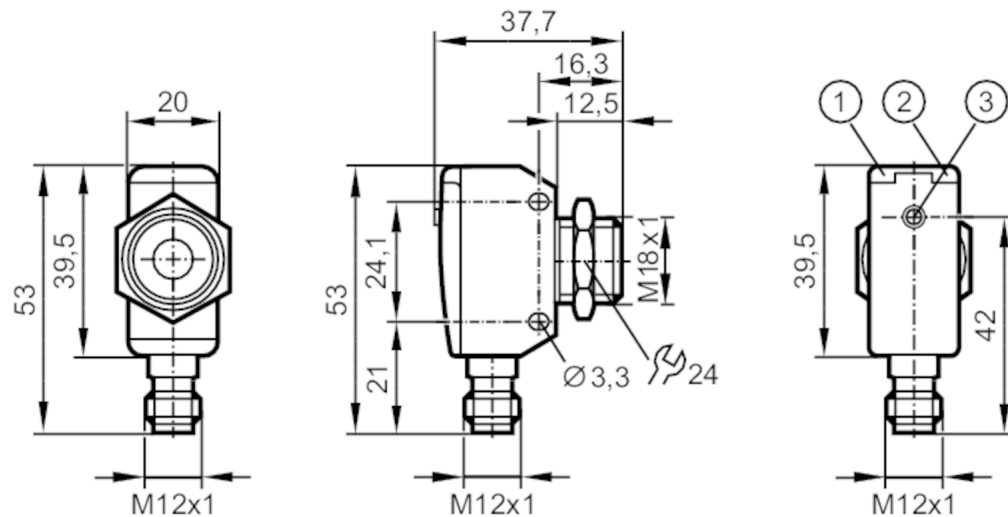


# UGT587

## Ultrasonic sensor

UGQ00300F2KG/US



- 1 LED echo
- 2 LED switching status
- 3 teach button



| Product characteristics                              |                                                             |
|------------------------------------------------------|-------------------------------------------------------------|
| Electrical design                                    | NPN                                                         |
| Output function                                      | normally open / normally closed; (parameterisable)          |
| Sensing range [mm]                                   | 40...300; (Target: 100 x 100 mm)                            |
| Housing                                              | rectangular with M18 thread                                 |
| Dimensions [mm]                                      | 53 x 20 x 37.7                                              |
| 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]                            | 300                                                         |
| Inputs / outputs                                     |                                                             |
| Number of inputs and outputs                         | Number of digital outputs: 1; Number of analogue outputs: 1 |
| Outputs                                              |                                                             |
| Total number of outputs                              | 2                                                           |
| Output signal                                        | switching signal; analogue signal                           |
| Electrical design                                    | NPN                                                         |
| Number of digital outputs                            | 1                                                           |
| 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                                                         |

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|                            |      |        |
|----------------------------|------|--------|
| Switching frequency DC     | [Hz] | 8      |
| Number of analogue outputs |      | 1      |
| Analogue voltage output    | [V]  | 0...10 |
| Min. load resistance       | [Ω]  | 3000   |
| Short-circuit protection   |      | yes    |
| Overload protection        |      | yes    |

### Detection zone

|                                                 |      |                                  |
|-------------------------------------------------|------|----------------------------------|
| Sensing range                                   | [mm] | 40...300; (Target: 100 x 100 mm) |
| Blind zone                                      | [mm] | 40                               |
| Angle of aperture cylindrical                   | [°]  | 15; (±2)                         |
| Detection range hysteresis                      | [mm] | < 1                              |
| Max. deviation from the 90° angle sensor/object | [°]  | ± 4                              |

### Accuracy / deviations

|                                    |      |                                                                          |
|------------------------------------|------|--------------------------------------------------------------------------|
| Temperature compensation           |      | yes                                                                      |
| Hysteresis                         | [%]  | < 1                                                                      |
| Switch point drift                 | [%]  | -5...5                                                                   |
| Linearity error of analogue output | [%]  | ≤ 1                                                                      |
| Repeatability                      |      | 1 %                                                                      |
| Resolution                         | [mm] | 2                                                                        |
| Notes on the accuracy / deviation  |      | The indicated values are reached after a warm-up time of min. 20 minutes |

### Response times

|               |      |                          |
|---------------|------|--------------------------|
| Response time | [ms] | < 450; (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]                   | 191                                                                                          |
| UL approval          | Ta                        | -20...70 °C                                                                                  |
|                      | power supply              | Class 2                                                                                      |
|                      | File number UL            | E174191                                                                                      |

### Mechanical data

|        |     |    |
|--------|-----|----|
| Weight | [g] | 98 |
|--------|-----|----|

# UGT587



## Ultrasonic sensor

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|                        |                                                                     |  |
|------------------------|---------------------------------------------------------------------|--|
| Housing                | rectangular with M18 thread                                         |  |
| Dimensions [mm]        | 53 x 20 x 37.7                                                      |  |
| Thread designation     | M18 x 1                                                             |  |
| Materials              | stainless steel (630/1.4542/17-4 PH); PBT; PA; epoxy glass ceramics |  |
| Tightening torque [Nm] | 50                                                                  |  |

### Displays / operating elements

|                |                  |                 |
|----------------|------------------|-----------------|
| Display        | switching status | 1 x LED, yellow |
|                | echo             | 1 x LED, green  |
| Teach function | yes              |                 |

### Accessories

|                |                               |
|----------------|-------------------------------|
| Items supplied | lock nuts: 1, stainless steel |
|----------------|-------------------------------|

### Remarks

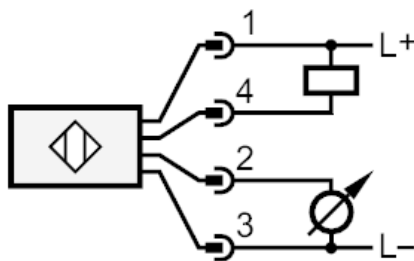
|               |                                                       |
|---------------|-------------------------------------------------------|
| Remarks       | operating voltage "supply class 2" according to cULus |
| Pack quantity | 1 pcs.                                                |

### Electrical connection

Connector: 1 x M12; coding: A



### Connection





### 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