

# M12E W/30 Photoelectric Sensor – Opposed Mode Sensor (Emitter)



## Technical data

Туре	M12E W/30
ID no.	3077216
Optical data	
Function	Opposed mode sensor
Operating mode	Emitter
Light type	Red
Wavelength	660 nm
Range	05000 mm
Electrical data	
Operating voltage	1030 VDC
Residual ripple	< 10 % U <sub>ss</sub>
No-load current	≤ 20 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Readiness delay	≤ 100 ms
Response time typical	< 0.625 ms
Setting option	Potentiometer
Mechanical data	
Design	Threaded barrel, M12
Dimensions	Ø 12 x 67.5 mm
Housing material	Metal, Nickel-plated brass, Nickel-plated
Lens	plastic, PMMA
Electrical connection	Cable, 9 m, PVC
Number of cores	4
Core cross-section	0.35 mm <sup>2</sup>
Ambient temperature	-20+60 °C
Protection class	IP67

#### Features

Cable, PVC, 9 m, 4-wire Protection classes IP67 / IP68 Metal housing LED all-round visible

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**





# Technical data

	IP68
Special features	Encapsulated Wash down
Power-on indication	LED, Green
Error indication	LED, green, Flashing
Excess gain indication	LED
Tests/approvals	
MTTF	46 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE

## Accessories



3011221 Mounting bracket, stainless steel, for M12, M10 x 1.5 thread SMB12MM

3027635 Mounting bracket, stainless steel, for M12



3059606 Mounting bracket; material VA 1.4401, for Q12 & M12 series