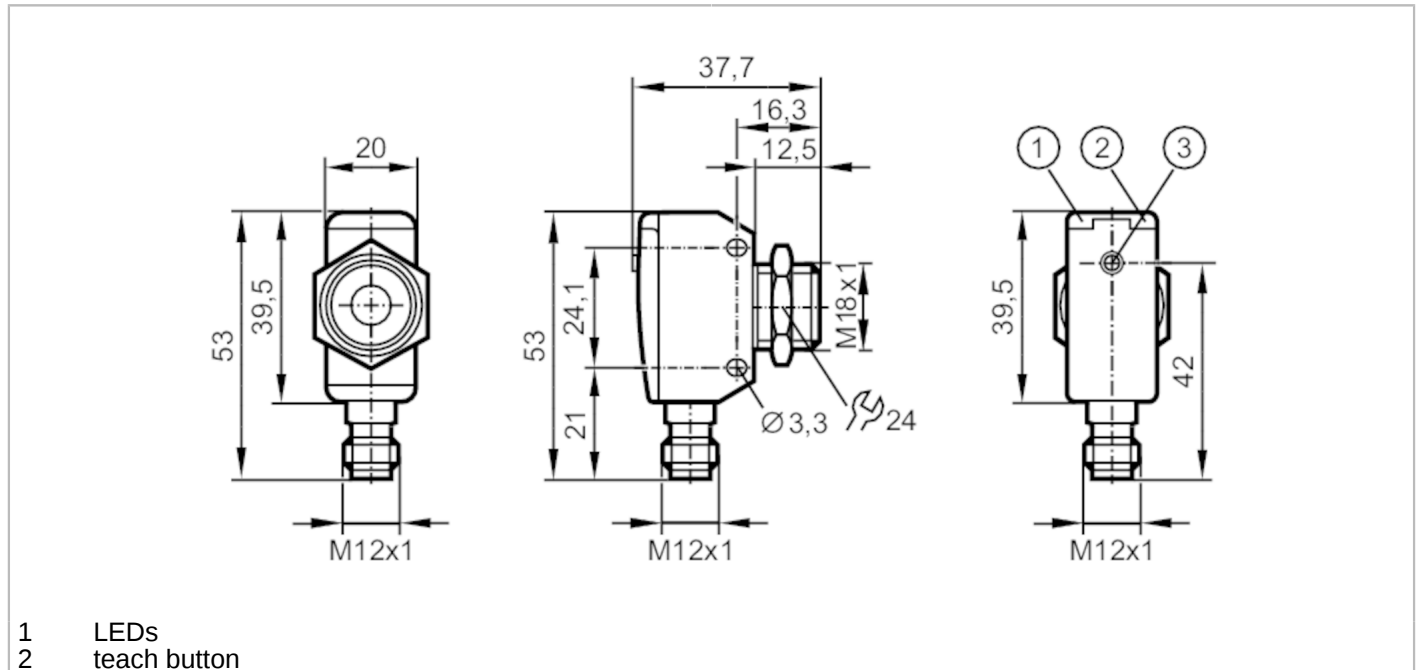


UGT580



Ultrasonic sensor

UGQ00300E1KG/US



Product characteristics	
Electrical design	PNP
Output function	normally open / normally closed; (parameterisable + 1x current output)
Sensing range [mm]	40...300; (Target: 100 x 100 mm)
Housing	rectangular
Dimensions [mm]	M18 x 1
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]	< 0.3
Converter frequency [kHz]	300
Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 1; Number of analogue outputs: 1

