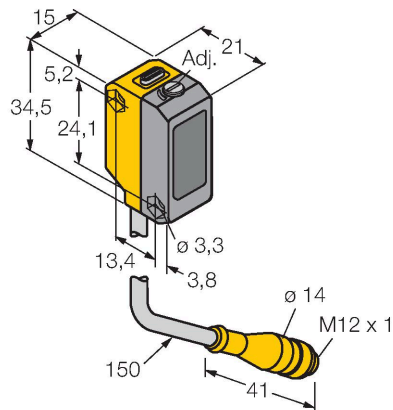


QS18AB6AFF200Q5

Photoelectric Sensor – Diffuse Mode Sensor with Adjustable Foreground Suppression



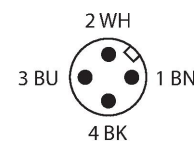
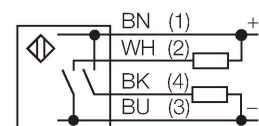
Technical data

Type	QS18AB6AFF200Q5
ID no.	3011479
Optical data	
Function	Proximity switch
Operating mode	Foreground suppression, adjustable
Light type	Red
Wavelength	630 nm
Range	30...200 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
DC rated operational current	≤ 100 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, PNP/NPN
Current output	100 mA
Switching frequency	≤ 700 Hz
Readiness delay	≤ 200 ms
Response time typical	< 2.5 ms
Setting option	Mechanical Screw
Mechanical data	
Design	Rectangular, QS18
Dimensions	21.1 x 15 x 34.5 mm
Housing material	Plastic, ABS
Lens	plastic, Acrylic

Features

- Cable with male end, M12 × 1, 4-pin, PVC, 150 mm
- Protection class IP67
- LED all-round visible
- Cut-off point adjusted via potentiometer
- Operating voltage: 10...30 VDC
- Switching output, bipolar, light operation

Wiring diagram



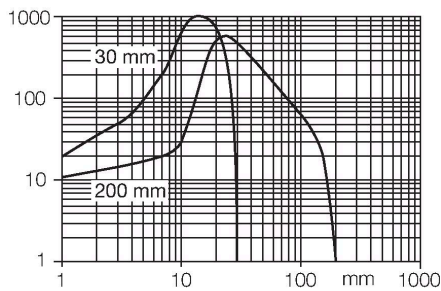
Functional principle

Diffuse mode sensors with foreground and background suppression operate with a single emitter and two receiver elements, one for close range and one for far range. The target position and the photoelectric structure of the sensor determine which receiver element gets the most light. The optics in front of the receiver is modified with the adjusting screw until the boundary between close and far range is shifted. This operation determines whether the reflecting object is in or outside the measuring range.

Technical data

Electrical connection	Cable with connector, M12 × 1, 0.15 m, PVC
Number of cores	4
Ambient temperature	-20...+55 °C
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED, yellow, flashing
Tests/approvals	
MTTF	268 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus

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



Accessories

SMBQS18A

3069721

Mounting bracket, stainless steel, for 18 mm thread

Dimensions: 41, 21, M18 x 1, 24,9, 19,4

SMBQS18AF

3067467

Mounting bracket, stainless steel, for 18 mm thread

Dimensions: 27,6, 12,7, ø 3, ø 4,32, 20,3, 31,8, 15,2

Accessories

Dimension drawing	Type	ID no.	
<p>Dimensions: M12 x 1, ø 15, 14, 11,5, 42, 50, L</p>	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
<p>Dimensions: ø 15, M12 x 1, 14, 26,5, 32, 50, L</p>	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com