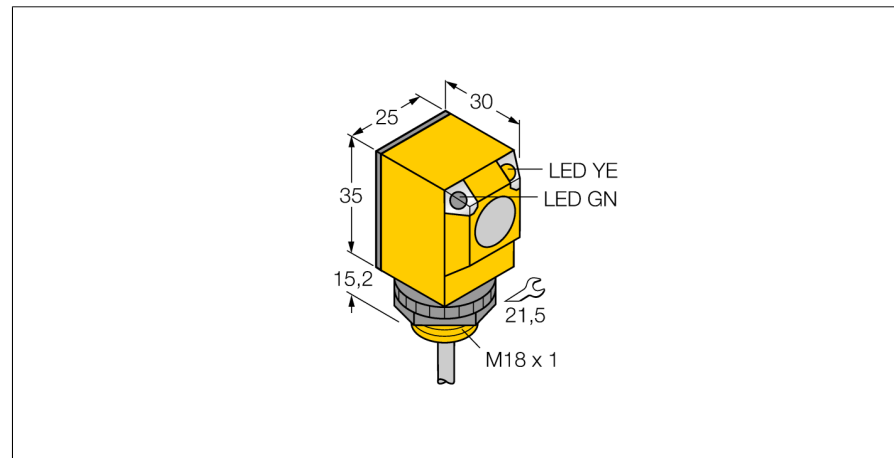


Photoelectric sensor
diffuse mode sensor with fixed-field background suppression
Q25SP6FF100



- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring diagram

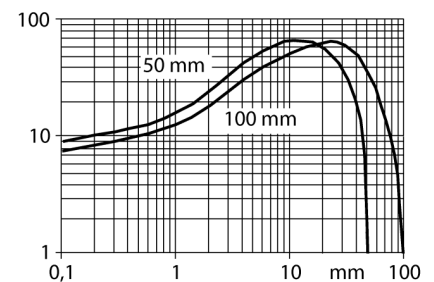


Functional principle

The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

Excess gain curve

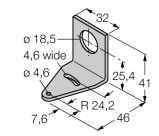
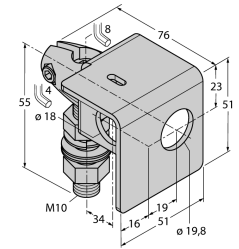
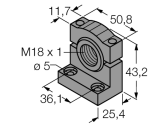
Excess gain in relation to the distance



Type code	Q25SP6FF100
Ident no.	3031932
Operating mode	diffuse mode sensor with fixed-field background suppression
Light type	IR
Wavelength	880 nm
Range	0...100 mm
Ambient temperature	-40...+70 °C
Operating voltage	10...30VDC
No-load current I_0	≤ 35 mA
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	connection programmable, PNP
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
Design	rectangular, Q25
Dimensions	30 x 25 x 50.2 mm
Housing material	plastic, PBT
Lens	plastic, acrylic
Connection	cable
Cable length	2 m
Cable cross section	4 x 0.5 mm ²
Protection class	IP67
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green flashing
Alarm display	LED yellow flashing

**Photoelectric sensor
diffuse mode sensor with fixed-field background suppression
Q25SP6FF100**

Accessories

Type code	Ident no.	Description	Dimension drawing
SMB18A	3033200	Mounting bracket, stainless steel, for sensors with 18 mm thread	 <p>Technical drawing of the SMB18A mounting bracket. Dimensions include: top width 32, hole diameter $\phi 18.5$, hole offset 4.6, hole diameter $\phi 4.6$, hole offset 25.4, hole diameter $\phi 4.6$, hole offset 7.6, and a radius of R 24.2.</p>
SMB18AFAM10	3012558	Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm	 <p>Technical drawing of the SMB18AFAM10 mounting bracket. Dimensions include: top width 76, hole diameter $\phi 18$, hole offset 55, hole diameter $\phi 5$, hole offset 8, hole diameter $\phi 19.8$, hole offset 23, hole diameter $\phi 19.8$, hole offset 19, hole diameter $\phi 19.8$, hole offset 16, hole diameter $\phi 19.8$, hole offset 34, and thread M10.</p>
SMB18SF	3052519	Mounting bracket, PTB black steel, for sensors with 18 mm thread	 <p>Technical drawing of the SMB18SF mounting bracket. Dimensions include: top width 50.8, hole diameter $\phi 18 \times 1$, hole offset 11.7, hole diameter $\phi 5$, hole offset 43.2, hole diameter $\phi 5$, hole offset 36.1, and hole diameter $\phi 5$.</p>