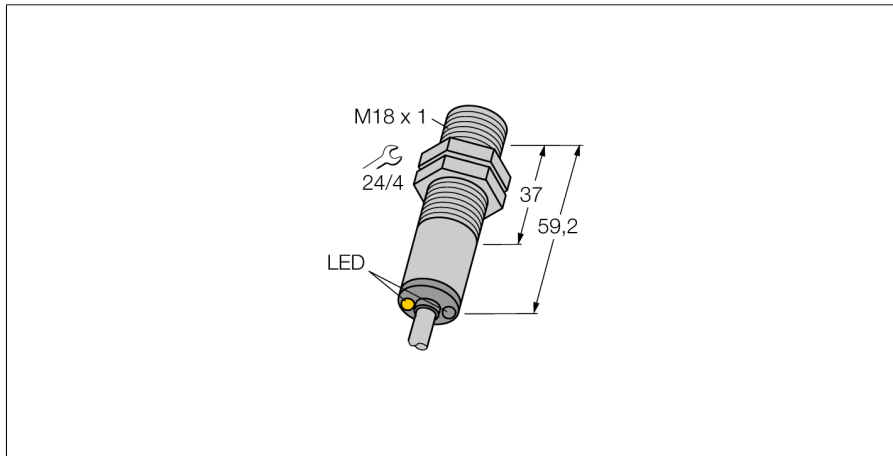
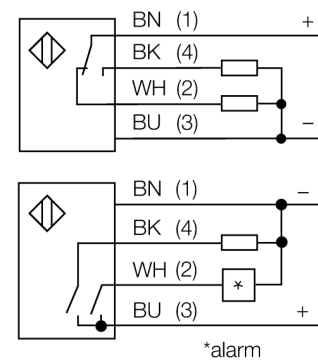


**Photoelectric sensor
retroreflective sensor
M18SP6L**



- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Metal housing
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

Wiring diagram

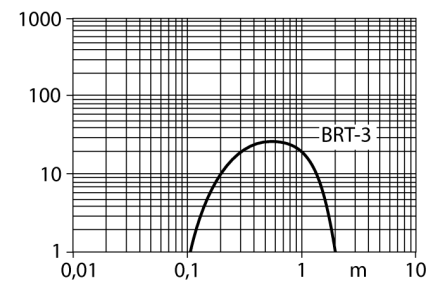


Functional principle

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



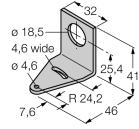
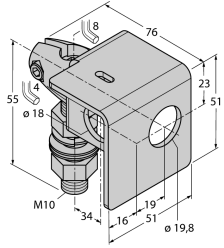
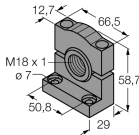
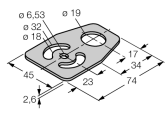
Type code	M18SP6L
Ident no.	3048654
Operating mode	retro-reflective sensor
Light type	IR
Wavelength	950 nm
Range	50...2000 mm
Ambient temperature	-40...+70 °C
Operating voltage	10...30VDC
No-load current I ₀	≤ 25 mA
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	connection programmable, PNP
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
Design	cylindrical/threaded, M18
Dimensions	59.2 mm
Housing diameter	18 mm
Housing material	metal, V2A (1.4305)
Lens	plastic, acrylic
Connection	cable
Cable length	2 m
Cable cross section	4 x 0.5 mm ²
Protection class	IP67
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED green flashing
Alarm display	LED yellow flashing

Photoelectric sensor
retroreflective sensor
M18SP6L

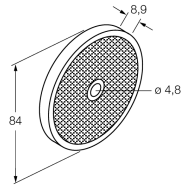
TURCK

Industrial
Automation

Accessories

Type code	Ident no.	Description	Dimension drawing
SMB18A	3033200	Mounting bracket, stainless steel, for sensors with 18 mm thread	 A technical drawing of a stainless steel mounting bracket. It features a circular hole with a diameter of 18.5 mm and a smaller hole with a diameter of 4.6 mm. The bracket has a width of 32 mm, a height of 41 mm, and a mounting hole diameter of 4.6 mm. The distance from the center of the 18.5 mm hole to the edge is 25.4 mm. The bottom edge has a radius of R 24.2 mm and a width of 46 mm. The mounting hole is offset by 7.6 mm from the bottom edge.
SMB18AFAM10	3012558	Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm	 A technical drawing of a mounting bracket made of material VA 1.4401. It is designed for an M10 x 1.5 thread with a length of 18 mm. The bracket has a total width of 76 mm and a height of 23 mm. The mounting hole has a diameter of 18 mm. The distance from the center of the hole to the edge is 34 mm. The bracket has a thickness of 8 mm and a mounting hole diameter of 19.8 mm. The distance from the center of the hole to the bottom edge is 16 mm.
SMB3018SC	3053952	Mounting bracket, PTB black, for sensors with 18 mm thread	 A technical drawing of a PTB black mounting bracket. It has a total width of 66.5 mm and a height of 58.7 mm. The mounting hole has a diameter of 18 mm. The distance from the center of the hole to the edge is 12.7 mm. The bracket has a thickness of 7 mm and a mounting hole diameter of 29 mm. The distance from the center of the hole to the bottom edge is 50.8 mm.
SMBAMS18P	3073134	Mounting bracket, stainless steel, for sensors with 18 mm thread	 A technical drawing of a stainless steel mounting bracket. It has a total width of 74 mm and a height of 2.6 mm. The mounting hole has a diameter of 18 mm. The distance from the center of the hole to the edge is 17 mm. The bracket has a thickness of 2.6 mm and a mounting hole diameter of 19 mm. The distance from the center of the hole to the bottom edge is 45 mm.

Function accessories

Type code	Ident no.	Description	Dimension drawing
BRT-3	3016164	Round reflector, reflection coefficient 1.0, material acrylic, ambient temperature -20 ... +60 °C	 A technical drawing of a round reflector. It has a diameter of 84 mm and a thickness of 8.9 mm. The reflector has a central hole with a diameter of 4.8 mm. The distance from the center of the hole to the edge is 17 mm.