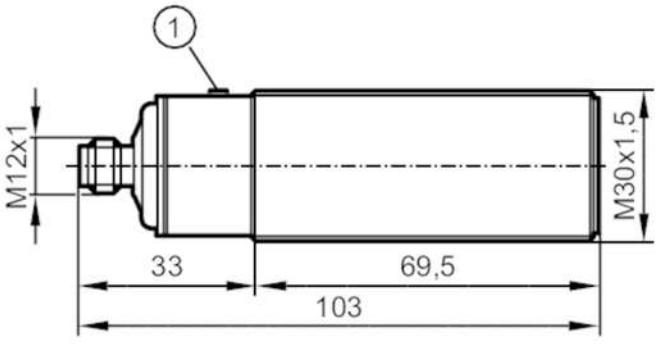
UIT509

Ultrasonic sensor

UIA03500HOKG/US



1 teach button

Product characteristics		
Electrical design		NPN
Output function		normally open / normally closed; (parameterisable)
Sensing range	[mm]	250...3500; (Target: 200 x 200 mm)
Housing		threaded type
Dimensions	[mm]	M30 x 1.5 / L = 103
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	< 30
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 0.3
Converter frequency	[kHz]	112
Inputs / outputs		
Number of inputs and outputs		Number of digital outputs: 2
Outputs		
Total number of outputs		2
Electrical design		NPN
Number of digital outputs		2
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V]	2.2
Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	1
Short-circuit protection		yes
Overload protection		yes
Detection zone		
Sensing range	[mm]	250...3500; (Target: 200 x 200 mm)
Blind zone	[mm]	250

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Angle of aperture cylindrical [°]	12; (±2)	
Max. deviation from the 90° angle sensor/object [°]	± 4	
Accuracy / deviations		
Temperature compensation	yes	
Hysteresis [%]	< 3	
Switch point drift [%]	-5...5	
Repeatability	1 %	
Resolution [mm]	3	
Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of min. 20 minutes	
Operating conditions		
Ambient temperature [°C]	-20...70	
Storage temperature [°C]	-30...80	
Protection	IP 67	
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V
	EN 55011	Class A
Vibration resistance	EN 60068-2-6 Fc	(10-55) Hz 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz
Shock resistance	EN 60068-2-27 Ea	30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
MTTF [years]	120	
UL approval	Ta	-20...70 °C
	power supply	Class 2
	File number UL	E174191
Mechanical data		
Weight [g]	223.5	
Housing	threaded type	
Dimensions [mm]	M30 x 1.5 / L = 103	
Thread designation	M30 x 1.5	
Materials	stainless steel (316L/1.4404); PA; epoxy glass ceramics	
Tightening torque [Nm]	100	
Displays / operating elements		
Display	switching status	2 x LED, yellow
	echo	1 x LED, green
Teach function	yes	
Accessories		
Items supplied	lock nuts: 2, stainless steel	
Remarks		
Remarks	operating voltage "supply class 2" according to cULus	
Pack quantity	1 pcs.	

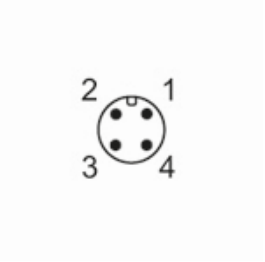
UIT509

Ultrasonic sensor

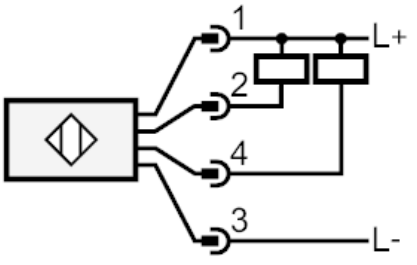
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Electrical connection

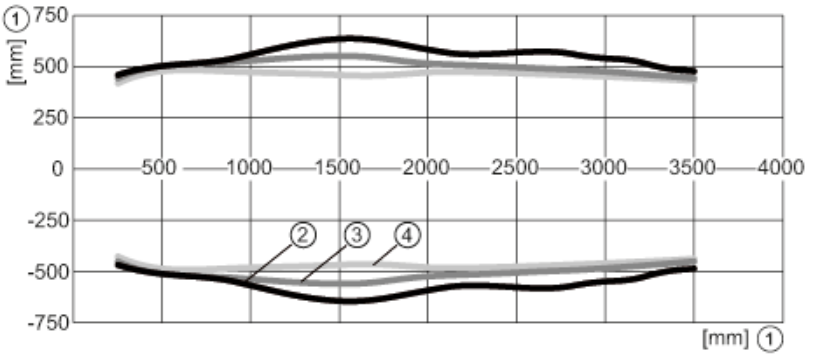
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



1 distance
2 Standard sound beam
3 Medium sound beam
4 Narrow sound beam