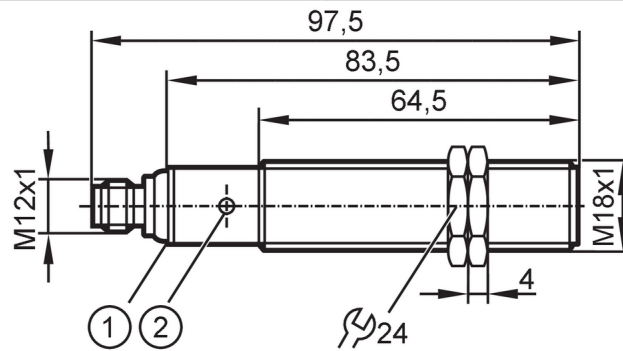


UGT515



Ultrasonic sensor

UGA01600HOKG/US



- 1 LEDs
- 2 teach button



Product characteristics

| | |
|--------------------|----------------------------------------|
| Electrical design | NPN |
| Output function | normally open / closed; (configurable) |
| Sensing range [mm] | 150...1600; (Target: 200 x 200 mm) |
| Housing | Threaded type |
| Dimensions [mm] | M18 x 1 / L = 97.5 |

Electrical data

| | |
|-----------------------------|-----------------------------------------------|
| Operating voltage [V] | 10...30 DC; (cULus - Class 2 source required) |
| 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: 2 |
|------------------------------|------------------------------|

Outputs

| | |
|------------------------------------------------------|----------------------------------------|
| Total number of outputs | 2 |
| Electrical design | NPN |
| Number of digital outputs | 2 |
| Output function | normally open / closed; (configurable) |
| Max. voltage drop switching output DC [V] | 2.2 |
| Permanent current rating of switching output DC [mA] | 100 |
| Switching frequency DC [Hz] | 3 |
| Short-circuit protection | yes |
| Overload protection | yes |

Monitoring range

| | |
|-----------------------------------|------------------------------------|
| Sensing range [mm] | 150...1600; (Target: 200 x 200 mm) |
| Blind zone [mm] | 150 |
| Angle of aperture cylindrical [°] | 15; (±2) |

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| | | |
|-------------------------------------------------|-----|-----|
| Max. deviation from the 90° angle sensor/object | [°] | ± 4 |
|-------------------------------------------------|-----|-----|

Accuracy / deviations

| | | |
|-----------------------------------|--------------------------------------------------------------------------|--------|
| Temperature compensation | | yes |
| Hysteresis | [%] | < 2 |
| Switch-point drift | [%] | -2...2 |
| Repeatability | | 1 % |
| Resolution | [mm] | 1 |
| 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, vibration duration 5 min., 30 min. per axis with 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] | 132 |
| UL approval | Ta | -20...70 °C |
| | voltage supply | Class 2 |
| | File number UL | E174191 |

Mechanical data

| | | |
|--------------------|------|-----------------------------------------------------------|
| Weight | [g] | 101.5 |
| Housing | | Threaded type |
| Dimensions | [mm] | M18 x 1 / L = 97.5 |
| Thread designation | | M18 x 1 |
| Material | | 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

| | |
|----------------|-------------------------------------|
| Items supplied | lock nuts: 2 x M18, stainless steel |
|----------------|-------------------------------------|

Remarks

| | |
|---------------|---------------------------------|
| Remarks | cULus - Class 2 source required |
| Pack quantity | 1 pcs. |

UGT515



Ultrasonic sensor

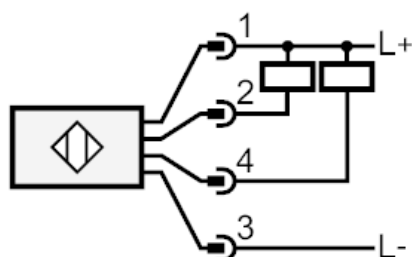
UGA01600HOKG/US

Electrical connection

Connector: 1 x M12; coding: A

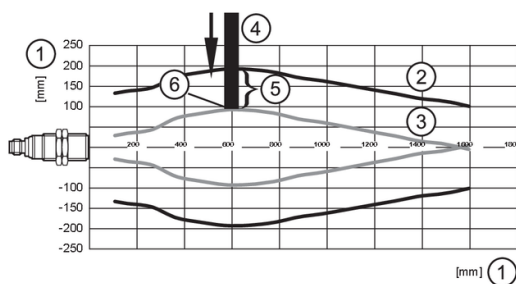
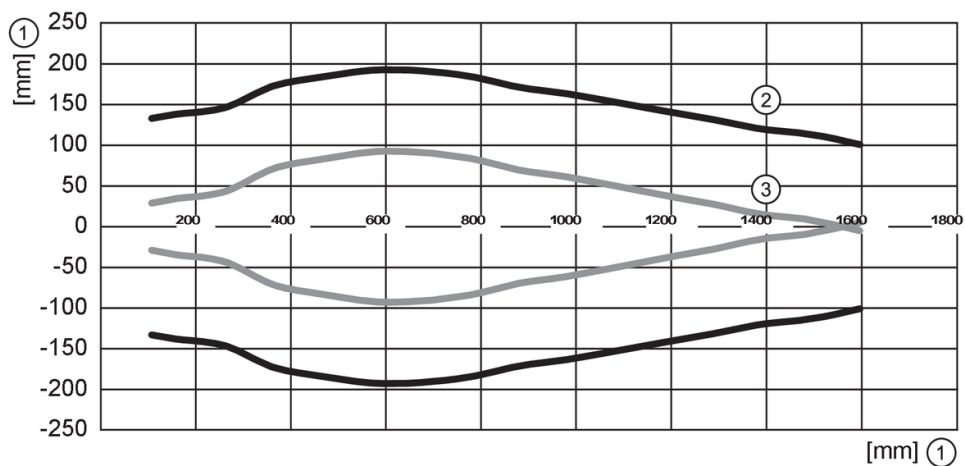


Connection





Diagrams and graphs



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