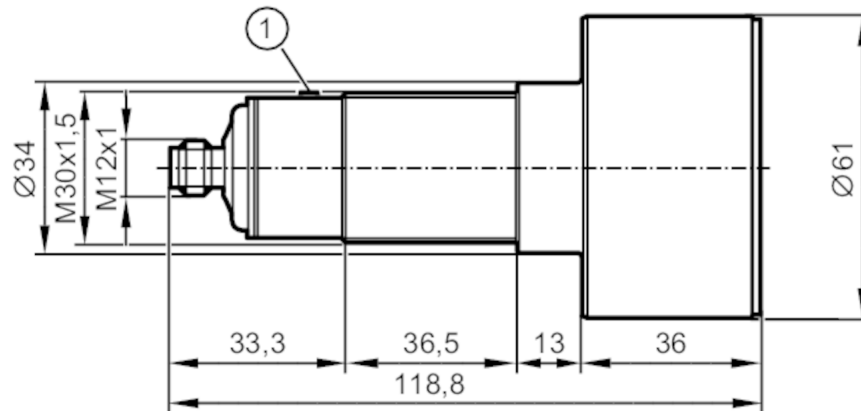


UIT508



Ultrasonic diffuse reflection sensor

UIA08000E2KG/IO-Link/US



1 teach button



Product characteristics

| | |
|-------------------------|--|
| Electrical design | PNP |
| Output function | normally open / normally closed; (parameterisable + 1x voltage output) |
| 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 analogue outputs: 1 |
|------------------------------|---|



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| Outputs | |
|--|---|
| Total number of outputs | 2 |
| Electrical design | PNP |
| Number of digital outputs | 1 |
| Output function | normally open / normally closed; (parameterisable + 1x voltage output) |
| 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 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] | 600...8000; (Target: 1000 x 1000 mm) |
| Blind zone [mm] | 600 |
| Angle of aperture cylindrical [$^{\circ}$] | 10; (± 2) |
| Max. deviation from the 90 $^{\circ}$ angle sensor/object [$^{\circ}$] | ± 4 |
| Accuracy / deviations | |
| Temperature compensation | yes |
| Hysteresis [%] | < 3 |
| Switch point drift [%] | -5...5 |
| Linearity error of analogue output [%] | <3 |
| Notes on the accuracy / deviation | The indicated values are reached after a warm-up time of min. 20 minutes |
| Repeatability | 1 % |
| Resolution [mm] | 3 |
| Response times | |
| Response time [ms] | < 700; (analogue 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 |



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| Interfaces | | |
|---------------------------------|---|--|
| Communication interface | IO-Link | |
| Transmission type | COM2 (38,4 kBaud) | |
| IO-Link revision | 1.1 | |
| SDCI standard | IEC 61131-9 | |
| Profiles | Smart Sensor: Device Identification; Multi-channel, two setpoint switching sensor, type 0 Generic Profiled Sensor; Process Data Variable; Device Diagnosis; Teach Channel | |
| SIO mode | yes | |
| Required master port type | 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 | 1101 |
| Note | For further information please see the IODD PDF file under "Downloads" | |
| 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] | 111 | |
| UL approval | Ta | -20...70 °C |
| | voltage supply | Class 2 |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight [g] | 443.5 | |
| Housing | threaded type | |
| Dimensions [mm] | M30 x 1.5 / L = 118.8 | |
| Thread designation | M30 x 1.5 | |
| Materials | stainless steel (1.4404 / 316L); PA; epoxy glass ceramics | |
| Tightening torque [Nm] | 100 | |

UIT508



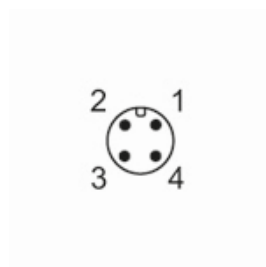
Ultrasonic diffuse reflection sensor

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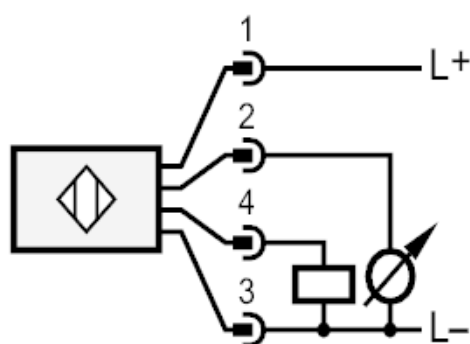
| Displays / operating elements | | |
|-------------------------------|---|-----------------|
| Display | switching status | 2 x LED, yellow |
| | echo | 1 x LED, green |
| Teach function | yes | |
| Accessories | | |
| Items supplied | lock nuts: 2, stainless steel | |
| Remarks | | |
| Remarks | operating voltage "supply class 2" according to cULus | |
| Pack quantity | 1 pcs. | |

Electrical connection

Connector: 1 x M12



Connection

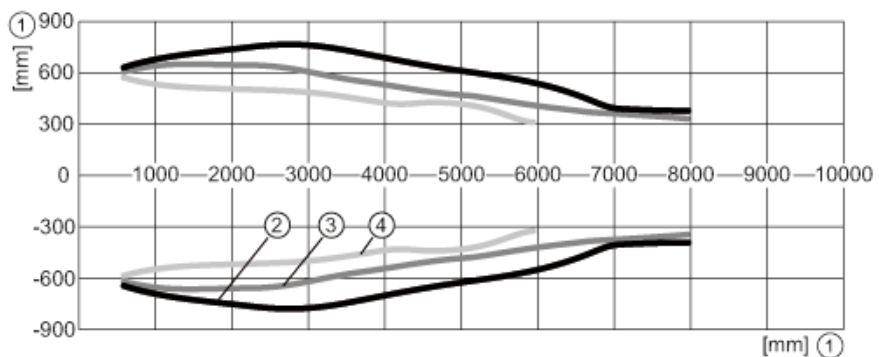




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Diagrams and graphs



- 1 distance
- 2 Standard sound beam
- 3 Medium sound beam
- 4 Narrow sound beam