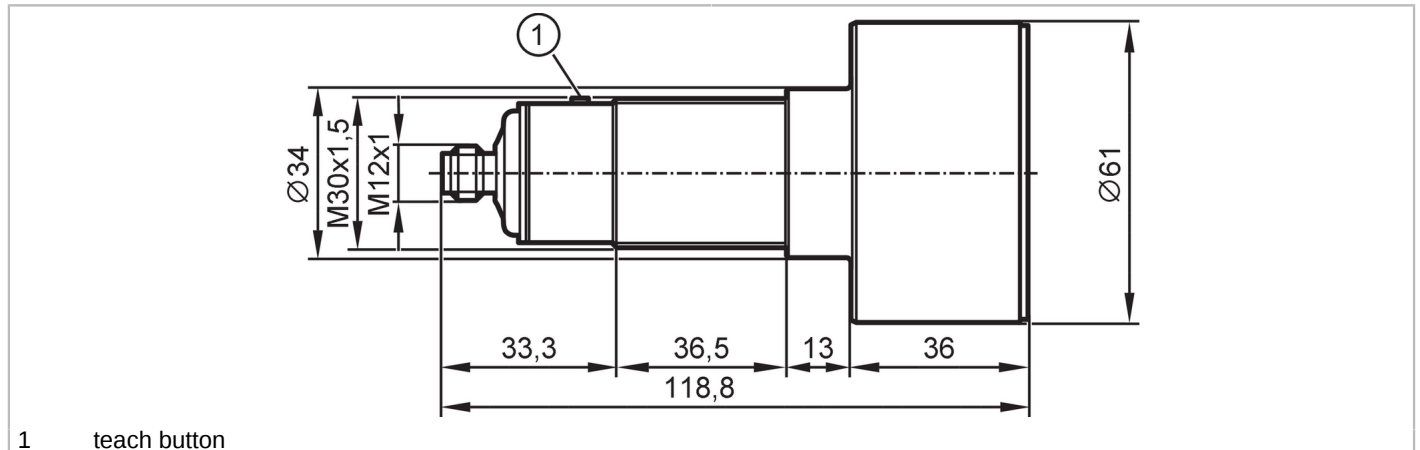


UIT507



Ultrasonic sensor

UIA08000E1KG/IO-Link/US



1 teach button



Product characteristics

| | |
|-------------------------|--|
| Electrical design | PNP |
| Output function | normally open / closed; (configurable) |
| Sensing range [mm] | 600...8000; (Target: 1000 x 1000 mm) |
| Communication interface | IO-Link |
| Housing | Threaded type |
| Dimensions [mm] | M30 x 1.5 / L = 118.8 |

Electrical data

| | |
|-----------------------------|------------|
| Operating voltage [V] | 10...30 DC |
| Current consumption [mA] | < 30 |
| Protection class | III |
| Reverse polarity protection | yes |
| Power-on delay time [s] | < 0.3 |
| Converter frequency [kHz] | 40 |

Inputs / outputs

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

Outputs

| | |
|--|--|
| Total number of outputs | 2 |
| Output signal | switching signal; analog signal; IO-Link |
| Electrical design | PNP |
| Number of digital outputs | 1 |
| 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] | 1 |
| Number of analog outputs | 1 |
| Analog current output [mA] | 4...20 |
| Max. load [Ω] | 500 |
| Short-circuit protection | yes |

