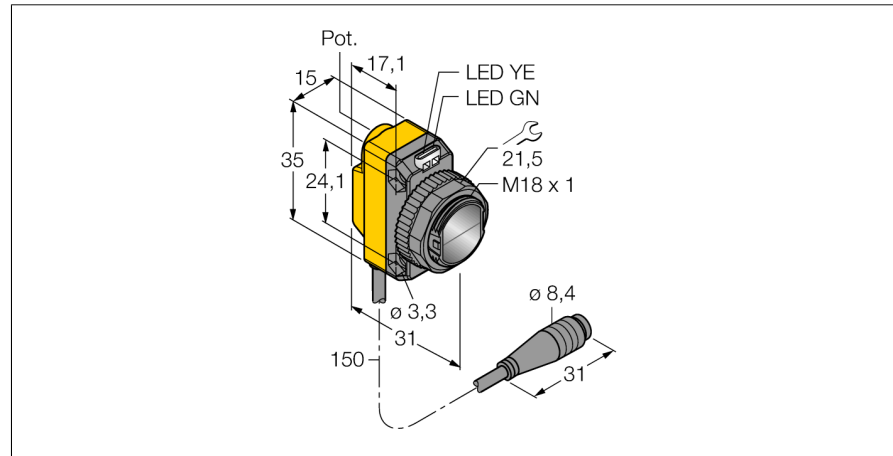


**Photoelectric sensor
diffuse mode laser sensor
QS18VP6LDQ**

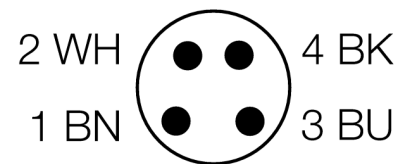


- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- Protection class IP67
- LED all-round visible
- Sensitivity adjusted via potentiometer

Wiring diagram



Type code	QS18VP6LDQ
Ident no.	3073042
Operating mode	Diffuse mode laser sensor (triangulation)
Light type	red
Wavelength	650 nm
Laser class	▲ 1
Beam diameter	1 mm at 300 mm
Range	0...300 mm
Ambient temperature	-10...+50 °C
Operating voltage	10...30VDC
Residual ripple	< 10 % U _s
DC rated operational current	≤ 100 mA
No-load current I ₀	≤ 15 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC , PNP
Switching frequency	≤ 700 Hz
Readiness delay	≤ 200 ms
Design	rectangular, QS18
Dimensions	31 x 15 x 35 mm
Housing material	plastic, ABS
Lens	plastic, acrylic
Connection	cable with connector, PVC, Ø 8 mm
Cable length	0.15 m
Protection class	IP67
MTTF	17 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green flashing
Excess gain indication	LED yellow flashing

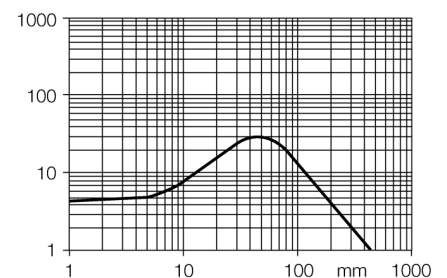


Functional principle

Identical to retro-reflective sensors, emitter and receiver circuitry are incorporated in the same housing of the diffuse mode sensors. However, diffuse mode sensors do not detect the interruption of the light beam but the reflection of the target. A target is detected if it reflects sufficient light back to the receiver. The switching distance of diffuse mode sensors thus largely depends on the reflectivity of the target.

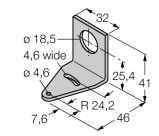
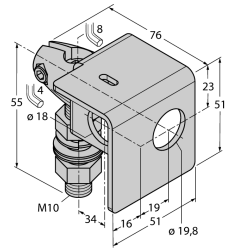
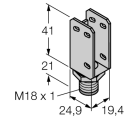
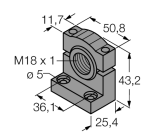
Excess gain curve

Excess gain in relation to the distance

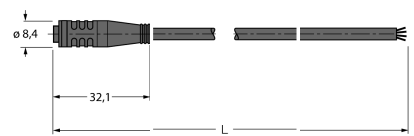


**Photoelectric sensor
diffuse mode laser sensor
QS18VP6LDQ**

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
diffuse mode laser sensor
QS18VP6LDQ**

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	