

SMI306ECQ

– Opposed Mode Sensor (Emitter)

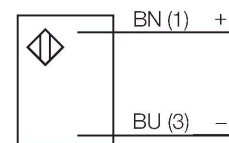
Technical data

Type	SMI306ECQ
ID no.	3035270
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	IR
Wavelength	950 nm
Range	0...140000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
Readiness delay	≤ 0 ms
Response time typical	< 10 ms
Dimensions	Ø 30 mm
Housing material	Plastic, Thermoplastic material
Lens	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	

Features

- 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

