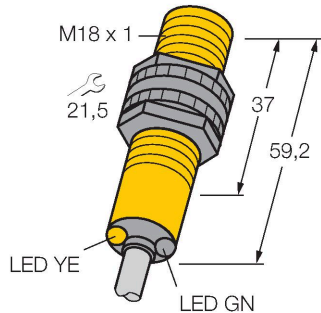


S18SP6LP

Photoelectric Sensor – Retroreflective Sensor with Polarizing Filter



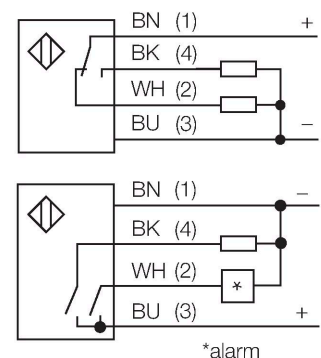
Technical data

Type	S18SP6LP
ID	3032726
Optical data	
Function	Retroreflective Sensor
Operating mode	Polarized
Reflector included in delivery	no
Light type	Red polarized
Wavelength	680 nm
Range	50...2000 mm
Electrical data	
Operating voltage	10...30 VDC
No-load current	≤ 30 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	Tube, S18
Dimensions	Ø 18 x 59.2 mm
Housing material	Plastic, Thermoplastic material
Lens	plastic, Acrylic
Electrical connection	Cable, 2 m, PVC
Number of cores	4

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



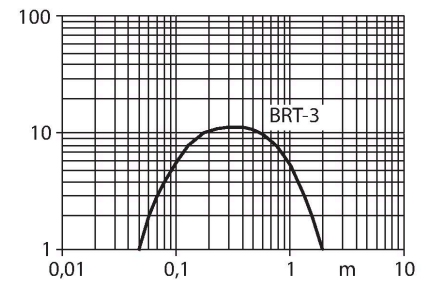
Functional principle

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.

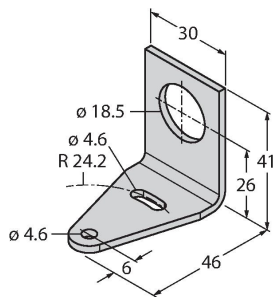
Excess gain curve
Excess gain in relation to the distance

Technical data

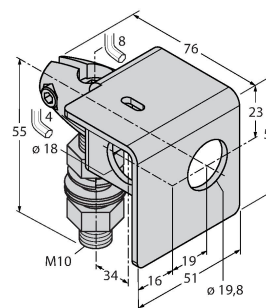
Core cross-section	0.5 mm ²
Ambient temperature	-40...+70 °C
Protection class	IP67 IP69
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED, green, Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing
Tests/approvals	
Approvals	CE, UL, CSA



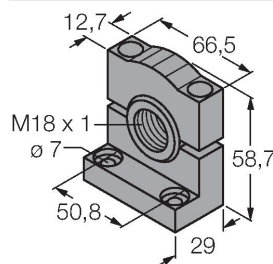
Accessories

SMB18A
3033200


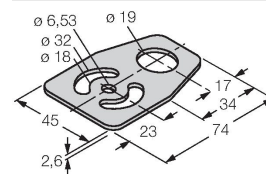
Mounting bracket, rectangular,
stainless steel, for sensors with 18
mm thread

SMB18AFAM10
3012558


Mounting bracket, material VA
1.4401, for M10 x 1.5 thread, thread
length 18 mm

SMB3018SC
3053952


Mounting bracket, PTB black, for
sensors with 18 mm thread

SMBAMS18P
3073134


Mounting bracket, stainless steel, for
sensors with 18 mm thread

Accessories

Dimension drawing	Type	ID	
<p>Technical drawing of a round reflector (BRT-3). The drawing includes a front view (left) and a side view (right). The front view shows a circular reflector with a central mounting hole. Dimensions are given as nominal values in brackets: outer diameter Ø 5.2 [0.21], mounting hole diameter 7 [0.28], and inner diameter Ø 81 [3.19]. The side view shows the reflector's profile, which is a thin, slightly curved disc.</p>	BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C