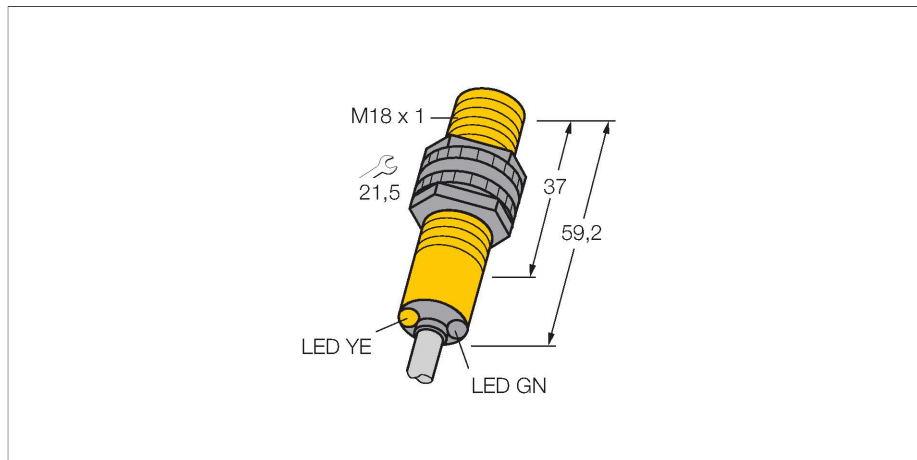


# S18SN6L

## Photoelectric Sensor – Retroreflective Sensor



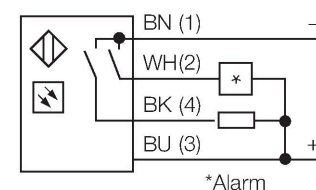
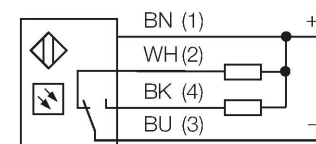
### Technical data

Type	S18SN6L
ID no.	3028556
<b>Optical data</b>	
Function	Retroreflective Sensor
Operating mode	Unpolarized
Reflector included in delivery	no
Light type	IR
Wavelength	950 nm
Range	50...2000 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, NPN
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Response time typical	< 3 ms
Overcurrent release	> 220 mA
<b>Mechanical data</b>	
Design	Threaded barrel, 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
Core cross-section	0.5 mm <sup>2</sup>

### 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
- NPN switching output, changeover

### Wiring diagram



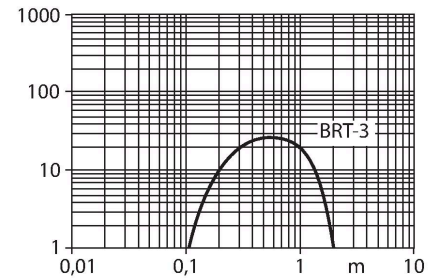
### Functional principle

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

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
<b>Tests/approvals</b>	
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 no.	
<p>Technical drawing of a round reflector. The drawing shows a top view and a side view. The top view is a circle with a diameter of 81 mm (3.19 inches) and a central hole with a diameter of 5.2 mm (0.21 inches). The side view shows a thickness of 7 mm (0.28 inches).</p>	BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20...+60 °C