

UGT504



Ultrasonic sensor

UGB00800010G/US



1 LEDs



Product characteristics

| | | |
|---------------|------|----------------------------------|
| 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; ("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] | 230 |

Inputs / outputs

| | |
|------------------------------|-------------------------------|
| Number of inputs and outputs | Number of analogue outputs: 1 |
|------------------------------|-------------------------------|

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] | 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 |

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| Accuracy / deviations | | |
|------------------------------------|--|--|
| Temperature compensation | | yes |
| 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] | < 500; (analogue 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, 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] | 240 |
| UL approval | Ta | -20...70 °C |
| | voltage supply | Class 2 |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight | [g] | 80.5 |
| 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 |
| 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 |
| Remarks | | |
| Remarks | | operating voltage "supply class 2" according to cULus |
| Pack quantity | | 1 pcs. |

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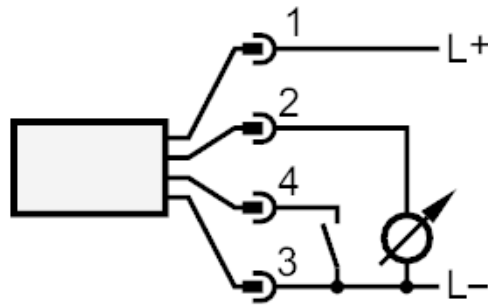
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Electrical connection

Connector: 1 x M12



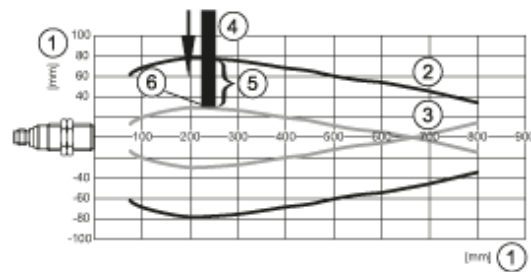
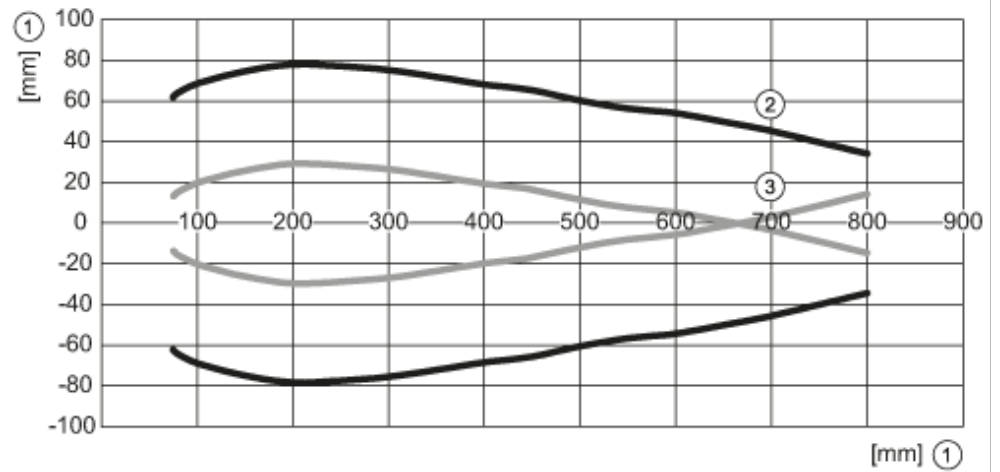
Connection



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