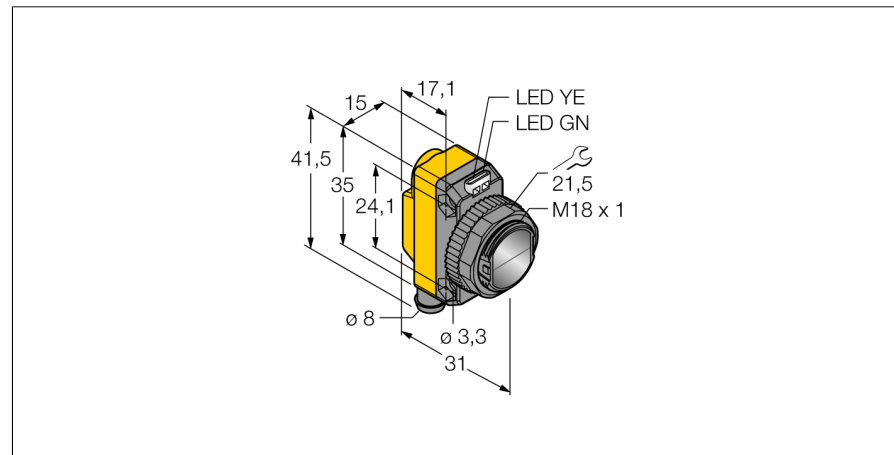
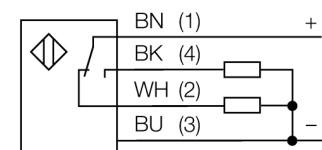


**Photoelectric sensor**  
**Retroreflective laser sensor with polarizing filter**  
**QS18VP6LLPQ7**

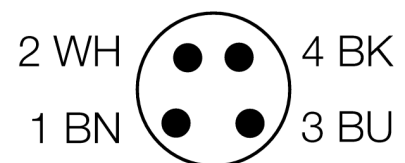


- Male connector, M8 x 1, 4-pin
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer
- Microprism reflector and self-adhesive reflector foil included in delivery

**Wiring diagram**



<b>Type code</b>	QS18VP6LLPQ7
Ident no.	3073245
<b>Operating mode</b>	Retroreflective laser sensor (triangulation) with polarizing filter
Light type	red
Wavelength	650 nm
Laser class	△ 1
Beam diameter	4 at 10000 mm
Range	100...10000 mm
Ambient temperature	-10...+50 °C
<b>Operating voltage</b>	10...30VDC
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 , PNP
Switching frequency	≤ 700 Hz
Readiness delay	≤ 200 ms
<b>Design</b>	rectangular, QS18
Dimensions	31 x 15 x 35 mm
Housing material	plastic, ABS
Lens	plastic, acrylic
Connection	male, Ø 8 mm
Protection class	IP67
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green flashing
Excess gain indication	LED yellow flashing

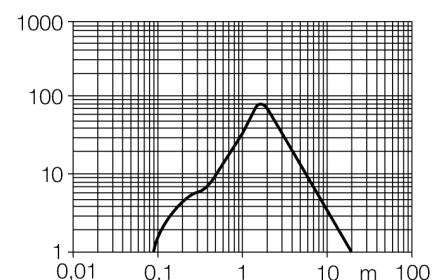


**Functional principle**

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 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.

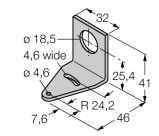
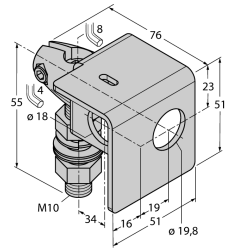
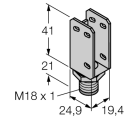
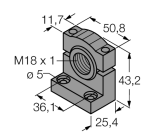
**Excess gain curve**

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

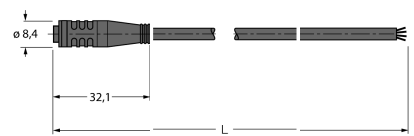


**Photoelectric sensor  
Retroreflective laser sensor with polarizing filter  
QS18VP6LLPQ7**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMB18A	3033200	Mounting bracket, 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, PTB black steel, for sensors with 18 mm thread	

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
PKG4S-2/TEL	6627370	Connection cable, female Ø 8 mm, straight, 4-pin, snap-on type, cable length: 2 m; sheath material: PVC, sheath color: black, cULus approved, RoHS conform, protection class IP67	

**Photoelectric sensor  
Retroreflective laser sensor with polarizing filter  
QS18VP6LLPQ7**

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
PKW4S-2/TEL	6627373	Connection cable, female Ø 8 mm, straight, 4-pin, snap-on type, cable length: 2 m; sheath material: PVC, sheath color: black, cULus approved, RoHS conform, protection class IP67	

**Function accessories**

Type code	Ident no.	Description	Dimension drawing
BRT-51X51BM	3071791	Rectangular reflector, reflection coefficient 2.0, material acrylic, ambient temperature -20 ... +60 °C, microprism geometry	
BRT-TVHG-2X2	3057260	Rectangular reflective foil, reflection coefficient 0.8, ambient temperature -20 ... +60 °C, 4 sheets	