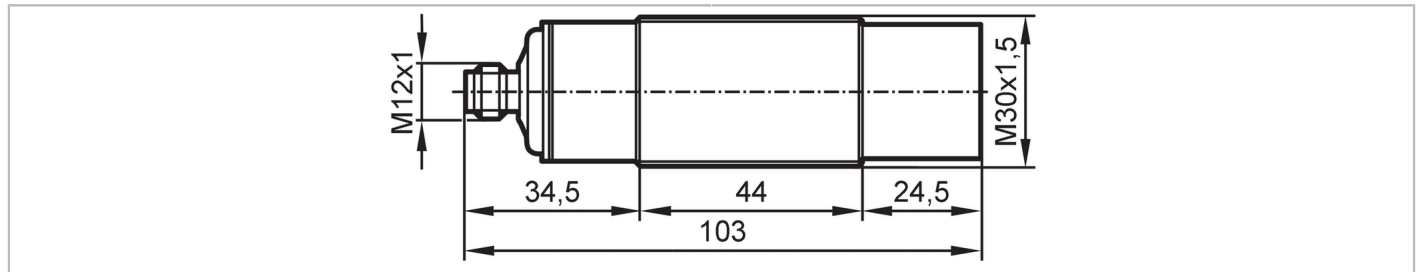




Full-metal ultrasonic sensor

UID02500GOKG/IO-Link/US



Product characteristics		
Electrical design		PNP/NPN; (configurable)
Output function		normally open / closed; (configurable)
Sensing range	[mm]	250...2500; (Target: 400 x 400 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]	< 50
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 0.5
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/NPN; (configurable)
Number of digital outputs		2
Output function		normally open / closed; (configurable)
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
Monitoring range		
Sensing range	[mm]	250...2500; (Target: 400 x 400 mm)
Blind zone	[mm]	250
Angle of aperture cylindrical	[°]	12; (±2)
Max. deviation from the 90° angle sensor/object	[°]	± 4



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Accuracy / deviations		
Temperature compensation	yes	
Hysteresis [%]	< 3	
Temperature drift	± 5 %; (of the final value of the measuring range)	
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 - SSP 3.1	Measuring Sensor
	Common - I&D	Identification and Diagnosis
	Function	Multiple switching signal
	Function	Teach channel
SIO mode	yes	
Required master port class	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	1388
Note	For further information please see the IODD PDF file at "Downloads"	
Operating conditions		
Ambient temperature [°C]	-10...60	
Storage temperature [°C]	-15...65	
Protection	IP 65; IP 67; IP 68; IP 69K	
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, vibration duration 5 min., 30 min. per axis with 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]	108	

UIT300



Full-metal ultrasonic sensor

UID02500GOKG/IO-Link/US

UL approval	Ta	-10...60 °C
	Enclosure type	Type 1
	voltage supply	Class 2
	File number UL	E174191

Mechanical data		
Weight	[g]	257.1
Housing		Threaded type
Dimensions	[mm]	M30 x 1.5 / L = 103
Thread designation		M30 x 1.5
Material		stainless steel (1.4404 / 316L); LED window: TPU (urethane); potting: PUR
Tightening torque	[Nm]	100

Displays / operating elements		
Display	Switching status	1 LED, yellow

Accessories		
Items supplied	lock nuts: 2 x M30, stainless steel	
	damping plates: 2, EPDM	

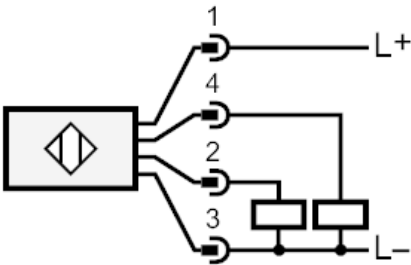
Remarks		
Pack quantity	1 pcs.	

