Baumer
Passion for Sensors

Radar retro-reflective sensors

RR30.RAQ0-GGPI.9VF

Article number: 11234883

Overview

- Reliable detection of objects from 0 to 80 m
- Two independent switching outputs (push-pull)
- Narrow beam cone (+/- 3°)
- Fast response time of only 14 ms
- Simple installation thanks to the integrated setting aid or IO-Link
- Many additional functions: counter, diagnostic data, filtering of unwanted objects, etc.

Picture similar

Technical data

General data	
Scanning range Sd	0 … 80 m
Reflector position Sde	0.5 … 80 m
Adjusting range reflector (operating range)	± 20 % Sde
Response time ton	< 14 ms
Release time toff	< 14 ms
Adjustment	IO-Link/external
Alignment aid	Light indicator flashing
Light indicator	LED yellow
Power on indication	LED green
Carrier frequency	122 … 123 GHz
Band width	1 GHz
Range resolution	500 mm
Modulation type	FMCW
MTTF	> 126 years
Transmitting power (EIRP)	< +20 dBm
Aperture angle	6 °
Approvals/certificates	Ecolab FCC / CFR-47 part 15 (USA) RSS-210 Issue 10 (Canada) EN 305 550-1 V.1.2.1 (European Union) EN 305 550-2 V.1.2.1 (European Union)
Electrical data	
Voltage supply range +Vs	12 … 30 VDC
Current consumption max. (no load)	220 mA
Voltage drop Vd	< 2.5 VDC
Short circuit protection	Yes
Reverse polarity protection	Yes, Vs to GND
Output circuit	IO-Link / push-pull

Electrical data	
Output current	< 100 mA < 50 mA (out 2)
Mechanical data	
Type	Cylindrical threaded
Housing material	Stainless steel 1.4404 (V4A)
Material (sensing face)	Plastics (PEI)
Width / diameter	30 mm
Height / length	107 mm
Connection types	Connector M12
Ambient conditions	
Operating temperature	-40 … +65 °C
Storage temperature	-40 … +85 °C
Protection class	IP 68/69K & proTect+
Communication interface	
Interface	IO-Link V1.1
Baud rate	230,4 kBaud (COM 3)
Cycle time	≥ 4 ms
Process data length	208 Bit
Process data structure	Bit 0 = SSC1 (distance) Bit 1 = SSC2 (distance) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 8-15 = scale factor Bit 16-47 = 32 Bit measurement Bit 48-207 = 5 Peak (32 Bit Daten)
IO-Link port type	Class A

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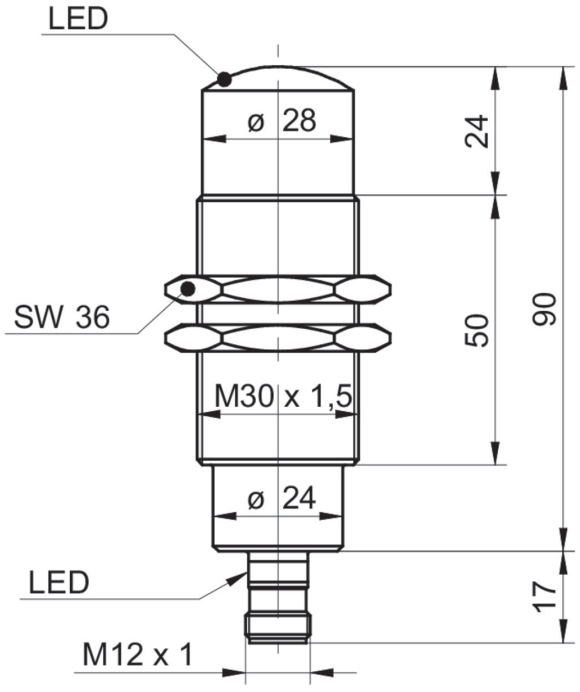
Technical data

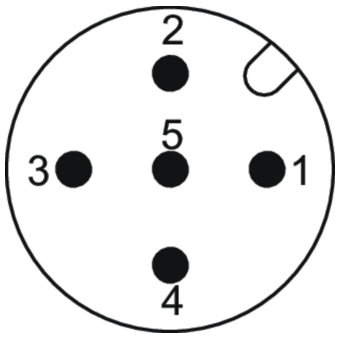
Communication interface	
Additional data	Distance Counting cycles Operating hours Boot cycles Operating voltage Device temperature Histograms
Adjustable parameters	Switching hysteresis Reflector teach conditions Detecting range Time filters Output logic Counter Alarm Switching point LED status indicators Deactivate the sensor element Find Me function

Communication interface	
Predefined preference profiles	Reflector – Standard Reflector - Amplitude Look-Through Dual-reflector

Dimension drawing



Pin assignment



Connection diagram