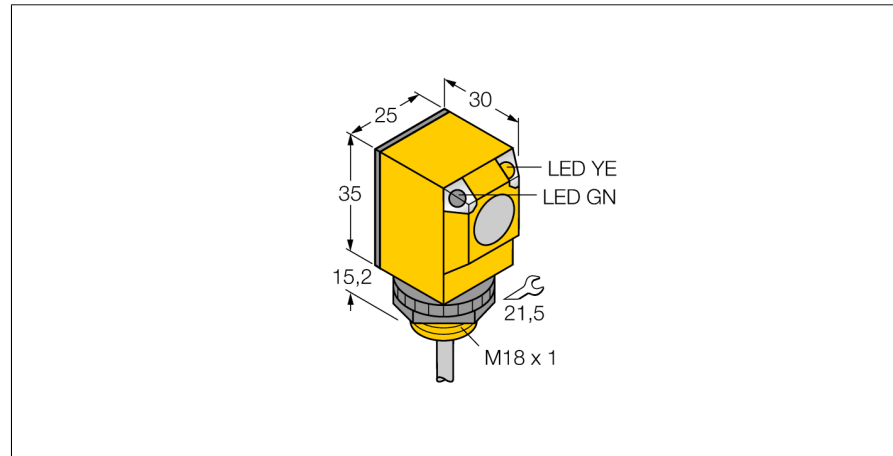


**Photoelectric sensor  
opposed mode sensor (receiver)  
Q25SP6R**



- 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
- PNP switching output, changeover

**Wiring diagram**



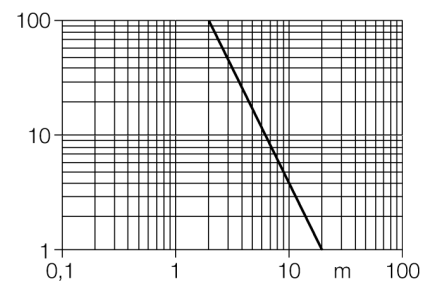
<b>Type code</b>	Q25SP6R
Ident no.	3031928
<b>Operating mode</b>	opposed mode sensor (receiver)
Range	0...20000 mm
Ambient temperature	-40...+70 °C
<b>Operating voltage</b>	10...30VDC
No-load current I <sub>0</sub>	≤ 25 mA
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	connection programmable, PNP
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
<b>Design</b>	rectangular, Q25
Dimensions	30 x 25 x 50.2 mm
Housing material	plastic, PBT
Lens	plastic, Lexan
Connection	cable
Cable length	2 m
Cable cross section	4 x 0.5 mm <sup>2</sup>
Protection class	IP67
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green flashing
Alarm display	LED yellow flashing

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

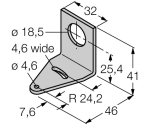
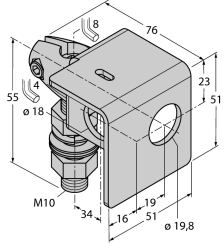
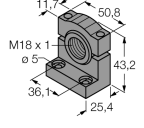
**Excess gain curve**

Excess gain in relation to the distance



Photoelectric sensor  
 opposed mode sensor (receiver)  
 Q25SP6R

**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, 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 <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 a thread of 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 <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 a hole diameter of <math>\phi 25.4</math>.</p>