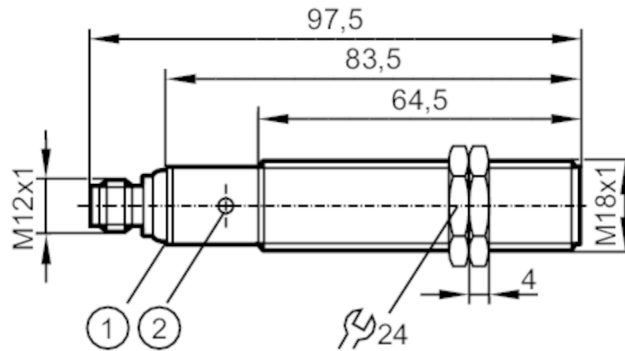


# UGT518



## Ultrasonic sensor

UGA02200HOKG/US



- 1 LEDs
- 2 teach button



### Product characteristics

|                    |  |
|--------------------|--|
| Electrical design  | NPN  |
| Output function    | normally open / normally closed; (parameterisable) |
| 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; ("supply class 2" to cULus) |
| 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: 2 |
|------------------------------|------------------------------|

### Outputs

|  |  |
|--|--|
| Total number of outputs                              | 2  |
| Electrical design                                    | NPN  |
| Number of digital outputs                            | 2  |
| Output function                                      | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC [V]            | 2.2  |
| Permanent current rating of switching output DC [mA] | 100  |
| Switching frequency DC [Hz]                          | 2  |
| Short-circuit protection                             | yes  |
| Overload protection                                  | yes  |

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## Ultrasonic sensor

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| Detection zone                                  |                           |  |
|---|---------------------------|--|
| 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   |
| Notes on the accuracy / deviation               |                           | The indicated values are reached after a warm-up time of min. 20 minutes                     |
| Repeatability                                   |                           | 1 %  |
| Resolution                                      | [mm]                      | 1  |
| 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]                   | 154  |
| 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  |
| Materials                                       |                           | stainless steel (1.4404 / 316L); PA; epoxy glass ceramics                                    |
| Tightening torque                               | [Nm]                      | 50   |
| Displays / operating elements                   |                           |  |
| Display   | switching status          | 2 x LED, yellow  |
|   | echo                      | 1 x LED, green   |
| Teach function                                  |                           | yes  |
| Accessories                                     |                           |  |
| Accessories (supplied)                          |                           | lock nuts: 2, stainless steel  |

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## Ultrasonic sensor

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### Remarks

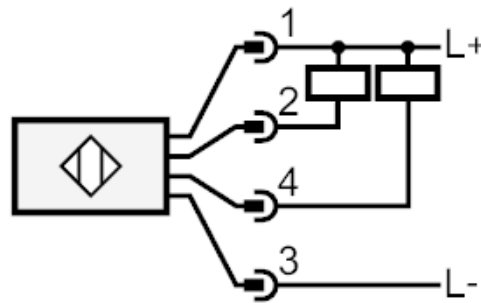
|               |   |
|---------------|---|
| Remarks       | operating voltage "supply class 2" according to cULus |
| Pack quantity | 1 pcs.  |

### Electrical connection

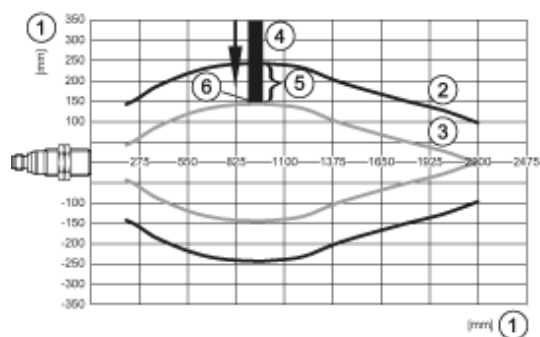
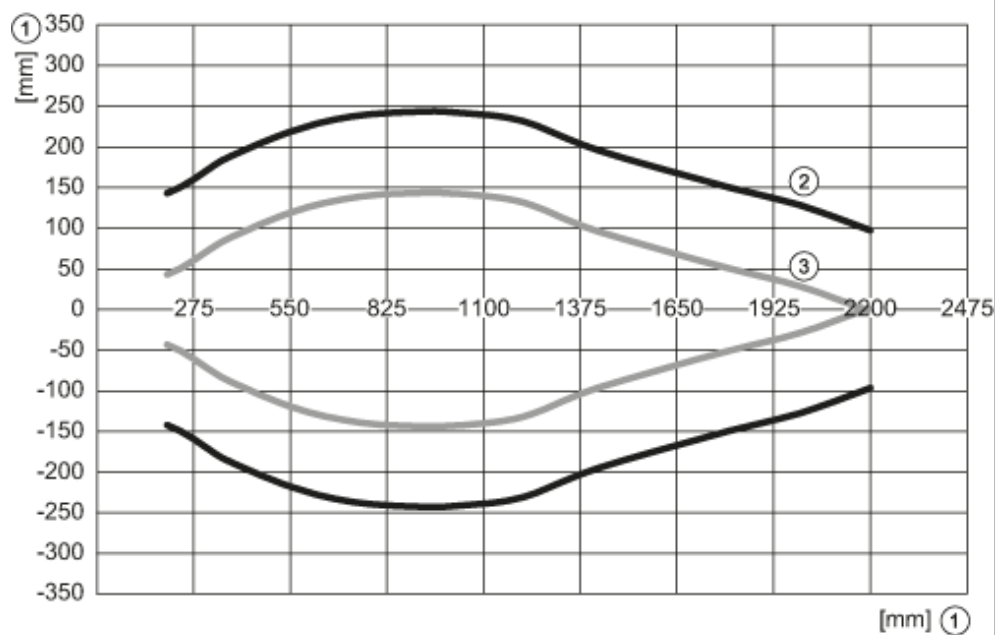
Connector: 1 x M12



### Connection



### 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