

# UGT503



## Ultrasonic sensor

UGB00800EOKG/US



1 LEDs



### Product characteristics

Electrical design	PNP
Output function	normally open / closed; (configurable)
Sensing range [mm]	60...800; (Target: 200 x 200 mm)
Housing	Threaded type
Dimensions [mm]	M18 x 1 / L = 60.5

### 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]	230

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1
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### Inputs

Synchronization input	no
Multiplex input	no

### Outputs

Total number of outputs	1
Electrical design	PNP
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]	5
Short-circuit protection	yes
Overload protection	yes

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Monitoring range		
Sensing range	[mm]	60...800; (Target: 200 x 200 mm)
Blind zone	[mm]	60
Angle of aperture cylindrical	[°]	15; (±2)
Max. deviation from the 90° angle sensor/object	[°]	± 4
Accuracy / deviations		
Temperature compensation		yes
Hysteresis	[%]	< 1
Switch-point drift	[%]	-5...5
Notes on the accuracy / deviation		The indicated values are reached after a warm-up time of min. 20 minutes
Repeatability		1 %
Resolution	[mm]	2
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]	235
UL approval	Ta	-20...70 °C
	voltage supply	Class 2
	File number UL	E174191
Mechanical data		
Weight	[g]	79
Housing		Threaded type
Dimensions	[mm]	M18 x 1 / L = 60.5
Thread designation		M18 x 1
Material		stainless steel (1.4404 / 316L); PA; epoxy glass ceramics
Tightening torque	[Nm]	50
Displays / operating elements		
Display	Switching status	1 x LED, yellow
	echo	1 x LED, green
Accessories		
Items supplied		lock nuts: 2, stainless steel

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### Remarks

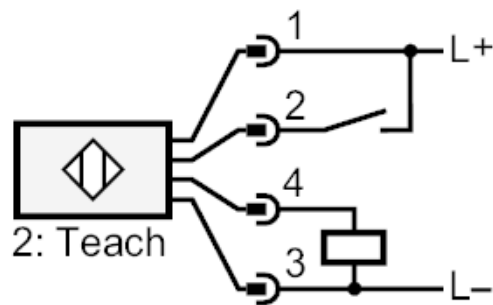
Remarks	cULus - Class 2 source required
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12



### Connection



2: Teach

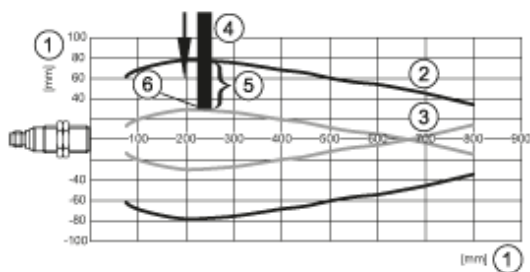
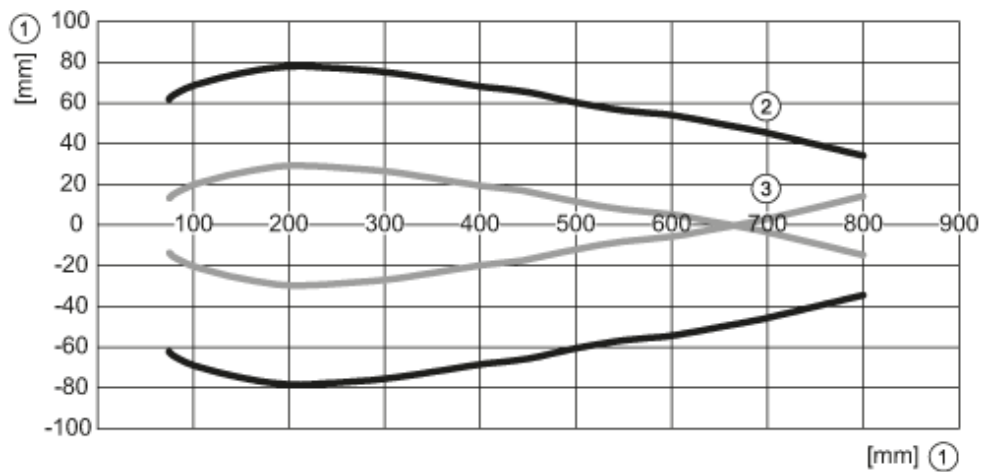
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### Diagrams and graphs



- 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