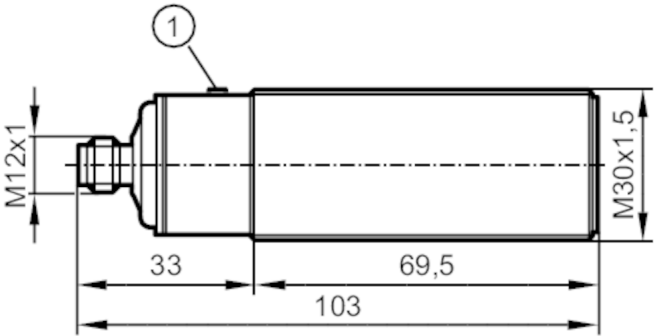




Ultrasonic sensor

UIA03500GOKG/IO-Link/US



1 teach button



Product characteristics		
Electrical design		PNP
Output function		normally open / normally closed; (parameterisable)
Sensing range	[mm]	250...3500; (Target: 200 x 200 mm)
Communication interface		IO-Link
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	PNP	
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)



Ultrasonic sensor

UIA03500GOKG/IO-Link/US

Blind zone	[mm]	250
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	

Software / programming

Parameter setting options	hysteresis / window; second switch point; Switch-on and switch-off delay; switch-on operations; Teach function; light-on/dark-on mode	
---------------------------	---	--

Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Device Identification; Multi-channel, two setpoint switching sensor, type 0 Generic Profiled Sensor; Process Data Variable; Device Diagnosis; Teach Channel	
SIO mode	yes	
Required master port type	A	
Min. process cycle time	[ms]	3.2
IO-Link process data (cyclical)	function	bit length
	process value	16
	device status	4
	binary switching information	2
IO-Link functions (acyclical)	application specific tag; operating hours counter	
Supported DeviceIDs	Type of operation	DeviceID
	default	1093
Note	For further information please see the IODD PDF file under "Downloads"	

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

UIT500



Ultrasonic sensor

UIA03500GOKG/IO-Link/US

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]		225.5
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

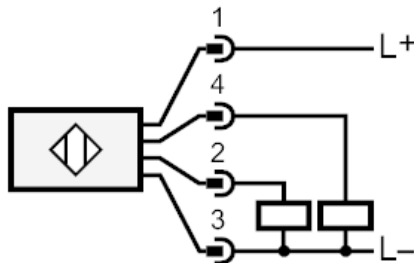
Remarks	
Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

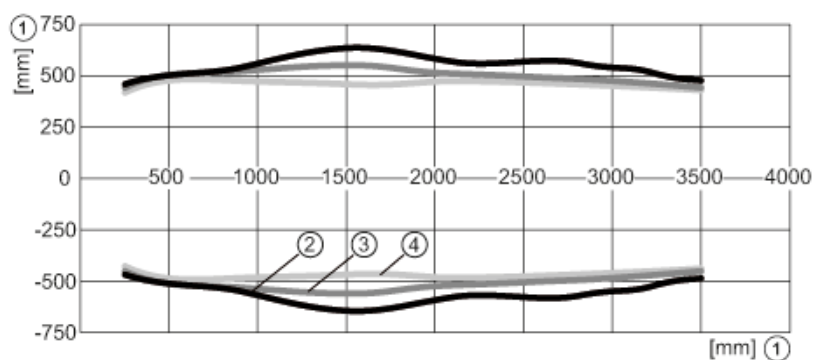
Connector: 1 x M12; coding: A



Connection



Diagrams and graphs



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