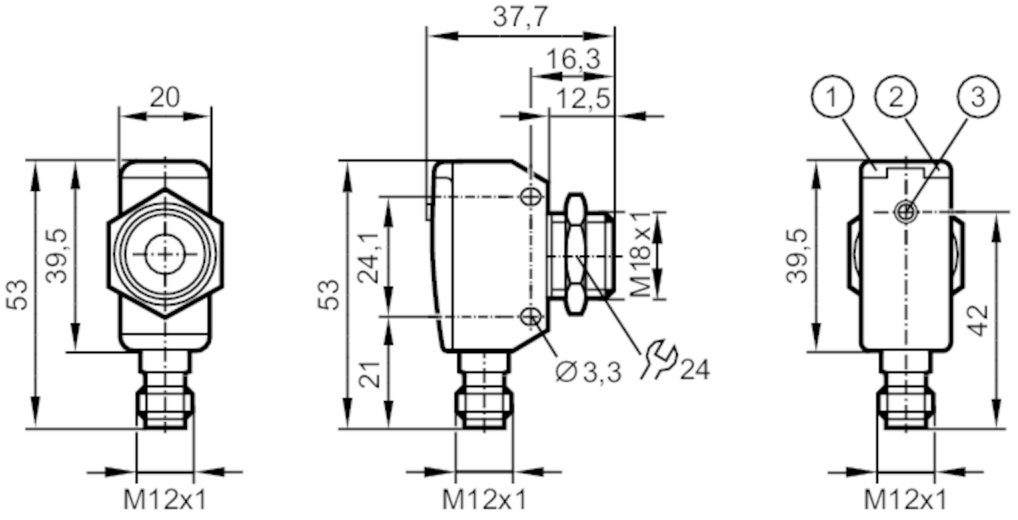
UGT593

Ultrasonic diffuse reflection sensor

UGQ00800EOKG/IO-Link/US



1 LEDs
2 teach button

Product characteristics		
Electrical design		PNP
Output function		normally open / closed; (configurable)
Sensing range	[mm]	60...800; (Target: 100 x 100 mm)
Communication interface		IO-Link
Housing		rectangular
Dimensions	[mm]	M18 x 1
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]	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 / 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
Monitoring range		
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
Notes on the accuracy / deviation		The indicated values are reached after a warm-up time of min. 20 minutes
Repeatability		1 %
Resolution	[mm]	1
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 class		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 at "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, 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]	201	
UL approval		Ta	-20...70 °C
		voltage supply	Class 2
		File number UL	E174191
Mechanical data			
Weight	[g]	98	
Housing		rectangular	
Dimensions	[mm]	M18 x 1	
Thread designation		M18 x 1	
Material		1.4542 (17-4 PH / 630); PBT; PA; epoxy glass ceramics	
Tightening torque	[Nm]	50	

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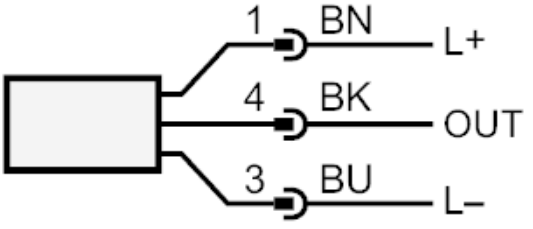
Displays / operating elements		
Display	Switching status	1 x LED, yellow
	echo	1 x LED, green
Teach function	yes	
Accessories		
Items supplied	lock nuts: 1, stainless steel	
Remarks		
Remarks	cULus - Class 2 source required	
Pack quantity	1 pcs.	
Electrical connection		

Connector: 1 x M12

Connection



OUT: Switching output / IO-Link

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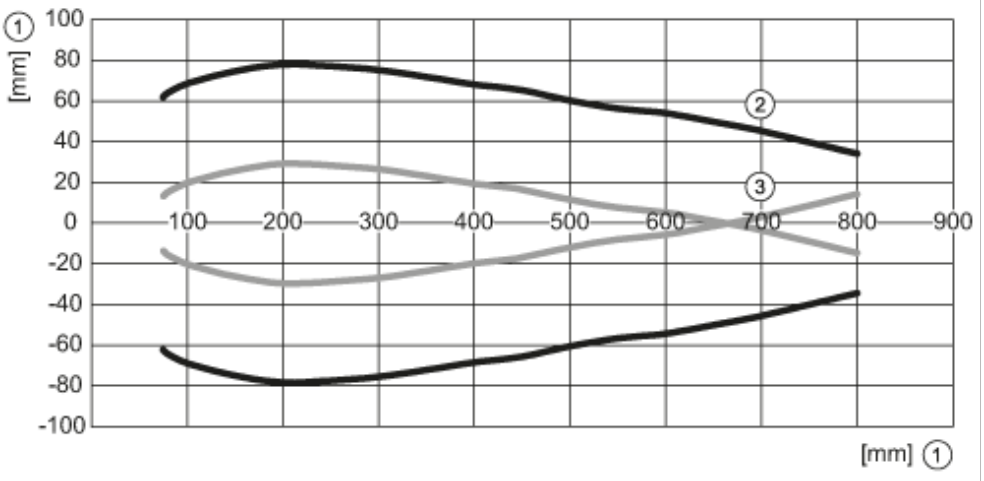
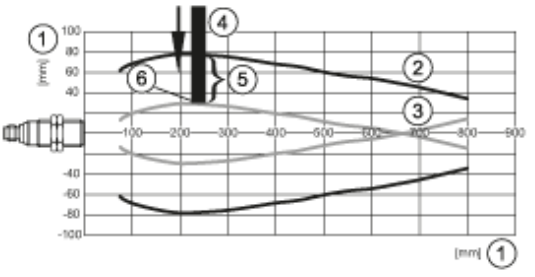
Diagrams and graphs





1: Distance

2: Monitoring range

3: switch-on/switch-off graph

4: Target 100 x 100 mm

5: 50 % of the target in the detection zone

6: Set point