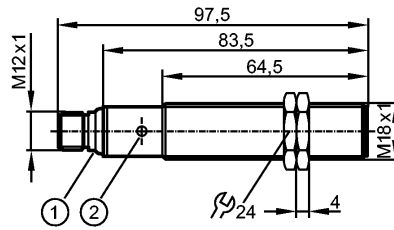




UGT511

UGA01600E2KG/IO-LINK/US

Ultrasonic sensors



- 1: LEDs
- 2: teach button



Product characteristics

Ultrasonic diffuse-reflection sensor
Threaded type
M18 x 1
Quick disconnect
Teach function

Electrical data

Electrical design	DC PNP
Operating voltage [V]	10...30 DC; cULus - Class 2 source required
Current consumption [mA]	55
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	< 0.3
Converter frequency [kHz]	230

Inputs

Teach	yes
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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
Analog output	
voltage output [V]	0...10
Min. load resistance [Ω]	3000
Switching frequency [Hz]	3

Monitoring range

Sensing range [mm]	1600
blind zone [mm]	150

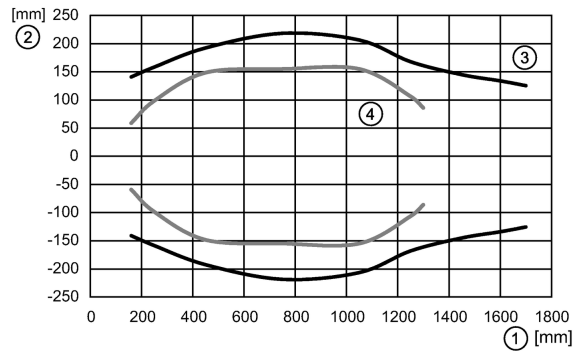


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Ultrasonic sensors

Response curve



1: Distance; 2: Sound beam; 3: Target 200 x 200 mm; 4: Target Ø 25 mm

Angle of aperture	[°]	7 ± 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	[%]	± 2
Linearity error	[%]	1
Resolution	[mm]	< 3
Repeatability	[%]	0.5

Interfaces

IO-Link Device		
Transfer type		COM2 (38.4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Smart Sensor: Process Data Variable; Device Identification
SIO mode		yes
Required master port class		A

Environment

Ambient temperature	[°C]	-20...70
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]	141
Vibration resistance		(10-55) Hz 1 mm amplitude, vibration duration 5 min., 30 min. per axis with resonance or 55 Hz EN 60068-2-6 Fc
Shock resistance		EN 60068-2-27 Ea yes

Mechanical data

Housing materials		316L stainless steel / 1.4404; polyamide; Epoxid-Glaskeramik
Weight	[kg]	0.1



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Ultrasonic sensors

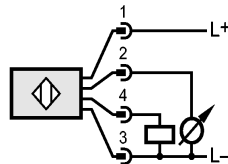
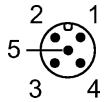
Displays / operating elements

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



Pin 4 = IO-Link

Accessories

Accessories (included)	2 fixing nuts, stainless steel; 2 Flat SS washers
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Remarks

Remarks	cULus - Class 2 source required
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Pack quantity	[piece]	1
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