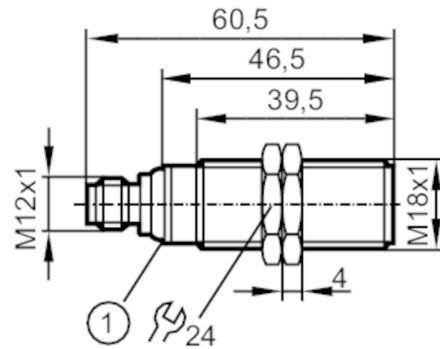


UGT501



Ultrasonic sensor

UGB00300010G/US



1 LEDs



Product characteristics

Sensing range	[mm]	40...300
Housing		threaded type
Dimensions	[mm]	M18 x 1 / L = 60.5

Electrical data

Operating voltage	[V]	10...30 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 35
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	0.1
Converter frequency	[kHz]	300

Inputs / outputs

Number of inputs and outputs		Number of analogue outputs: 1
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Inputs

Synchronisation input		no
Multiplex input		no

Outputs

Total number of outputs		1
Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500
Short-circuit protection		yes
Overload protection		yes

Detection zone

Sensing range	[mm]	40...300
Blind zone	[mm]	40
Angle of aperture cylindrical	[°]	7; (±2)
Detection range hysteresis	[mm]	< 1
Max. deviation from the 90° angle sensor/object	[°]	± 4

UGT501



Ultrasonic sensor

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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 [%]	-2.5...2.5	
Linearity error of analogue output [%]	< 1	
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]	213	
Mechanical data		
Weight [g]	78.5	
Housing	threaded type	
Dimensions [mm]	M18 x 1 / L = 60.5	
Thread designation	M18 x 1	
Materials	stainless steel (1.4404 / 316L); PA; epoxy glass ceramics	
Displays / operating elements		
Display	switching status	1 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		

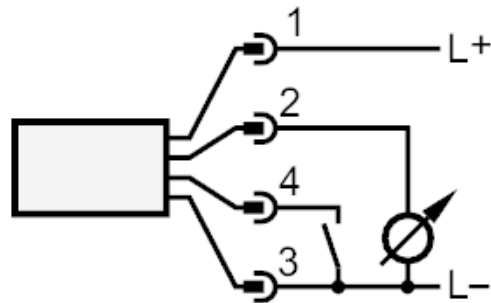
UGT501



Ultrasonic sensor

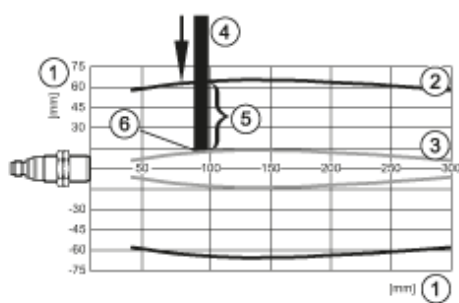
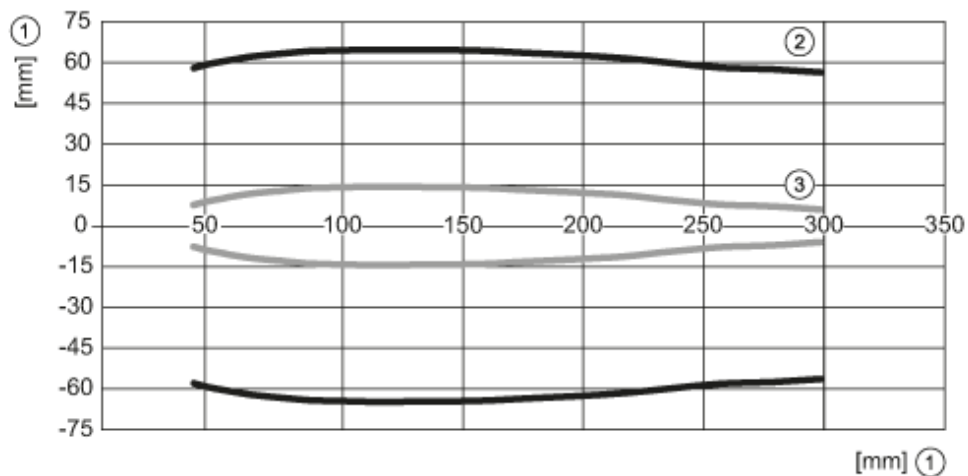
UGB00300010G/US

Connection



4: Teach

Diagrams and graphs



- 1: distance
- 2: Detection zone
- 3: switch-on/switch-off graph
- 4: Target 100 x 100 mm
- 5: 50% of the target in the detection zone
- 6: switch point