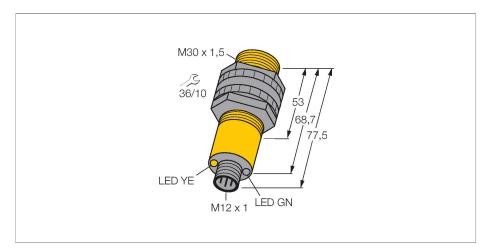
# SMI306EQ Photoelectric Sensor – Opposed Mode Sensor (Emitter)



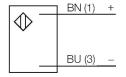
#### Technical data

ID no.   3035268	Туре	SMI306EQ
Function Opposed mode sensor Operating mode Emitter  Light type IR  Wavelength 950 nm  Range 0140000 mm  Electrical data Operating voltage 1030 VDC  Residual ripple <10 % U₂,  Readiness delay ≤0 ms  Response time typical <10 ms  Mechanical data  Design Threaded barrel, S30  Dimensions Ø30 x 77.5 mm  Housing material Plastic, Thermoplastic material  Lens plastic, Acrylic  Electrical connection Connectors, 7/8", PVC  Number of cores 3  Ambient temperature -40+70 °C  Protection class IP67  Special features Encapsulated  Power-on indication LED, Green  Excess gain indication LED  Tests/approvals	ID no.	3035268
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Wavelength       950 nm         Range       0140000 mm         Electrical data       030 VDC         Residual ripple       < 10 % U₅	Operating mode	Emitter
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Housing material  Lens  plastic, Acrylic  Electrical connection  Connectors, 7/8", PVC  Number of cores  3  Ambient temperature  Protection class  IP67  Special features  Encapsulated  Power-on indication  Excess gain indication  LED  Tests/approvals	Design	Threaded barrel, S30
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Number of cores 3  Ambient temperature -40+70 °C  Protection class IP67  Special features Encapsulated  Power-on indication LED, Green  Excess gain indication LED  Tests/approvals	Lens	plastic, Acrylic
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Power-on indication LED, Green  Excess gain indication LED  Tests/approvals	Protection class	IP67
Excess gain indication LED  Tests/approvals	Special features	Encapsulated
Tests/approvals	Power-on indication	LED, Green
•	Excess gain indication	LED
Approvals CE, UL, CSA	Tests/approvals	
	Approvals	CE, UL, CSA

## **Features**

- ■Intrinsically safe(Ex ia)
- Operating temperature: -40 °C ... +70 °C
- Male connector MINI, 3-pin
- ■Protection class IP67
- Operating voltage: 10...30 VDC

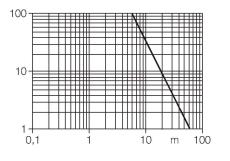
### Wiring diagram



# Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite to 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. The excellent light/dark contrast and the high excess gain allow operation over larger distances and under difficult conditions.

Excess gain curve Excess gain in relation to the distance



ø 30,5 — 6,3 wide ø 6,3 3032723

Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

#### SMB30FAM10

3011185

Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30 mm  $\,$ 



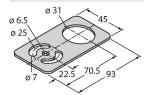
SMB30SC

M30 x 1,5

29

3052521

Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable



SMBAMS30P 3073135

Mounting bracket, stainless steel, for sensors with 30 mm thread