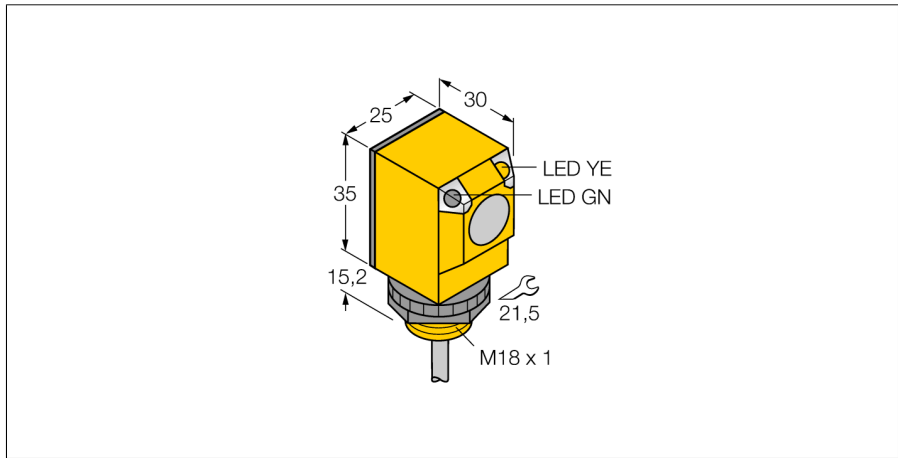
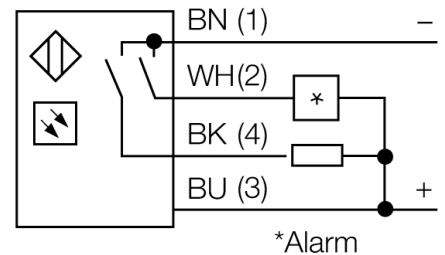
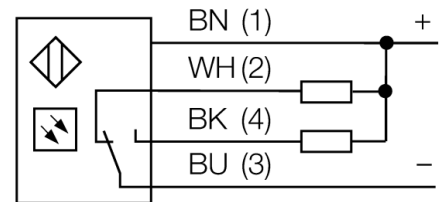


**Photoelectric sensor**  
**diffuse mode sensor with fixed-field background suppression**  
**Q25SN6FF100**



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

**Wiring diagram**



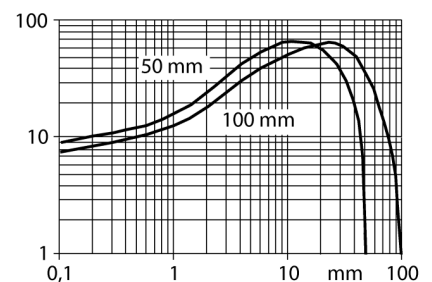
<b>Type code</b>	Q25SN6FF100
Ident no.	3031931
<b>Operating mode</b>	diffuse mode sensor with fixed-field background suppression
Light type	IR
Wavelength	880 nm
Range	0...100 mm
Ambient temperature	-40...+70 °C
<b>Operating voltage</b>	10...30VDC
No-load current I <sub>0</sub>	≤ 35 mA
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	connection programmable, NPN
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
<b>Design</b>	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 <sup>2</sup>
Protection class	IP67
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green flashing
Alarm display	LED yellow flashing

**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.

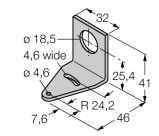
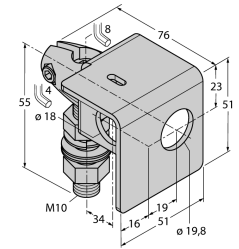
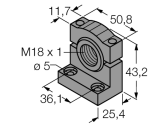
**Excess gain curve**

Excess gain in relation to the distance



**Photoelectric sensor  
diffuse mode sensor with fixed-field background suppression  
Q25SN6FF100**

**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 <math>\phi 18.5</math>, hole offset 4.6, hole diameter <math>\phi 4.6</math>, hole offset 25.4, hole diameter <math>\phi 4.6</math>, hole offset 7.6, radius R 24.2, and bottom width 46.</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 <math>\phi 18</math>, hole offset 55, hole diameter <math>\phi 5</math>, hole offset 8, hole diameter <math>\phi 19.8</math>, hole offset 23, hole diameter <math>\phi 19.8</math>, hole offset 19, hole diameter <math>\phi 19.8</math>, hole offset 16, hole diameter <math>\phi 19.8</math>, hole offset 34, and hole diameter <math>\phi 19.8</math>.</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 <math>\phi 18 \times 1</math>, hole offset 11.7, hole diameter <math>\phi 5</math>, hole offset 43.2, hole diameter <math>\phi 5</math>, hole offset 36.1, and hole diameter <math>\phi 5</math>.</p>