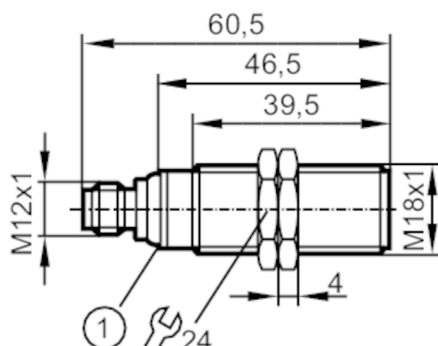




## Ultrasonic sensor

UGB01200EOKG/IO-Link/US



1 LEDs



### Product characteristics

|                         |                                                    |
|-------------------------|----------------------------------------------------|
| Electrical design       | PNP                                                |
| Output function         | normally open / normally closed; (parameterisable) |
| Sensing range [mm]      | 80...1200; (Target: 200 x 200 mm)                  |
| Communication interface | IO-Link                                            |
| Housing                 | threaded type                                      |
| Dimensions [mm]         | M18 x 1 / L = 60.5                                 |

### 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]   | 200                                     |

### Inputs / outputs

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

### Inputs

|                       |    |
|-----------------------|----|
| Synchronisation input | no |
| Multiplex input       | no |

### Outputs

|                                                      |                                                    |
|------------------------------------------------------|----------------------------------------------------|
| Total number of outputs                              | 1                                                  |
| Electrical design                                    | PNP                                                |
| 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]                          | 5                                                  |
| Short-circuit protection                             | yes                                                |
| Overload protection                                  | yes                                                |



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US

| Detection zone                                  |                                                                                                                                                                           |                                   |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Sensing range                                   | [mm]                                                                                                                                                                      | 80...1200; (Target: 200 x 200 mm) |
| Blind zone                                      | [mm]                                                                                                                                                                      | 80                                |
| Angle of aperture cylindrical                   | [°]                                                                                                                                                                       | 14; (±2)                          |
| Max. deviation from the 90° angle sensor/object | [°]                                                                                                                                                                       | ± 4                               |
| Accuracy / deviations                           |                                                                                                                                                                           |                                   |
| Temperature compensation                        |                                                                                                                                                                           | yes                               |
| Hysteresis                                      | [%]                                                                                                                                                                       | < 1                               |
| Switch point drift                              | [%]                                                                                                                                                                       | -2.5...2.5                        |
| Repeatability IO-Link                           | [%]                                                                                                                                                                       | < 0,7                             |
| Resolution                                      | [mm]                                                                                                                                                                      | 1                                 |
| Notes on the accuracy / deviation               | The indicated values are reached after a warm-up time of min. 20 minutes                                                                                                  |                                   |
| 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: 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]                                                                                                                                                                      | 16                                |
| 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                                                                                                                                                                   | 891                               |
| 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                           |

# UGT526



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US

|                      |                  |                                                                                              |
|----------------------|------------------|----------------------------------------------------------------------------------------------|
| 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]         | 210              |                                                                                              |
| UL approval          | Ta               | -20...70 °C                                                                                  |
|                      | power supply     | Class 2                                                                                      |
|                      | File number UL   | E174191                                                                                      |

### Mechanical data

|                        |                                                         |
|------------------------|---------------------------------------------------------|
| Weight [g]             | 115.5                                                   |
| Housing                | threaded type                                           |
| Dimensions [mm]        | M18 x 1 / L = 60.5                                      |
| Thread designation     | M18 x 1                                                 |
| Materials              | stainless steel (316L/1.4404); PA; epoxy glass ceramics |
| Tightening torque [Nm] | 50                                                      |

### Displays / operating elements

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

### 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; coding: A



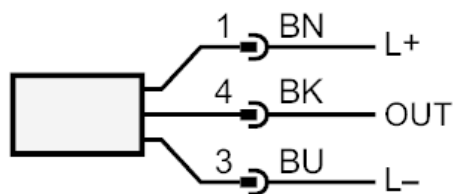
# UGT526



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US

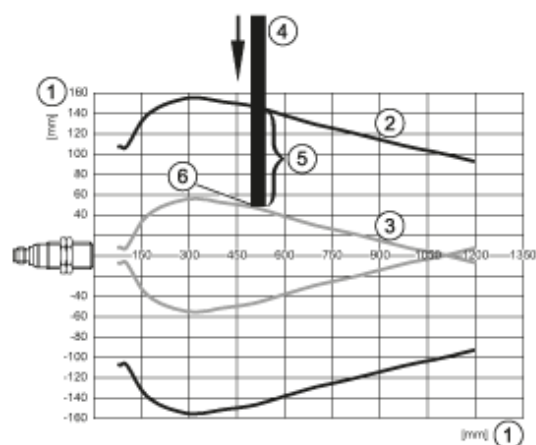
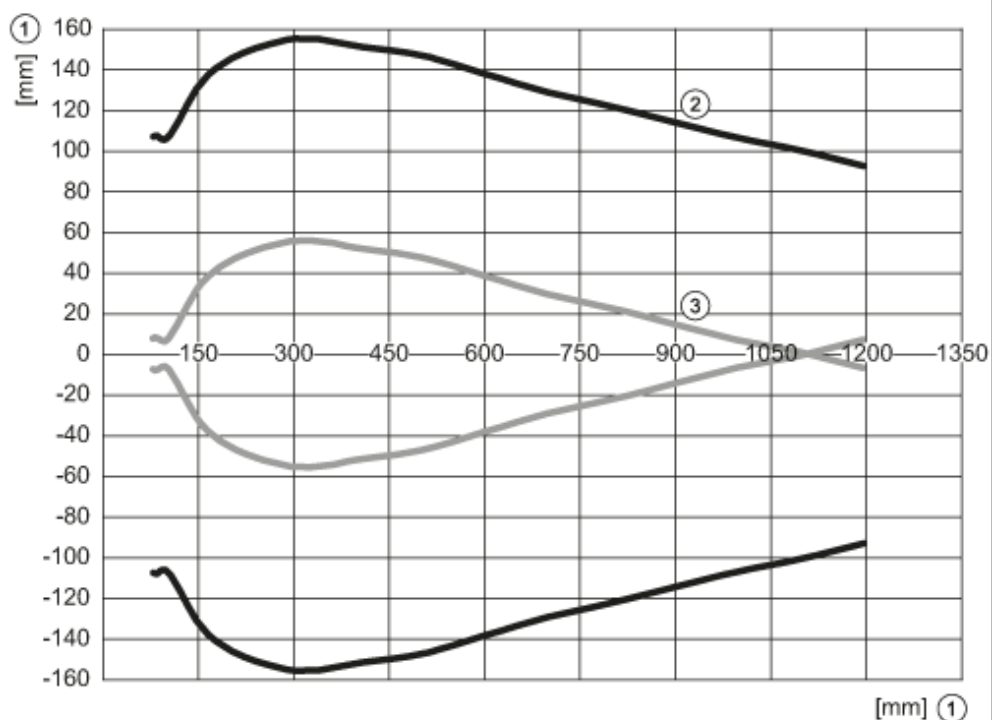
### Connection



OUT: switching output / IO-Link



### 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