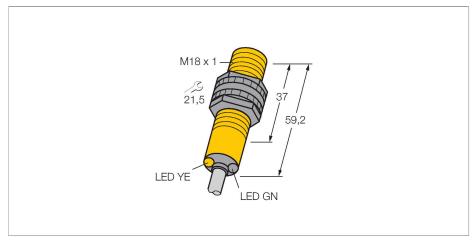


# S186ES Photoelectric Sensor – Opposed Mode Sensor (Emitter)



## Technical data

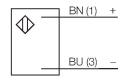
Туре	S186ES
ID	3030151
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	IR
Wavelength	950 nm
Range	020000 mm
Electrical data	
Operating voltage	1030 VDC
Residual ripple	< 10 % U <sub>ss</sub>
Mechanical data	
Design	Threaded barrel, S18
Dimensions	Ø 18 mm
Housing material	Plastic, PBT
Lens	plastic, Lexan
Electrical connection	Cable, 2 m, PVC
Number of cores	4
Core cross-section	0.5 mm <sup>2</sup>
Ambient temperature	-40+70 °C
Protection class	IP67
Special features	Wash down
Power-on indication	LED, Green
Tests/approvals	
Approvals	CE, UL, CSA



## **Features**

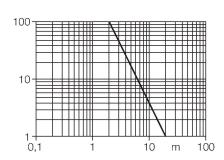
- Cable, 2 m
- ■Protection class IP67
- ■Ambient temperature: -40...+70 °C
- Operating voltage: 10...30 VDC

# Wiring diagram



# 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



## Accessories

SMB18A

0 18.5
0 4.6
R 24.2
26
0 4.6

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

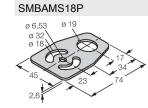
3033200

3053952

3012558 Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

SMB3018SC 12,7 66,5 M18 x 1 Ø 7 50,8 29

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



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

3073134