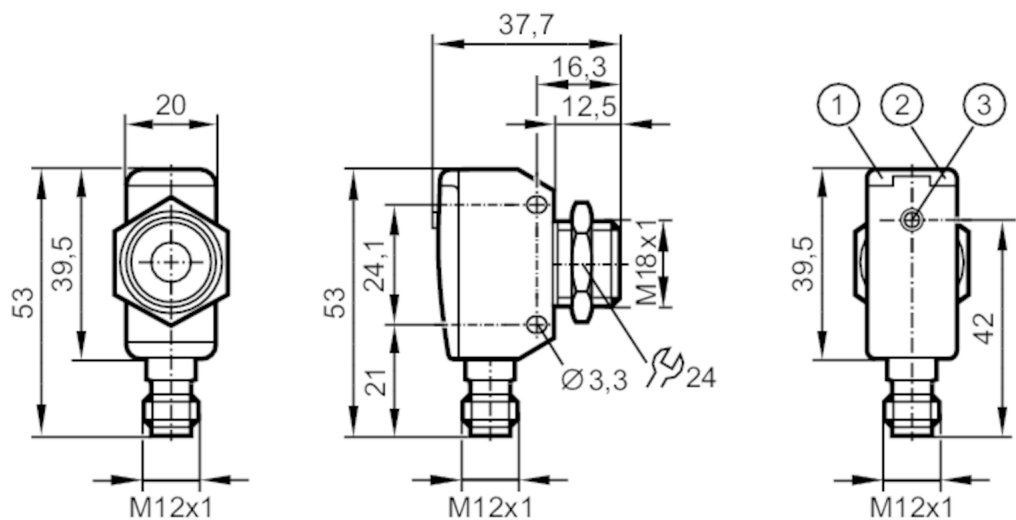


UGT580

Ultrasonic sensor

UGQ00300E1KG/US



- 1 LED echo
- 2 LED Switching status
- 3 teach button



Product characteristics	
Electrical design	PNP
Output function	normally open / closed; (configurable + 1x current output)
Sensing range [mm]	40...300; (Target: 100 x 100 mm)
Housing	rectangular with M18 thread
Dimensions [mm]	53 x 20 x 37.7
Electrical data	
Operating voltage [V]	10...30 DC; (cULus - Class 2 source required)
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 analog outputs: 1
Outputs	
Total number of outputs	2
Electrical design	PNP
Number of digital outputs	1
Output function	normally open / closed; (configurable + 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

UGT580



Ultrasonic sensor

UGQ00300E1KG/US

Number of analog outputs	1
Analog current output [mA]	4...20
Max. load [Ω]	500
Short-circuit protection	yes
Overload protection	yes

Monitoring range	
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° angle sensor/object [$^{\circ}$]	± 4

Accuracy / deviations	
Temperature compensation	yes
Hysteresis [%]	< 1
Switch-point drift [%]	-5...5
Linearity error of analog output [%]	≤ 1
Repeatability	1 %
Resolution [mm]	2
Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of min. 20 minutes

Reaction times	
Response time [ms]	< 450; (analog output)

Operating conditions	
Ambient temperature [$^{\circ}\text{C}$]	-20...70
Storage temperature [$^{\circ}\text{C}$]	-30...80
Protection	IP 67

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, vibration duration 5 min., 30 min. per axis with 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]		191
UL approval	Ta	-20...70 $^{\circ}\text{C}$
	voltage supply	Class 2
	File number UL	E174191

Mechanical data	
Weight [g]	97
Housing	rectangular with M18 thread

UGT580



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Dimensions	[mm]	53 x 20 x 37.7
Thread designation		M18 x 1
Material		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
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Remarks

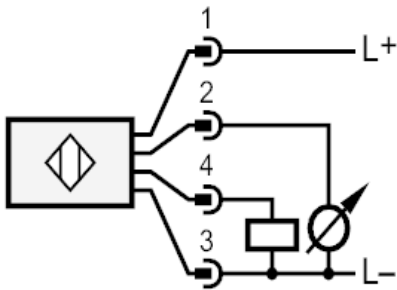
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



Connection





Diagrams and graphs



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