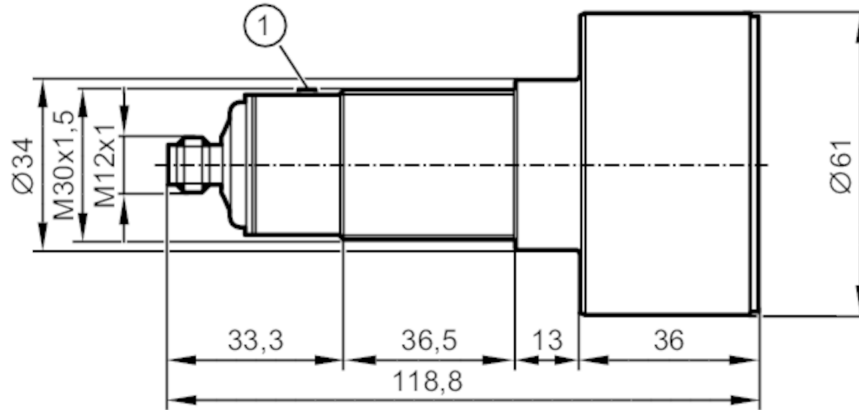


# UIT508



## Ultrasonic sensor

UIA08000E2KG/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

# UIT508



## Ultrasonic sensor

UIA08000E2KG/IO-Link/US

Analog voltage output	[V]	0...10
Min. load resistance	[Ω]	3000
Short-circuit protection		yes
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: 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 class	A								
Min. process cycle time	[ms] 3.2								
IO-Link process data (cyclical)	<table><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><thead><tr><th>Type of operation</th><th>DeviceID</th></tr></thead><tbody><tr><td>default</td><td>1101</td></tr></tbody></table>	Type of operation	DeviceID	default	1101				
Type of operation	DeviceID								
default	1101								
Note	For further information please see the IODD PDF file at "Downloads"								

### Operating conditions

Ambient temperature	[°C]	-20...70
Storage temperature	[°C]	-30...80

# UIT508



## Ultrasonic sensor

UIA08000E2KG/IO-Link/US

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]		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
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, stainless steel
----------------	-------------------------------

### Remarks

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

### Electrical connection

Connector: 1 x M12; coding: A

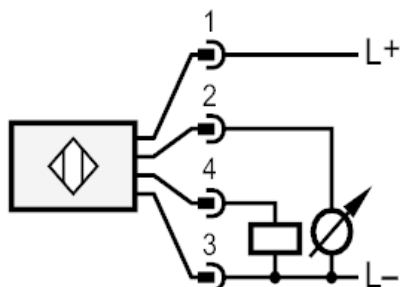




## Ultrasonic sensor

UIA08000E2KG/IO-Link/US

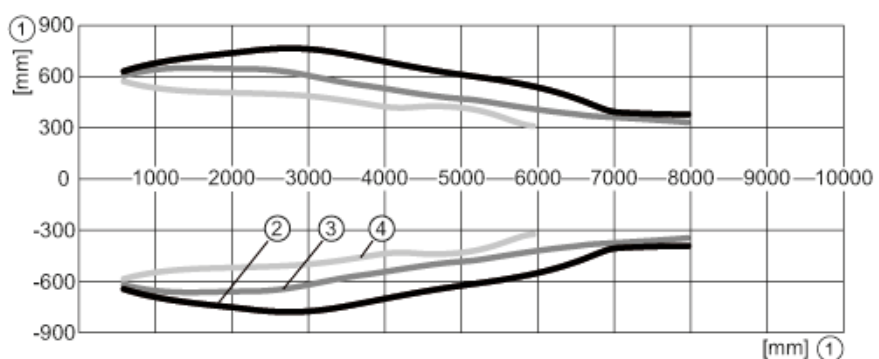
### Connection



4

IO-Link

### Diagrams and graphs



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