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| | | |
|---|------------------------------|---|
| Overload protection | | yes |
| Monitoring range | | |
| Sensing range | [mm] | 600...8000; (Target: 1000 x 1000 mm) |
| Blind zone | [mm] | 600 |
| Angle of aperture cylindrical | [°] | 10; (±2) |
| Max. deviation from the 90° angle sensor/object | [°] | ± 4 |
| Accuracy / deviations | | |
| Temperature compensation | | yes |
| Hysteresis | [%] | < 3 |
| Switch-point drift | [%] | -5...5 |
| Linearity error of analog output | [%] | <3 |
| Repeatability | | 1 % |
| Resolution | [mm] | 3 |
| Notes on the accuracy / deviation | | The indicated values are reached after a warm-up time of min. 20 minutes |
| Reaction times | | |
| Response time | [ms] | < 700; (analog output) |
| Software / programming | | |
| Parameter setting options | | hysteresis / window; second switch point; Switch-on and switch-off delay; switch-on operations; Teach function; light-on/dark-on mode |
| Interfaces | | |
| Communication interface | | IO-Link |
| Transmission type | | COM2 (38,4 kBaud) |
| IO-Link revision | | 1.1 |
| SDCI standard | | IEC 61131-9 |
| Profiles | Smart Sensor - SSP 0 | Generic Profiled Sensor |
| | Function | Device identification |
| | Function | Multiple switching signal |
| | Function | Process data variable |
| | Function | Device diagnosis |
| | Function | Teach channel |
| SIO mode | | yes |
| Required master port class | | A |
| Min. process cycle time | [ms] | 3.2 |
| IO-Link process data (cyclical) | Function | bit length |
| | process value | 16 |
| | device status | 4 |
| | binary switching information | 2 |
| IO-Link functions (acyclical) | | application specific tag; operating hours counter |
| Supported DeviceIDs | Type of operation | DeviceID |
| | default | 1100 |
| Note | | For further information please see the IODD PDF file at "Downloads" |
| Operating conditions | | |
| Ambient temperature | [°C] | -20...70 |

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| | | |
|---------------------|------|----------|
| 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] | 107 |
| UL approval | Ta | -20...70 °C |
| | voltage supply | Class 2 |
| | File number UL | E174191 |

Mechanical data

| | | |
|--------------------|------|---|
| Weight | [g] | 571.3 |
| Housing | | Threaded type |
| Dimensions | [mm] | M30 x 1.5 / L = 118.8 |
| Thread designation | | M30 x 1.5 |
| Material | | stainless steel (1.4404 / 316L); PA; epoxy glass ceramics |
| Tightening torque | [Nm] | 100 |

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 M30, stainless steel |
|----------------|-------------------------------------|

Remarks

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

Electrical connection

Connector: 1 x M12; coding: A

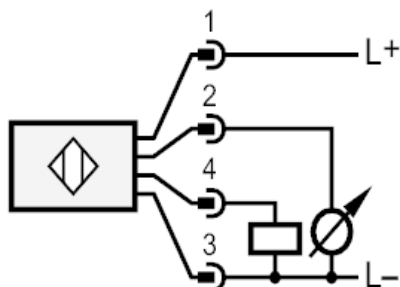




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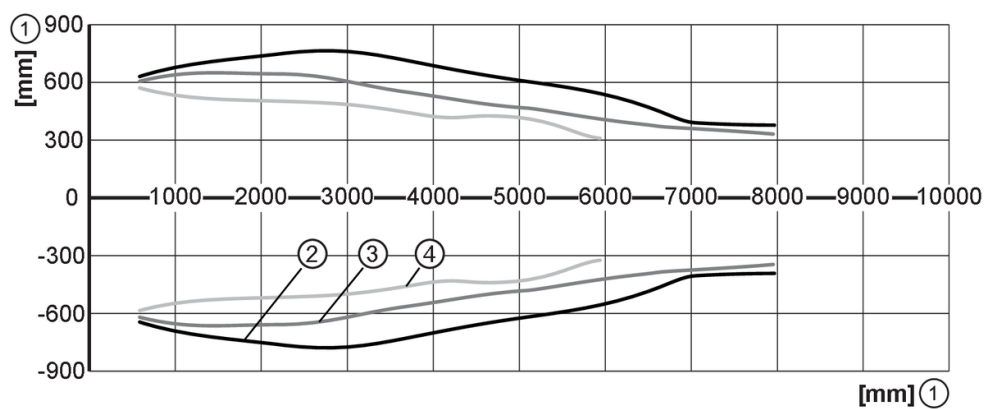
Connection



4

IO-Link

Diagrams and graphs



- 1 Distance
- 2 Standard sound cone
- 3 Medium sound cone
- 4 Narrow sound cone