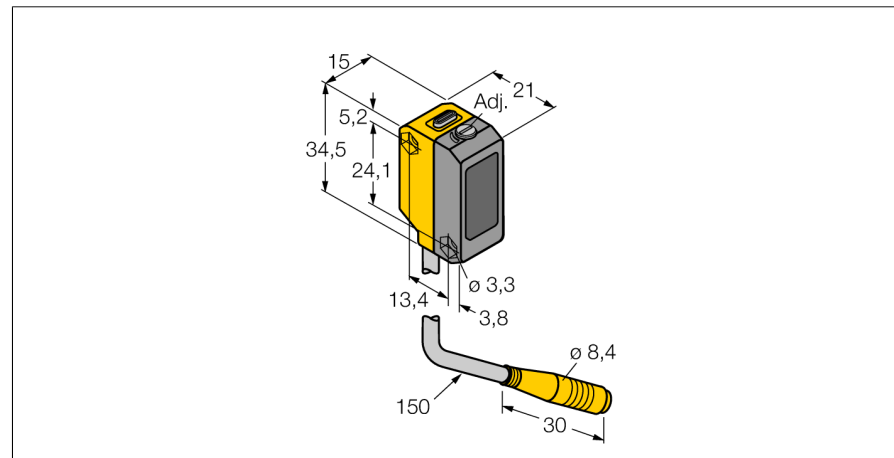


Photoelectric sensor
laser sensor, diffuse mode, with adjustable background suppression
QS18VP6LAF250Q

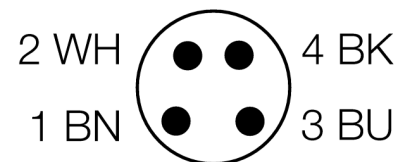


- Cable with male end, 4-pin, PVC, 150 mm, 8 mm
- Protection class IP67
- LED all-round visible
- Cut-off point adjusted via potentiometer

Wiring diagram



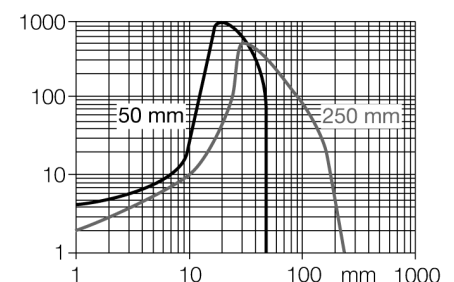
Type code	QS18VP6LAF250Q
Ident no.	3075741
Operating mode	diffuse mode sensor with adjustable background suppression
Light type	red
Wavelength	658 nm
Laser class	△ 2
Beam diameter	1 mm
Range	1...250 mm
Ambient temperature	-10...+50 °C
Operating voltage	10...30VDC
Residual ripple	< 10 % U _{ss}
DC rated 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	21.1 x 15 x 34.5 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	268 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

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements, one for close range and one for long-range. The target position and the photoelectric structure of the sensor determine which of the receiving elements receives the most light. The optics before the receiver is modified with the adjusting screw until the boundary between close and long-range is shifted. This operation determines whether the reflecting object is within or outside the measuring range.

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



**Photoelectric sensor
laser sensor, diffuse mode, with adjustable background suppression
QS18VP6LAF250Q**

Accessories

Type code	Ident no.	Description	Dimension drawing
SMB18A	3033200	Mounting bracket, stainless steel, for sensors with 18 mm thread	
SMBQS18A	3069721	Mounting bracket, stainless steel, for 18 mm thread	
SMBQS18AF	3067467	Mounting bracket, stainless steel, for 18 mm thread	

Wiring accessories

Type code	Ident no.	Description	Dimension drawing
WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	
RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	