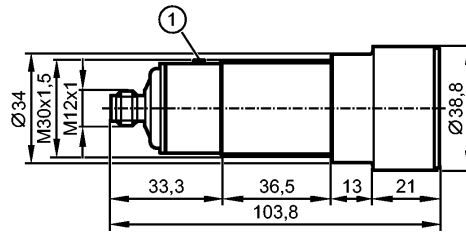




UIT505

UIA06000E2KG/IO-Link/US

Ultrasonic sensors



1: teach button



Product characteristics

Ultrasonic diffuse-reflection sensor

Threaded type

M30 x 1

Connector

Teach function

Electrical data

Electrical design		DC PNP
Operating voltage	[V]	10...30 DC; "supply class 2" to cULus.
Current consumption	[mA]	< 30
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 0.3
Converter frequency	[kHz]	75

Outputs

Output function		1 x NO / NC programmable + 1 x voltage output
Current rating	[mA]	100
Voltage drop	[V]	2.2
Short-circuit protection		yes
Overload protection		yes
Analogue output		
voltage output	[V]	0...10
Min. load resistance	[Ω]	3000
Switching frequency	[Hz]	1

Detection range

Sensing range	[mm]	6000
blind zone	[mm]	350

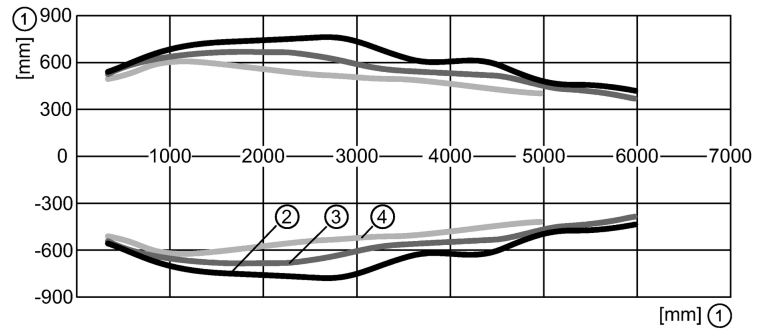


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Ultrasonic sensors

Response curve



1: Distance; 2: standard sound cone; 3: medium sound cone; 4: narrow sound cone

Angle of aperture	[°]	18 ± 2
Max. deviation from the 90° angle sensor / object	[°]	± 4

Accuracy / deviations

Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of ≥ 20 minutes	
Temperature compensation		yes
Hysteresis	[%]	< 1
Switch-point drift	[%]	± 5
Linearity error	[%]	1
Resolution	[mm]	< 3
Repeatability	[%]	1

Response times

Response time	[ms]	< 600
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Interfaces

IO-Link device		
Transfer type		COM2 (38.4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
IO-Link device ID		1098 d / 00 04 4A h
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 class		A
Min. process cycle time	[ms]	3.2

Environment

Ambient temperature	[°C]	-20...70
Storage temperature	[°C]	-30...80
Protection		IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD:	4 kV CD / plastics 8 kV AD / metal
	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
	MTTF	[Years]



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Ultrasonic sensors

Vibration resistance		(10-55) Hz 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz
	EN 60068-2-6 Fc	
Shock resistance		30 g (11 ms half sine; 3 shocks in each direction along the three coordinate axes)
	EN 60068-2-27 Ea	

Mechanical data

Housing materials	stainless steel (316L / 1.4404); PA; Epoxid-Glaskeramik	
Weight	[kg]	0.242

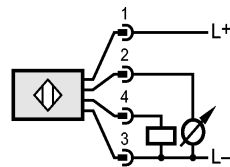
Displays / operating elements

Display	Switching status 2 LED yellow Echo LED 1 LED green	
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Electrical connection

Connection	M12 connector	
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Wiring



4: IO-Link

Accessories

Accessories (included)	2 fixing nuts, stainless steel	
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Remarks

Pack quantity	[piece]	1
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