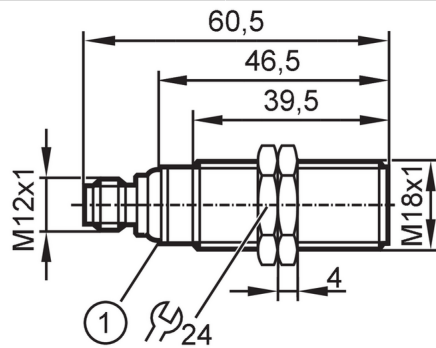


# UGT526



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US



1 LEDs



### Product characteristics

|                         |                                        |
|-------------------------|----------------------------------------|
| Electrical design       | PNP                                    |
| Output function         | normally open / closed; (configurable) |
| 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; (cULus - Class 2 source required) |
| 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

|                       |    |
|-----------------------|----|
| Synchronization input | no |
| Multiplex input       | no |

### Outputs

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

# UGT526



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US

| Monitoring range                                    |                                                                                                                                                                                                                                                                       |                   |            |               |     |               |   |                              |   |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------|---------------|-----|---------------|---|------------------------------|---|
| 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 - 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]                        | 16                                                                                                                                                                                                                                                                    |                   |            |               |     |               |   |                              |   |
| IO-Link process data (cyclical)                     | <table border="1"> <thead> <tr> <th>Function</th> <th>bit length</th> </tr> </thead> <tbody> <tr> <td>process value</td> <td>16</td> </tr> <tr> <td>device status</td> <td>4</td> </tr> <tr> <td>binary switching information</td> <td>2</td> </tr> </tbody> </table> | Function          | bit length | process value | 16  | device status | 4 | binary switching information | 2 |
| 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                                 | <table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>891</td> </tr> </tbody> </table>                                                                                                        | Type of operation | DeviceID   | default       | 891 |               |   |                              |   |
| Type of operation                                   | DeviceID                                                                                                                                                                                                                                                              |                   |            |               |     |               |   |                              |   |
| default                                             | 891                                                                                                                                                                                                                                                                   |                   |            |               |     |               |   |                              |   |
| Note                                                | For further information please see the IODD PDF file at "Downloads"                                                                                                                                                                                                   |                   |            |               |     |               |   |                              |   |
| Operating conditions                                |                                                                                                                                                                                                                                                                       |                   |            |               |     |               |   |                              |   |
| Ambient temperature [°C]                            | -20...70                                                                                                                                                                                                                                                              |                   |            |               |     |               |   |                              |   |
| Storage temperature [°C]                            | -30...80                                                                                                                                                                                                                                                              |                   |            |               |     |               |   |                              |   |
| Protection                                          | IP 67                                                                                                                                                                                                                                                                 |                   |            |               |     |               |   |                              |   |

# UGT526



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US

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

| Mechanical data        |  |                                                           |
|------------------------|--|-----------------------------------------------------------|
| Weight [g]             |  | 76.7                                                      |
| Housing                |  | Threaded type                                             |
| Dimensions [mm]        |  | M18 x 1 / L = 60.5                                        |
| 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 | 1 x LED, yellow |
|                               | echo             | 1 x LED, green  |

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

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

### Electrical connection

Connector: 1 x M12; coding: A



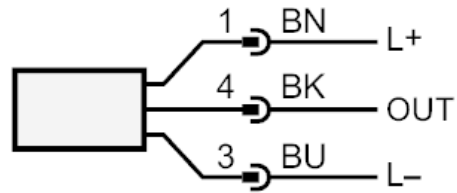
# UGT526



## Ultrasonic sensor

UGB01200EOKG/IO-Link/US

### Connection



OUT: Switching output / IO-Link

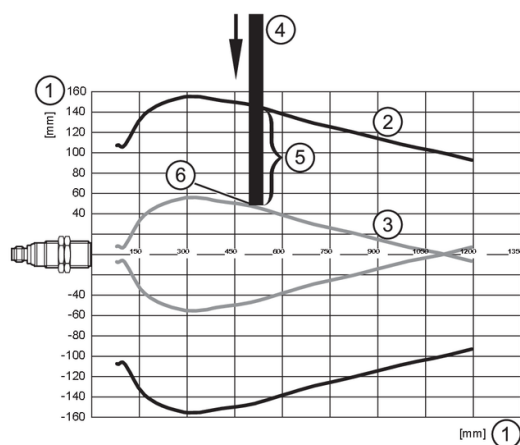
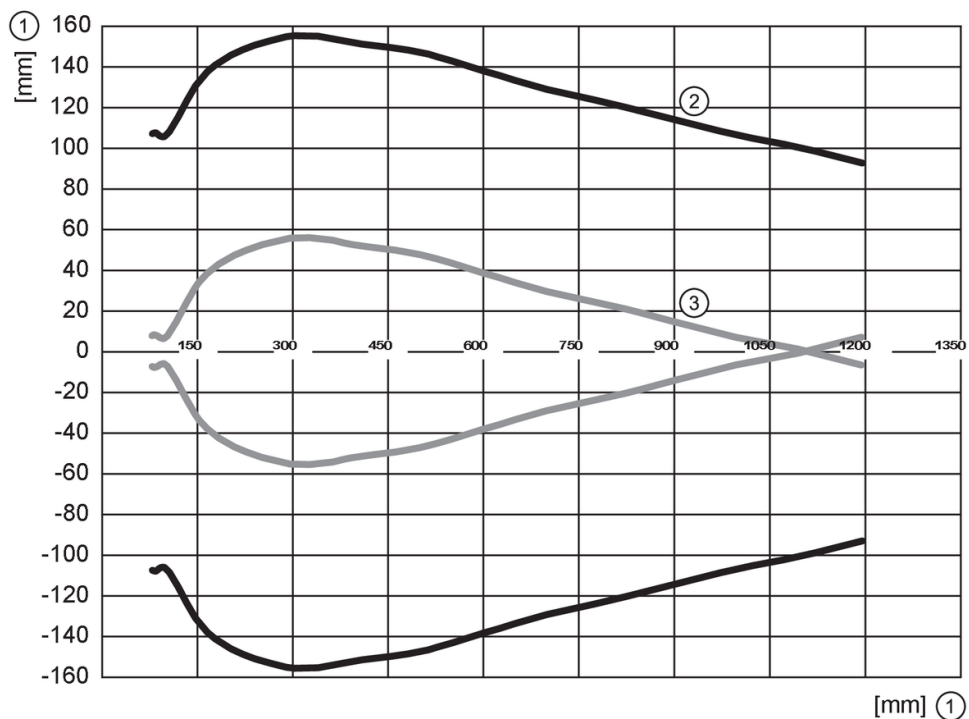
# UGT526

## Ultrasonic sensor

UGB01200EOKG/IO-Link/US



### 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