Product data sheet
reach WA

Radar for collision avoidance & object detection

ONDOSENSE
reach

Technical Data

General data	
Radar frequency (FMCW)	122 - 123 GHz
Radiation power	EIRP < 100 mW
MTTF	> 125 years
Opening angle	± 8°
Measurement range	0.15 - 15.00 m
Measurement rate	100 Hz
Sensing/ protection zones	up to 4 - via switching outputs
Measurement precision	± 2 mm

Mechanical data	
Width / Diameter	30 mm
Length	92 mm
Housing material	Stainless steel grade 1.4404
Lens material	PTFE
Connection	M12, 8-pin, a-coded connector
Weight	167 g
Shock test	EN 60068-2-27
Schock resistance	100 g (11ms)

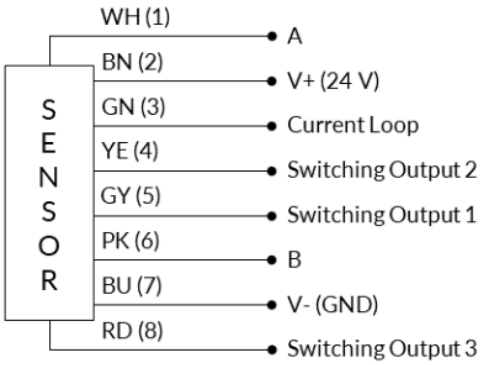
Environmental data	
Protection class	IP67/IP69K
Operating temperature	-40 ...+ 70°C
Storage temperature	-40 ...+ 85°C
EMC	IEC 61496-1, IEC 61000-6-2, IEC 61000-6-4

Electrical data	
Power supply	24.0 V DC (3.5 - 40 V)[1]
Power consumption	80 mA (at 24 V DC)
Power dissipation	2.4 W
Reverse voltage protection	yes
Communication interface	RS485 (half-duplex mode)
Switching outputs	3x push-pull (PNP/NPN)
Analog outputs	Current loop (4 - 20 mA)

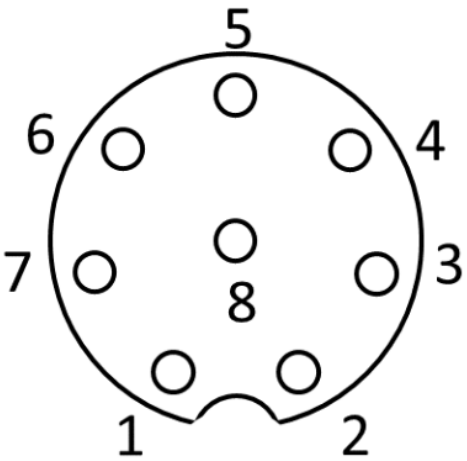
[1]Switching outputs (10V - 40V) and Analog output (8V - 40V)

Connection

V+ (24 V) and V- (GND) are used for the power supply. The pins A and B are used for RS485 data exchange. These 4 pins are needed for operating the sensor with RS485 communication. The sensor can be connected with an 8-pin a-coded M12 cable. Additional pins are the 3 switching outputs and the current loop.



Pinout diagram sensor



M12 a-coded male pin layout

Dimensional Drawings

The lens geometry has been abstracted. All offered lenses will fit within the envelope.