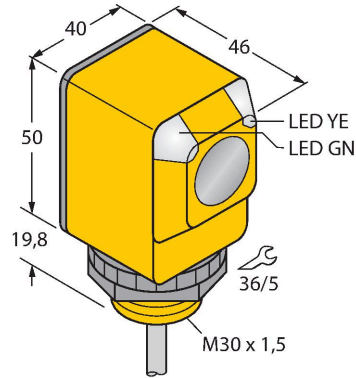


# Q40SP6R

## Photoelectric Sensor – Opposed Mode Sensor (Receiver)



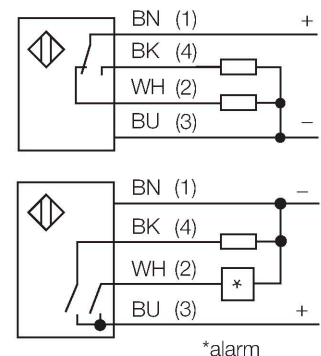
### Technical data

Type	Q40SP6R
ID no.	3032373
<b>Optical data</b>	
Function	Opposed mode sensor
Operating mode	Receiver
Range	0...60000 mm
<b>Electrical data</b>	
Operating voltage	10...30 VDC
No-load current	≤ 25 mA
Short-circuit protection	yes / Cyclic
Reverse polarity protection	yes
Output function	Connection programmable, PNP
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA
<b>Mechanical data</b>	
Design	Rectangular, Q40
Dimensions	Ø 30 x 46 x 40.1 x 40 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.5 mm <sup>2</sup>
Ambient temperature	-40...+70 °C
Protection class	IP67
Special features	Encapsulated

### Features

- 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



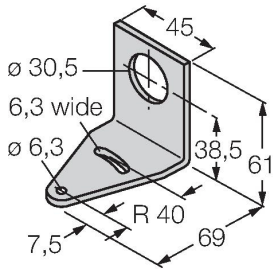
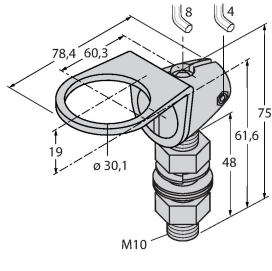
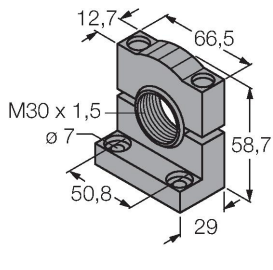
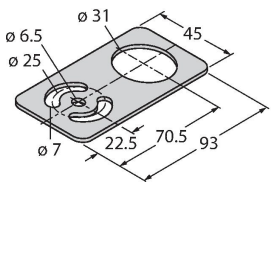
### Functional principle

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

## Technical data

Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
<b>Tests/approvals</b>	
Approvals	CE, UL, CSA

## Accessories

<b>SMB30A</b> 	<b>3032723</b> Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread	<b>SMB30FAM10</b> 	<b>3011185</b> Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm
<b>SMB30SC</b> 	<b>3052521</b> Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable	<b>SMBAMS30P</b> 	<b>3073135</b> Mounting bracket, stainless steel, for sensors with 30 mm thread