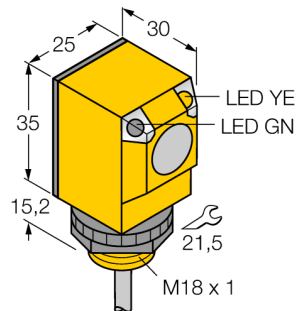


Photoelectric Sensor

Opposed Mode Sensor (Receiver)

Q25SN6R W/30



Type	Q25SN6R W/30
ID	3033867

Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...20000 mm

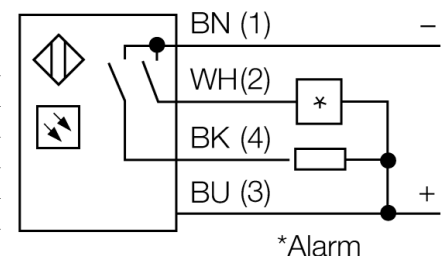
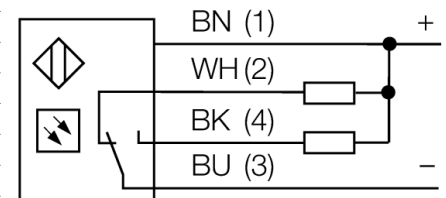
Electrical data	
Operating voltage U_a	10...30 VDC
No-load current I_a	≤ 25 mA
Short-circuit protection	yes/Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, NPN
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA

Mechanical data	
Design	Rectangular, Q25
Dimensions	$\varnothing 18 \times 30 \times 25 \times 50.2$ mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Cable, 9 m, PVC
Number of cores	4
Core cross-section	0.5 mm^2
Ambient temperature	$-40...+70$ °C
Protection class	IP69

Special features	
	Chemical-resistant
	Encapsulated
	Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing

- Cable, 2 m
- Protection class IP67
- Ambient temperature: $-40...+70$ °C
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- NPN switching output, changeover

Wiring Diagram



Functional principle

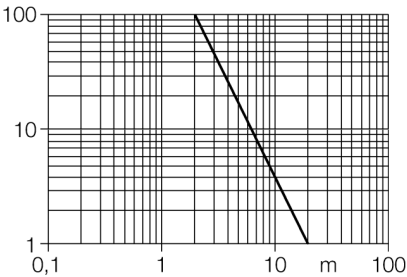
Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremely high excess gain are typical of this

Tests/approvals	
Approvals	CE, UL, CSA

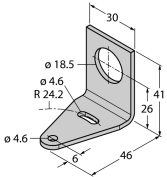
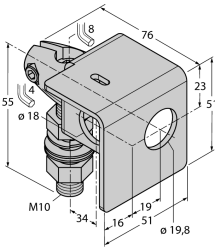
sensing mode, thus allowing operation over larger distances and under difficult conditions.

Excess gain curve

Excess gain in relation to the distance



Accessories

Type code	Ident no.		Dimension drawing
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	
SMB18SF	3052519	Mounting bracket, PBT black, for sensors with 18 mm thread, rotatable	