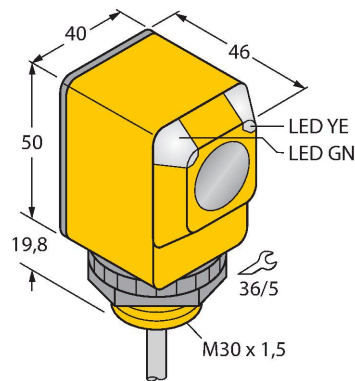# Q40SP6LP W/30
Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter

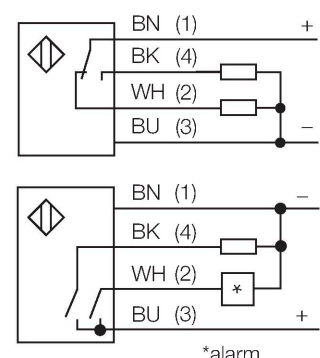

Technical data

Type	Q40SP6LP W/30
ID no.	3033899
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	no
Light type	Red polarized
Wavelength	680 nm
Range	50…6000 mm
Electrical data	
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
Mechanical data	
Design	Rectangular, Q40
Dimensions	Ø 30 x 46 x 40.1 x 69.8 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Polycarbonate
Electrical connection	Cable, 9 m, PVC
Number of cores	4

Features

- Photoelectric sensor
- Retroreflective sensor with polarizing filter
- Selectable light/dark operation or light operation with alarm function
- Operating voltage 10…30 VDC
- PNP/NPN switching output
- Connection cable, 9 m
- Protection class IP68/IP69K
- Max. range 6m
- Operating voltage: 10…30 VDC
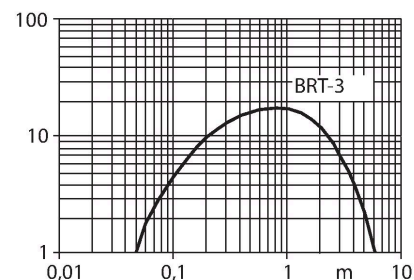- PNP switching output, changeover

Wiring diagram

Functional principle

Retro-reflective sensors incorporate emitter and receiver in a single compact housing. The light beam of the emitter is directed towards a reflector which returns the light back to the receiver. An object is detected when it interrupts this beam. Retro-reflective sensors have a high function gain and good contrast performance. Further it is merely required to install and wire a single device.
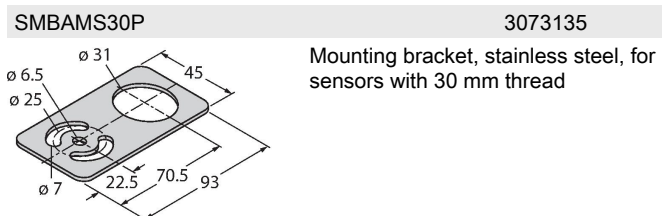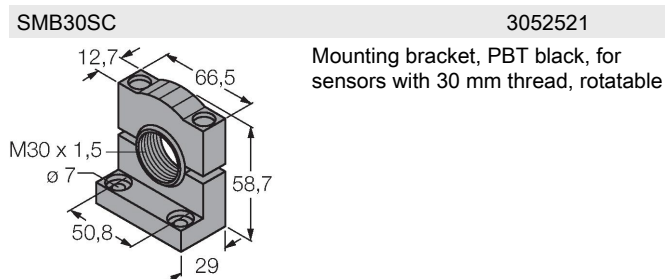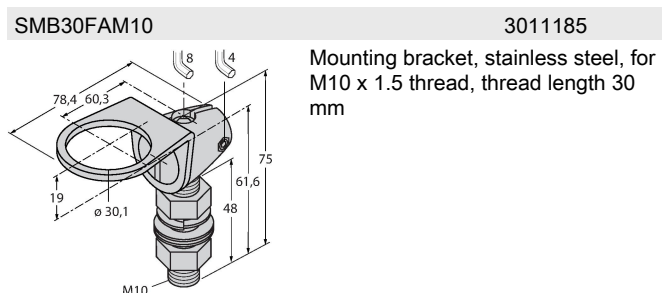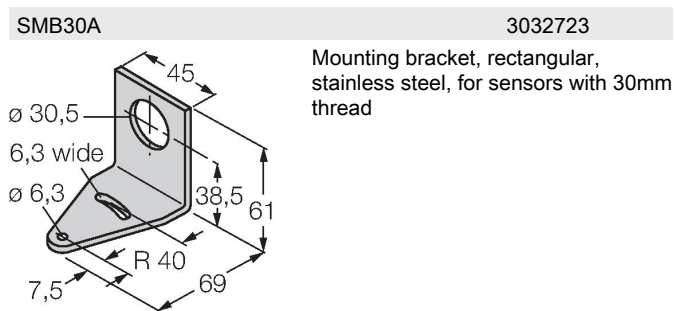
Technical data

Core cross-section	0.5 mm^2
Ambient temperature	-40…+70 °C
Protection class	IP67
Special features	Encapsulated
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, UL, CSA

Excess gain curve
Excess gain in relation to the distance

Accessories

SMB30A	3032723

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

SMB30FAM10	3011185

Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm

SMB30SC	3052521

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

SMBAMS30P	3073135

Mounting bracket, stainless steel, for sensors with 30 mm thread

Accessories

Dimension drawing	Type	ID no.	
	BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20…+60 °C

Ø 5.2 [0.21] 7 [0.28]

Ø 81 [3.19]