UGT580



Ultrasonic sensor

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Outputs	
Total number of outputs	2
Electrical design	PNP
Number of digital outputs	1
Output function	normally open / normally closed; (parameterisable + 1x current output)
Max. voltage drop switching output DC [V]	2.2
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	8
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; (Target: 100 x 100 mm)
Blind zone [mm]	40
Angle of aperture cylindrical [$^{\circ}$]	15; (± 2)
Detection range hysteresis [mm]	< 1
Max. deviation from the 90 $^{\circ}$ angle sensor/object [$^{\circ}$]	± 4
Accuracy / deviations	
Temperature compensation	yes
Hysteresis [%]	< 1
Switch point drift [%]	-5...5
Linearity error of analogue output [%]	≤ 1
Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of min. 20 minutes
Repeatability	1 %
Resolution [mm]	2
Response times	
Response time [ms]	< 450; (analogue output)
Operating conditions	
Ambient temperature [$^{\circ}$ C]	-20...70
Storage temperature [$^{\circ}$ C]	-30...80
Protection	IP 67

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Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	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	30 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
MTTF	[years]	194
UL approval	Ta	-20...70 °C
	voltage supply	Class 2
	File number UL	E174191

Mechanical data		
Weight	[g]	97
Housing		rectangular
Dimensions	[mm]	M18 x 1
Thread designation		M18 x 1
Materials		1.4542 (17-4 PH / 630); PBT; PA; epoxy glass ceramics
Tightening torque	[Nm]	50

Displays / operating elements		
Display	switching status	1 x LED, yellow
	echo	1 x LED, green
Teach function		yes

Accessories		
Items supplied		lock nuts: 1, stainless steel

Remarks		
Remarks		operating voltage "supply class 2" according to cULus
Pack quantity		1 pcs.

Electrical connection

Connector: 1 x M12



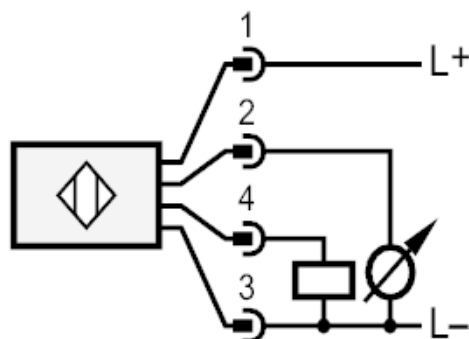
UGT580



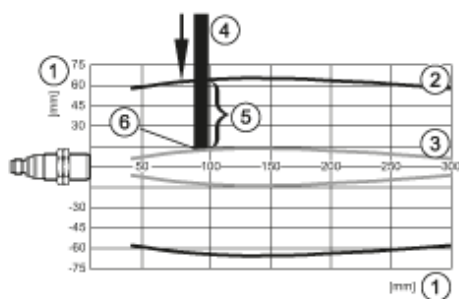
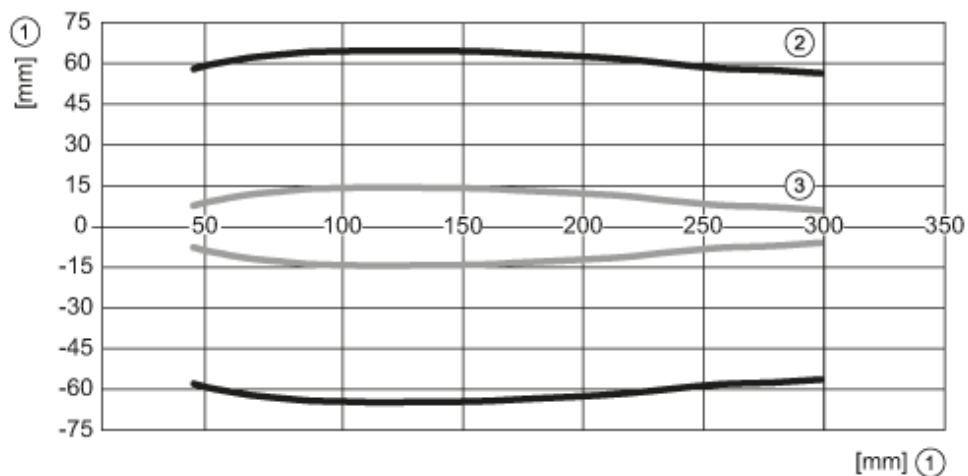
Ultrasonic sensor

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Connection



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