SM30RW3RQ1
– Opposed Mode Sensor (Receiver)

Technical data

Type	SM30RW3RQ1
ID no.	3034163
Optical data	
Function	Opposed mode sensor
Operating mode	Receiver
Wavelength	880 nm
Range	0…60000 mm
Operating voltage	20…250 VAC
Readiness delay	≤ 100 ms
Response time typical	< 16 ms
Dimensions	Ø 30 mm
Housing material	Plastic, Thermoplastic material
Lens	Acrylic
Electrical connection	Connectors, 1/2", PVC
Number of cores	4
Ambient temperature	-40…+70 °C
Protection class	IP67
Special features	Encapsulated
Excess gain indication	LED
Tests/approvals	

Features

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