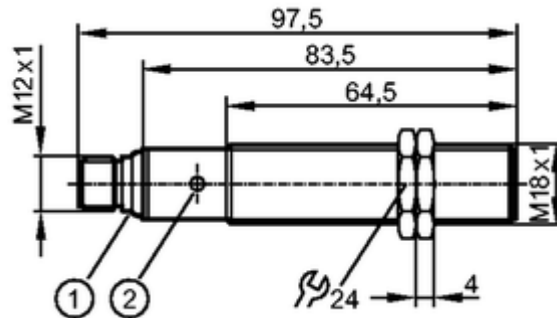


efector230**UGT513**

UGA02200E1KG/IO-LINK/US

Ultrasonic sensors



- 1: LEDs
2: teach button

**Product characteristics**

Ultrasonic diffuse-reflection sensor

Threaded type

M18 x 1

Quick disconnect

Teach function

Electrical data

Electrical design	DC PNP
Operating voltage [V]	10...30 DC; cULus - Class 2 source required
Current consumption [mA]	55
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	< 0.3
Converter frequency [kHz]	200

Inputs

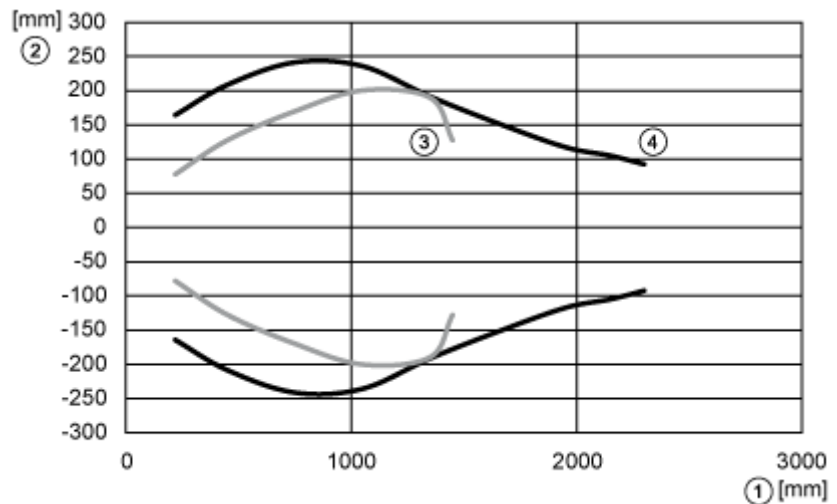
Teach	yes
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Outputs

Output function	1 x NO / NC programmable + 1 x analog current
Current rating [mA]	100
Voltage drop [V]	2.2
Short-circuit protection	yes
Overload protection	yes
Analog output	
current output [mA]	4...20
Max. load [Ω]	500
Switching frequency [Hz]	2

Monitoring range

Sensing range [mm]	2200
blind zone [mm]	200
Response curve	



1: Distance; 2: Sound beam; 3: Target Ø 25 mm; 4: Target 200 x 200 mm

Angle of aperture [°]	8 ± 2
Max. deviation from the 90° angle sensor / object [°]	± 4

Accuracy / deviations

Notes on the accuracy / deviation	The indicated values are reached after a warm-up time of ≥ 20 minutes
Temperature compensation	yes
Hysteresis [%]	1
Switch-point drift [%]	± 2
Linearity error [%]	1
Resolution [mm]	< 3
Repeatability [%]	0.5

Interfaces

IO-Link Device

Transfer type	COM2 (38.4 kBaud)
IO-Link revision	1.1
SDCI standard	IEC 61131-9
Profiles	Smart Sensor: Process Data Variable; Device Identification
SIO mode	yes
Required master port class	A

Environment

Ambient temperature [°C]	-20...70
Protection	IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD:	4 kV CD / plastics 8 kV AD / metal
	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
MTTF [Years]	142	
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	yes

Mechanical data

Housing materials	316L stainless steel / 1.4404; polyamide; Epoxid-Glaskeramik
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Weight [kg]	0.1
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Displays / operating elements	
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Display	Switching status	2 LED yellow
	Echo LED	1 LED green

Electrical connection	
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Connection	M12 connector
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Wiring	
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Pin 4 = IO-Link

Accessories	
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Accessories (included)	2 fixing nuts, stainless steel; 2 Flat SS washers
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Remarks	
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Remarks	cULus - Class 2 source required
Pack quantity [piece]	1

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