

# UGT507

## Ultrasonic sensor

UGB01200O10G/US



1 LEDs



### Product characteristics

|               |      |                                   |
|---------------|------|-----------------------------------|
| Sensing range | [mm] | 80...1200; (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] | 200                                     |

### 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] | 80...1200; (Target: 200 x 200 mm) |
| Blind zone                                      | [mm] | 80                                |
| Angle of aperture cylindrical                   | [°]  | 14; (±2)                          |
| Max. deviation from the 90° angle sensor/object | [°]  | ± 4                               |

### Accuracy / deviations

|                          |     |
|--------------------------|-----|
| Temperature compensation | yes |
|--------------------------|-----|

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|                                    |                                                                          |            |
|------------------------------------|--------------------------------------------------------------------------|------------|
| Hysteresis                         | [%]                                                                      | < 1        |
| Switch point drift                 | [%]                                                                      | -2.5...2.5 |
| Linearity error of analogue output | [%]                                                                      | < 1        |
| Resolution                         | [mm]                                                                     | 2          |
| Notes on the accuracy / deviation  | The indicated values are reached after a warm-up time of min. 20 minutes |            |

### 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                 | [ANN]                     | 211                                                                                          |
| UL approval          | Ta                        | -20...70 °C                                                                                  |
|                      | подача напруги            | Class 2                                                                                      |
|                      | File number UL            | E174191                                                                                      |

### Mechanical data

|                    |      |                                                           |
|--------------------|------|-----------------------------------------------------------|
| Weight             | [g]  | 79.5                                                      |
| 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  |

### Аксессуары

|                |                               |
|----------------|-------------------------------|
| 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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## Ultrasonic sensor

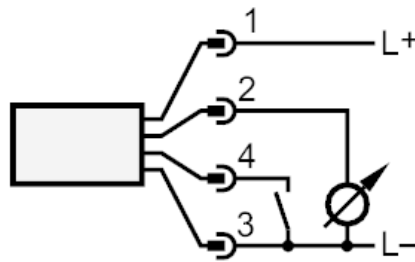
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### Electrical connection

Connector: 1 x M12; coding: A



### Connection



4: Teach



### Diagrams and graphs



- 1: distance
- 2: Detection zone
- 3: switch-on/switch-off graph
- 4: Target 200 x 200 mm
- 5: 50% of the target in the detection zone
- 6: switch point