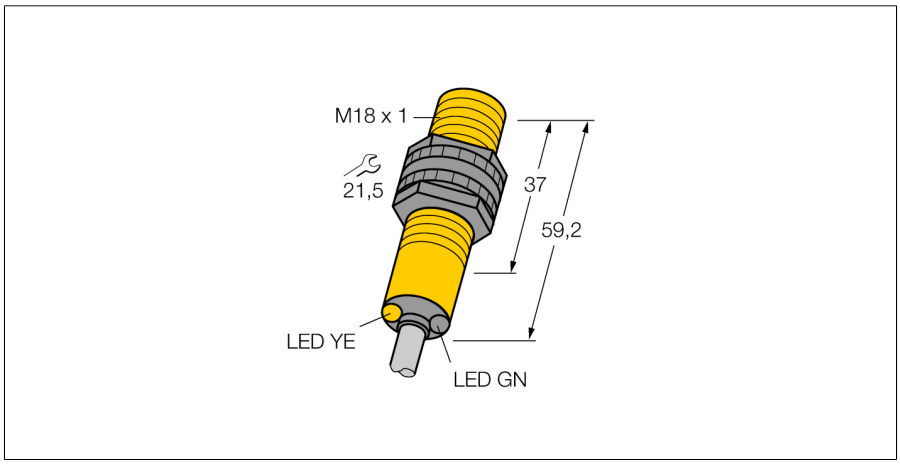
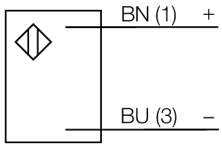
Photoelectric sensor
opposed mode sensor (emitter)
S186E



- **Cable, 2 m**
- **Protection class IP67**
- **Ambient temperature: -40…+70 °C**
- **Operating voltage: 10…30 VDC**

Wiring diagram



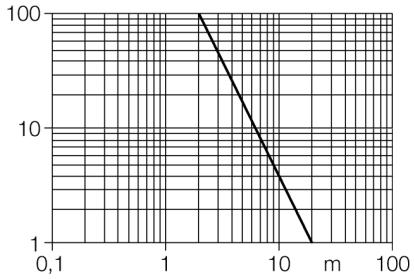
Type code	S186E
Ident no.	3029409
Operating mode	opposed mode sensor (emitter)
Light type	IR
Wavelength	950 nm
Range	0…20000 mm
Ambient temperature	-40…+70 °C
Operating voltage	10…30VDC
Residual ripple	< 10 % U_{ss}
No-load current I_0	≤ 20 mA
Design	cylindrical/threaded, S18
Housing diameter	18 mm
Housing material	plastic, PBT
Lens	plastic, Lexan
Connection	cable
Cable length	2 m
Cable cross section	4 x 0.5 mm²
Protection class	IP67
Power-on indication	LED green

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 extremly 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



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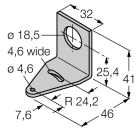
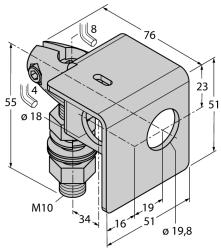
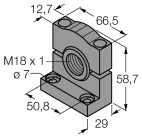
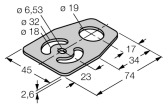
Accessories

Type code	Ident no.	Description	Dimension drawing
SMB18A	3033200	Mounting bracket, 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	

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