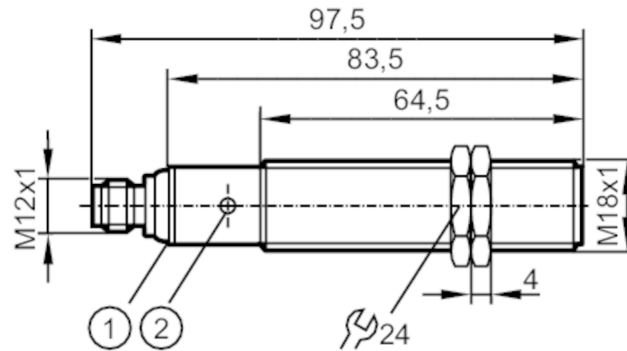


UGT511



Ultrasonic sensor

UGA01600E2KG/IO-LINK/US



- 1 LEDs
- 2 teach button



Product characteristics

Electrical design	PNP
Output function	normally open / normally closed; (parameterisable)
Sensing range [mm]	150...1600
Communication interface	IO-Link
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 97.5

Electrical data

Operating voltage [V]	10...30 DC; ("supply class 2" to cULus)
Current consumption [mA]	55
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	< 0.3
Converter frequency [kHz]	230

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1
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Ultrasonic sensor

UGA01600E2KG/IO-LINK/US


Outputs	
Total number of outputs	2
Electrical design	PNP
Number of digital outputs	1
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]	3
Number of analogue outputs	1
Analogue voltage output [V]	0...10
Min. load resistance [Ω]	3000
Short-circuit protection	yes
Overload protection	yes
Resolution of analogue output	< 3 mm
Detection zone	
Sensing range [mm]	150...1600
Blind zone [mm]	150
Angle of aperture cylindrical [$^{\circ}$]	7; (± 2)
Detection range hysteresis [mm]	< 1
Max. deviation from the 90° angle sensor/object [$^{\circ}$]	± 4
Accuracy / deviations	
Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of min. 20 minutes
Temperature compensation	yes
Hysteresis [%]	1
Switch point drift [%]	-2...2
Linearity error of analogue output [%]	1
Interfaces	
Communication interface	IO-Link
Transmission 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 type	A
Min. process cycle time [ms]	3.2
Operating conditions	
Ambient temperature [$^{\circ}\text{C}$]	-20...70
Protection	IP 67

UGT511

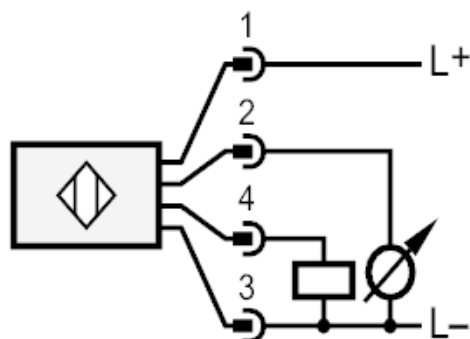


Ultrasonic sensor

UGA01600E2KG/IO-LINK/US

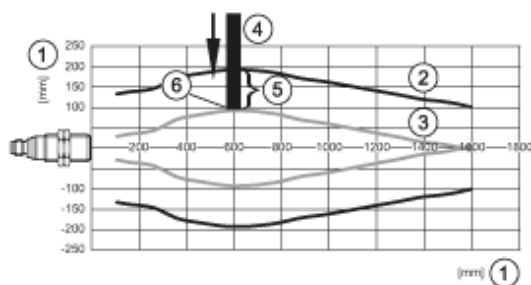
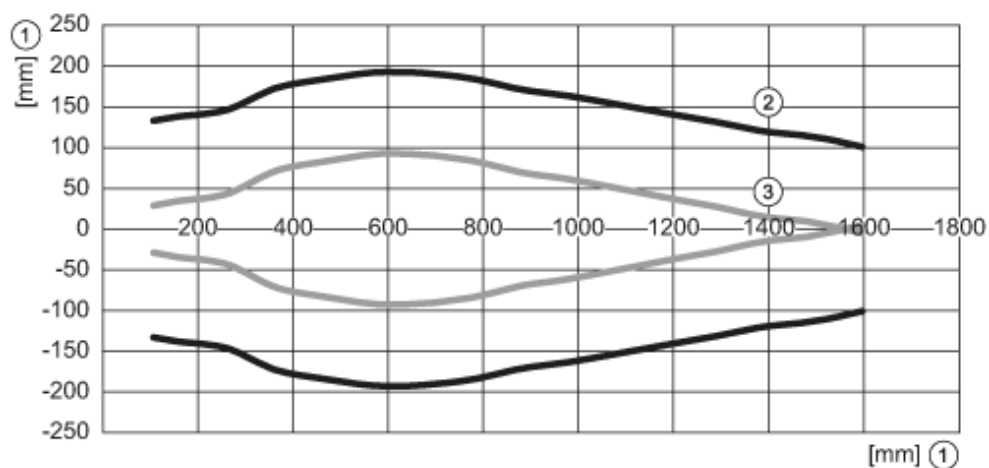
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / plastics 8 kV AD / metal
	EN 61000-4-3 HF radiated	3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V
	EN 55011	Class A
Vibration resistance	EN 60068-2-6 Fc	(10-55) Hz 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz
Shock resistance	EN 60068-2-27 Ea	yes
MTTF [years]		141
Mechanical data		
Weight [g]		103.5
Housing		threaded type
Dimensions [mm]		M18 x 1 / L = 97.5
Thread designation		M18 x 1
Materials		stainless steel (1.4404 / 316L); PA; epoxy glass ceramics
Displays / operating elements		
Display	switching status	2 LED, yellow
	echo	1 LED, green
Accessories		
Accessories (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		
		

Connection



Pin 4 = IO-Link

Diagrams and graphs



- 1: distance
- 2: Detection zone
- 3: switch-on/switch-off graph
- 4: Target 200 x 200 mm
- 5: 50% of the target in the detection zone
- 6: switch point