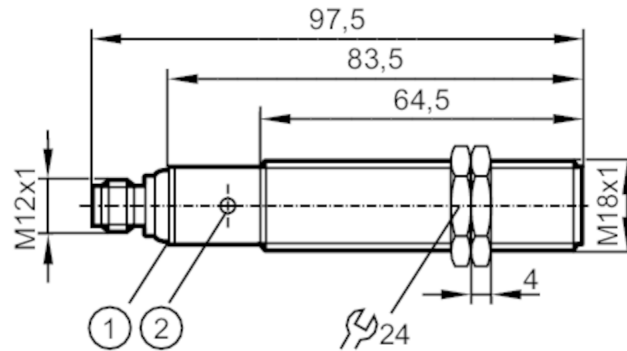


UGT516



Ultrasonic sensor

UGA01600F1KG/US



- 1 LEDs
- 2 teach button



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] | 230 |

Inputs / outputs

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

Outputs

| | |
|--|--|
| Total number of outputs | 2 |
| 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 |
| Switching frequency DC [Hz] | 3 |
| Number of analogue outputs | 1 |
| Analogue current output [mA] | 4...20 |
| Max. load [Ω] | 500 |
| Short-circuit protection | yes |
| Overload protection | yes |

Detection zone

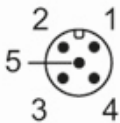
| | |
|---|------------|
| Sensing range [mm] | 150...1600 |
| Blind zone [mm] | 150 |
| Angle of aperture cylindrical [°] | 7; (±2) |
| Detection range hysteresis [mm] | < 1 |
| Max. deviation from the 90° angle sensor/object [°] | ± 4 |

UGT516

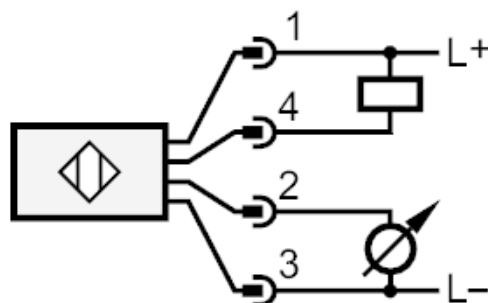


Ultrasonic sensor

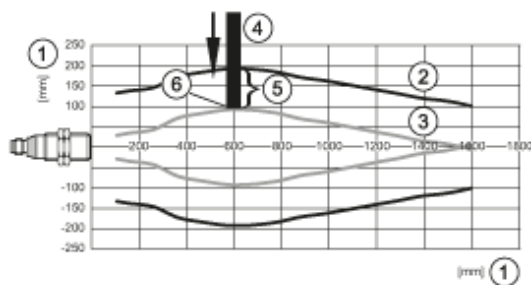
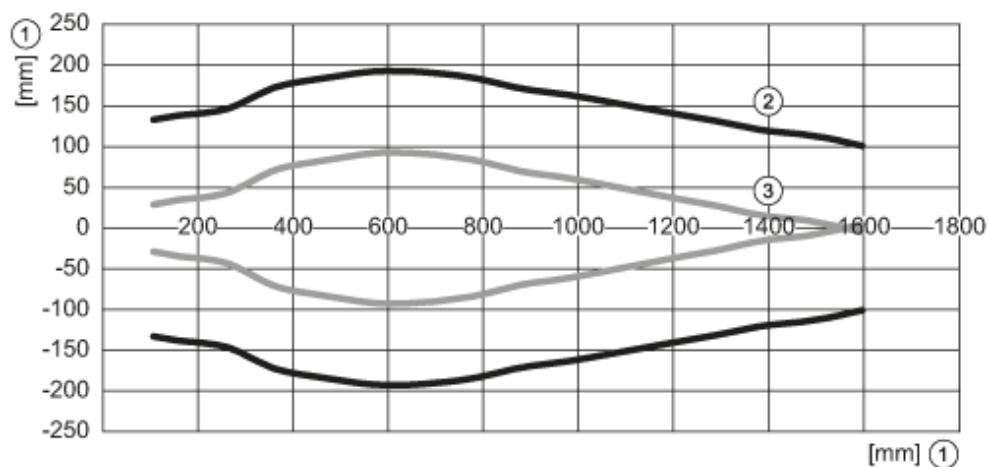
UGA01600F1KG/US

| Accuracy / deviations | | |
|---|--|--|
| Notes on the accuracy / deviation | The indicated values are reached after a warm-up time of 20 minutes. | |
| Temperature compensation | yes | |
| Hysteresis [%] | 1 | |
| Switch point drift [%] | -2...2 | |
| Linearity error of analogue output [%] | 1 | |
| Operating conditions | | |
| Ambient temperature [°C] | -20...70 | |
| Protection | IP 67 | |
| Tests / approvals | | |
| EMC | EN 61000-4-2 ESD | 4 kV CD / plastics 8 kV AD / metal |
| | 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 | yes |
| MTTF [years] | 146 | |
| Mechanical data | | |
| Weight [g] | 100 | |
| 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 | |
| Displays / operating elements | | |
| Display | switching status | 2 LED, yellow |
| | echo | 1 LED, green |
| Accessories | | |
| Accessories (supplied) | lock nuts: 2, stainless steel | |
| 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