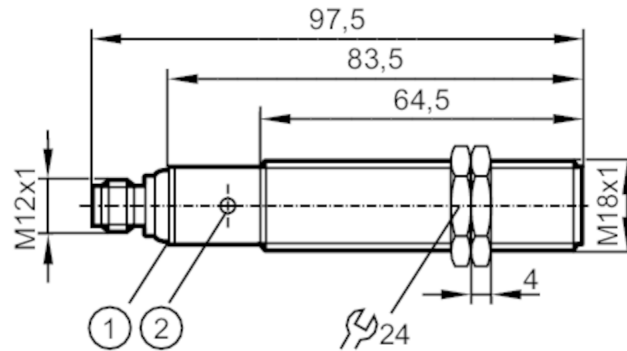


UGT509



Ultrasonic sensor

UGA01600GOKG/IO-LINK/US



- 1 LEDs
- 2 teach button



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

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]	3
Short-circuit protection		yes
Overload protection		yes

Detection zone

Sensing range	[mm]	150...1600
Blind zone	[mm]	150
Angle of aperture cylindrical	[°]	7; (±2)
Detection range hysteresis	[mm]	< 1
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...2

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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 [°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
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]	132	
Mechanical data		
Weight [g]	100	
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		

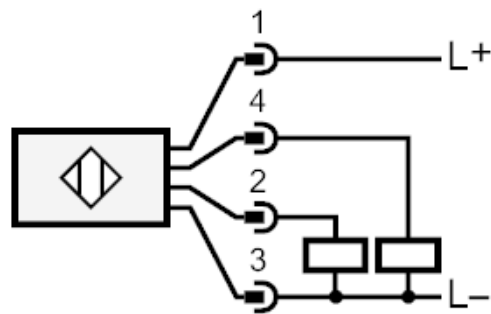
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Ultrasonic sensor

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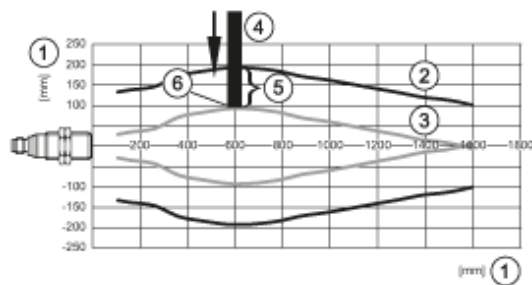
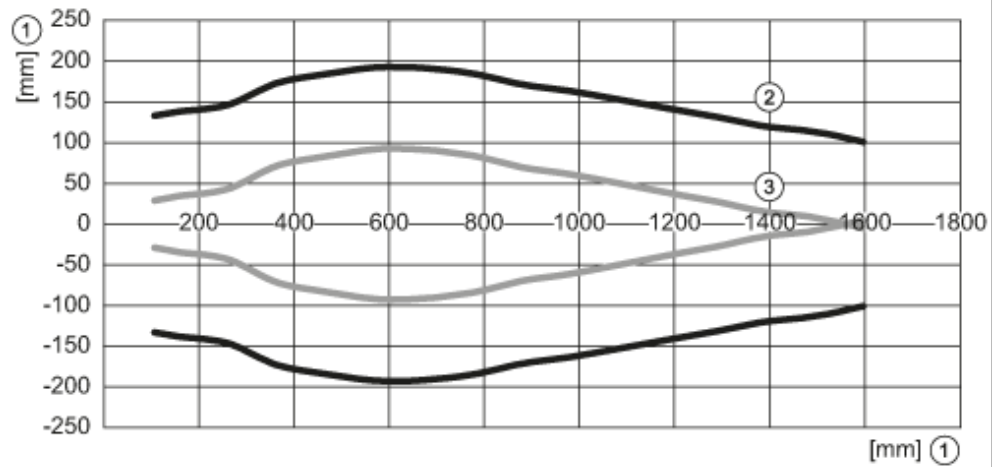


Connection



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