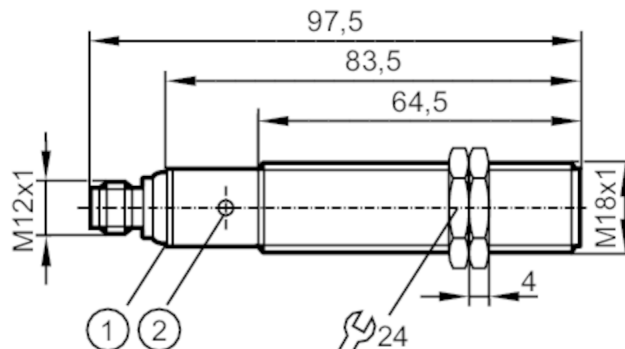


UGT520

Ultrasonic sensor

UGA02200F2KG/US



- 1 LEDs
- 2 teach button



Product characteristics

Electrical design	NPN
Output function	normally open / closed; (configurable)
Sensing range [mm]	200...2200; (Target: 200 x 200 mm)
Housing	Threaded type
Dimensions [mm]	M18 x 1 / L = 97.5

Electrical data

Operating voltage [V]	10...30 DC; (cULus - Class 2 source required)
Current consumption [mA]	55
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	< 0.3
Converter frequency [kHz]	200

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1
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Outputs

Total number of outputs	2
Output signal	switching signal; analog signal
Electrical design	NPN
Number of digital outputs	1
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2.2
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	2
Number of analog outputs	1
Analog voltage output [V]	0...10
Min. load resistance [Ω]	3000
Short-circuit protection	yes
Overload protection	yes

UGT520



Ultrasonic sensor

UGA02200F2KG/US

Resolution of analog output		< 3 mm	
Monitoring range			
Sensing range	[mm]	200...2200; (Target: 200 x 200 mm)	
Blind zone	[mm]	200	
Angle of aperture cylindrical	[°]	14; (±2)	
Max. deviation from the 90° angle sensor/object	[°]	± 4	
Accuracy / deviations			
Temperature compensation		yes	
Hysteresis	[%]	< 2	
Switch-point drift	[%]	-2...2	
Linearity error of analog output	[%]	<3	
Repeatability		1 %	
Notes on the accuracy / deviation		The indicated values are reached after a warm-up time of min. 20 minutes	
Reaction times			
Response time	[ms]	< 300; (analog output)	
Operating conditions			
Ambient temperature	[°C]	-20...70	
Storage temperature	[°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]	142	
UL approval	Ta		-20...70 °C
	voltage supply		Class 2
	File number UL		E174191
Mechanical data			
Weight	[g]	101	
Housing		Threaded type	
Dimensions	[mm]	M18 x 1 / L = 97.5	
Thread designation		M18 x 1	
Material		stainless steel (1.4404 / 316L); PA; epoxy glass ceramics	
Tightening torque	[Nm]	50	

UGT520



Ultrasonic sensor

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Displays / operating elements

Display	Switching status	2 x LED, yellow
	echo	1 x LED, green
Teach function		yes

Accessories

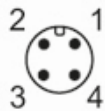
Items supplied	lock nuts: 2 x M18, stainless steel
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Remarks

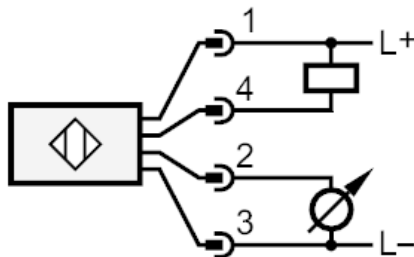
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

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 200 x 200 mm
- 5: 50 % of the target in the detection zone
- 6: Set point