Baumer
Passion for Sensors

Ultrasonic retro-reflective sensors

U300.R50-GP1J.72N

Article number: 11219508

Overview

- Most reliable object detection through barrier principle
- Flexible parameterization and additional diagnostic data thanks to IO-Link
- High performance in compact housing

Picture similar

Technical data

General data	
Scanning range Sd	0 … 500 mm
Reflector position Sde	15 … 500 mm
Adjusting range reflector (operating range)	± 2,5 % Sde
Adjusting range reflector (limit range)	± 5 % Sde
Version	IO-Link
Repeat accuracy	0.5 mm
Response time ton/toff min	< 16 ms
Response time ton/toff standard	< 40 ms
Temperature drift	< 2 % Sde
Power-up drift	Compensated after 15 min.
Sonic frequency	290 kHz
Adjustment	qTeach, line-Teach, IO-Link
Alignment aid	Light indicator flashing
Light indicator	LED yellow
Power on indication	LED green
Alignment measuring axis	< 2°
Electrical data	
Voltage supply range +Vs	12 … 30 VDC
Current consumption typ.	35 mA
Output circuit	Push-pull
Output current	< 100 mA
Voltage drop Vd	< 3 VDC
Residual ripple	< 10 % Vs
Short circuit protection	Yes
Reverse polarity protection	Yes
Communication interface	
Interface	IO-Link V1.1

Communication interface	
Baud rate	38,4 kBaud (COM 2)
Cycle time	≥ 8 ms
Process data length	48 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
IO-Link port type	Class A
Additional data	Distance Excess gain Operating cycles Operating hours Boot cycles Operating voltage Device temperature Histograms
Adjustable parameters	Time filters LED status indicators Output logic Output circuit Counter Beam forming Deactivate the sensor element Find Me function
Mechanical data	
Type	Rectangular
Housing material	Plastic (ASA, PMMA)
Width / diameter	12.9 mm
Height / length	32.2 mm
Depth	23 mm

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Mechanical data

Connection types	Connector M8 4 pin

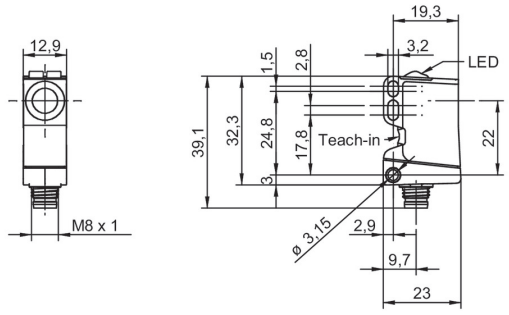
Ambient conditions

Operating temperature	-25 … +65 °C

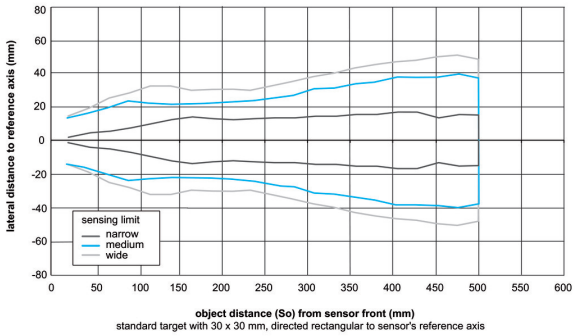
Ambient conditions

Storage temperature	-40 … +75 °C
Protection class	IP 67

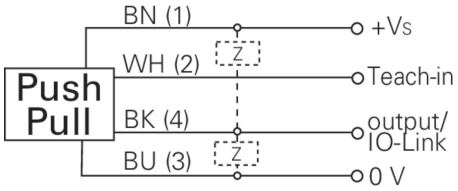
Dimension drawing



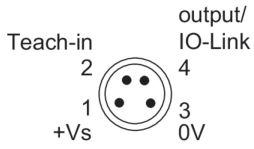
Typical sonic cone profile



Connection diagram



Pin assignment



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