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 4



Connection



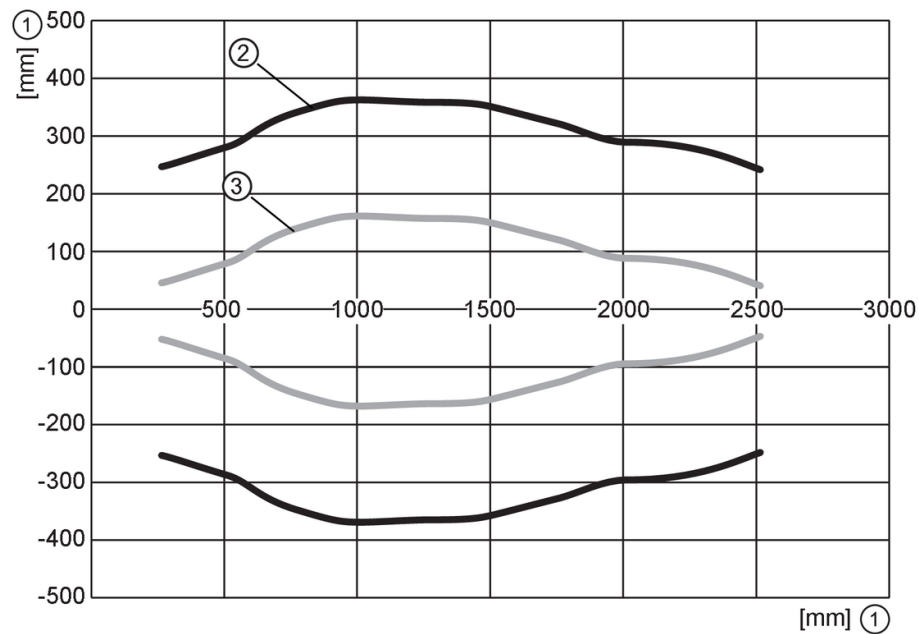


Full-metal ultrasonic sensor

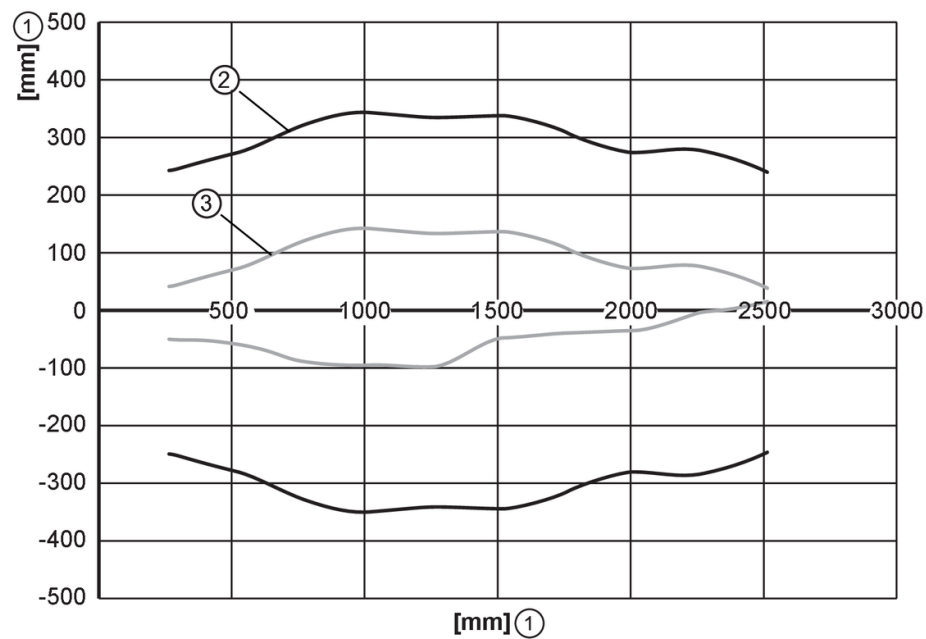
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Diagrams and graphs

Standard sound cone



Medium sound cone



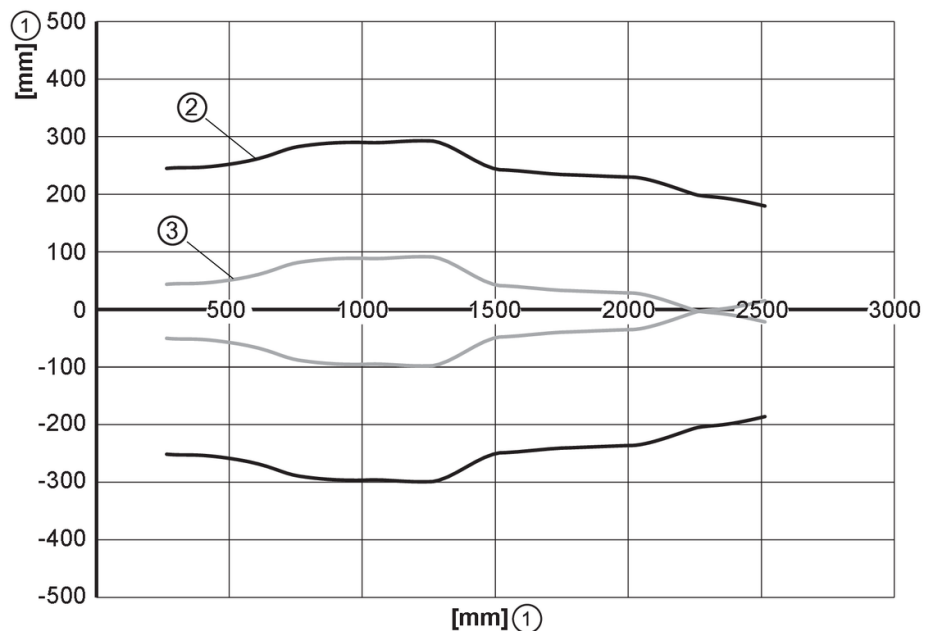
UIT300

Full-metal ultrasonic sensor

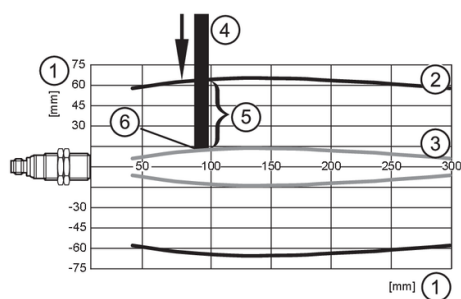
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Narrow sound cone



Function



- 1: Distance
- 2: Monitoring range
- 3: switch-on/switch-off graph
- 4: Target 400 x 400 mm
- 5: 50 % of the target in the detection zone
- 6: Set point