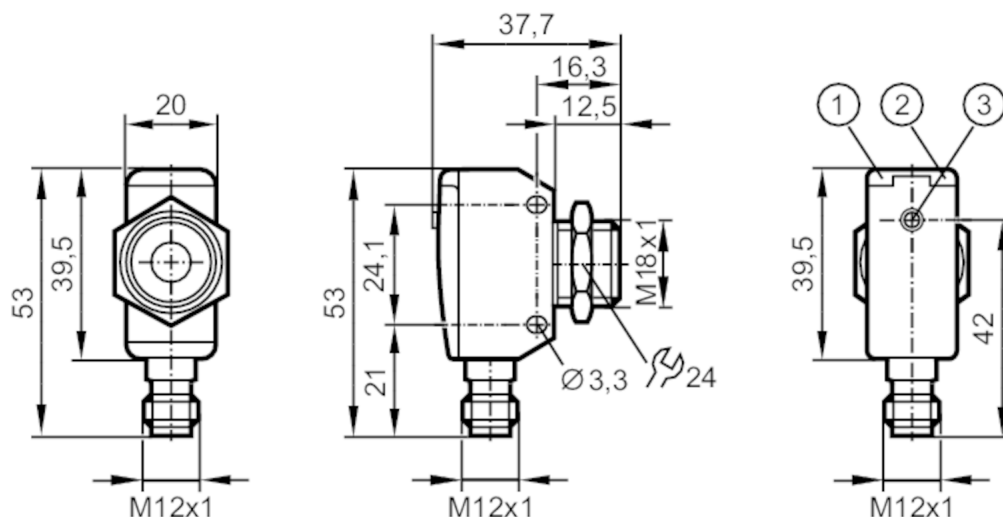


UGT593



Ultrasonic sensor

UGQ00800EOKG/IO-Link/US



- 1 LED echo
- 2 LED switching status
- 3 teach button



Product characteristics

Electrical design	PNP
Output function	normally open / normally closed; (parameterisable)
Sensing range [mm]	60...800; (Target: 100 x 100 mm)
Communication interface	IO-Link
Housing	rectangular with M18 thread
Dimensions [mm]	53 x 20 x 37.7

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]	230

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 1
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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



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Switching frequency DC	[Hz]	5
Short-circuit protection		yes
Overload protection		yes

Detection zone		
Sensing range	[mm]	60...800; (Target: 100 x 100 mm)
Blind zone	[mm]	60
Angle of aperture cylindrical	[°]	15; (±2)
Max. deviation from the 90° angle sensor/object	[°]	± 4

Accuracy / deviations		
Temperature compensation		yes
Hysteresis	[%]	< 1
Switch point drift	[%]	-2...2
Repeatability IO-Link	[%]	< 0,7
Repeatability		1 %
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 type		A
Min. process cycle time	[ms]	10
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	887
Note		For further information please see the IODD PDF file under "Downloads"

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

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Protection	IP 67
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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]		201
UL approval	Ta	-20...70 °C
	power supply	Class 2
	File number UL	E174191

Mechanical data

Weight [g]	98
Housing	rectangular with M18 thread
Dimensions [mm]	53 x 20 x 37.7
Thread designation	M18 x 1
Materials	stainless steel (630/1.4542/17-4 PH); PBT; PA; epoxy glass ceramics
Tightening torque [Nm]	50

Displays / operating elements

Display	switching status	1 x LED, yellow
	echo	1 x LED, green
Teach function		yes

Accessories

Items supplied	lock nuts: 1 x M18, stainless steel
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Remarks

Remarks	operating voltage "supply class 2" according to cULus
Pack quantity	1 pcs.

Electrical connection

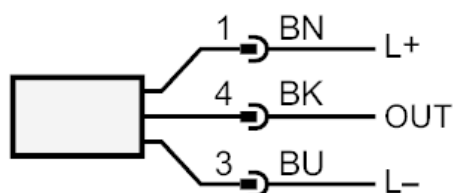
Connector: 1 x M12; coding: A



Ultrasonic sensor

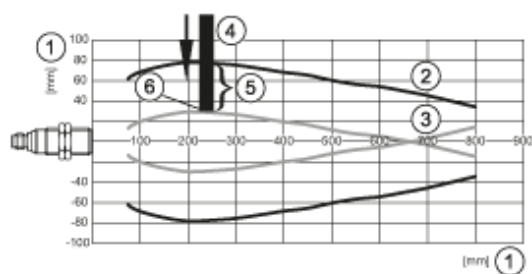
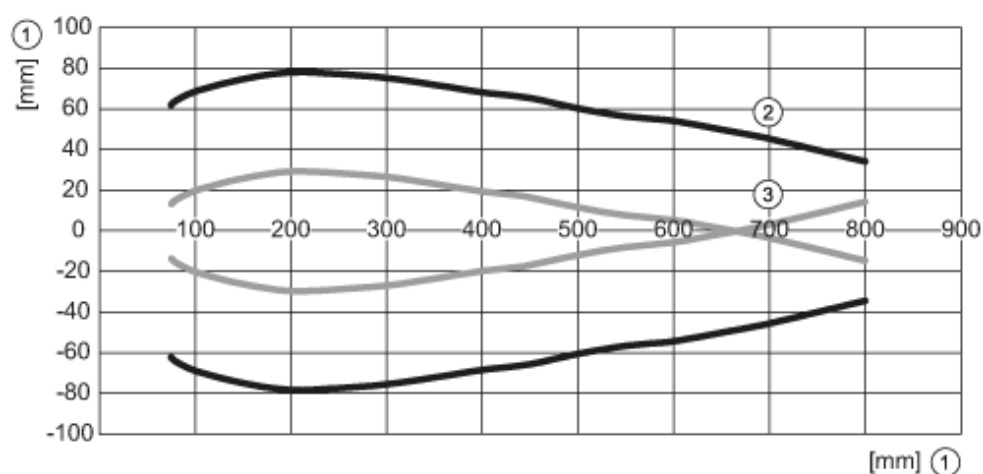
UGQ00800EOKG/IO-Link/US

Connection



OUT: switching output / IO-Link

Diagrams and graphs



- 1: distance
- 2: Detection zone
- 3: switch-on/switch-off graph
- 4: Target 100 x 100 mm
- 5: 50% of the target in the detection zone
- 6: switch point