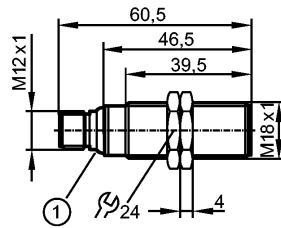




UGT502

UGB0030002OG/US

Ultrasonic sensors



1: LEDs



Product characteristics

Ultrasonic diffuse-reflection sensor

Threaded type

M18 x 1

Connector

Teach function

Electrical data

Electrical design	DC analogue
Operating voltage [V]	10...30 DC
Current consumption [mA]	< 35
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	0.1
Converter frequency [kHz]	300

Inputs

Teach	yes
Synchronisation	no
Multiplex	no

Outputs

Output function	0...10 V analogue
Current rating [mA]	100
Voltage drop [V]	2.2
Short-circuit protection	yes
Overload protection	yes
Analogue output	
voltage output [V]	0...10
Min. load resistance [Ω]	3000

Range

Sensing range [mm]	300
blind zone [mm]	40

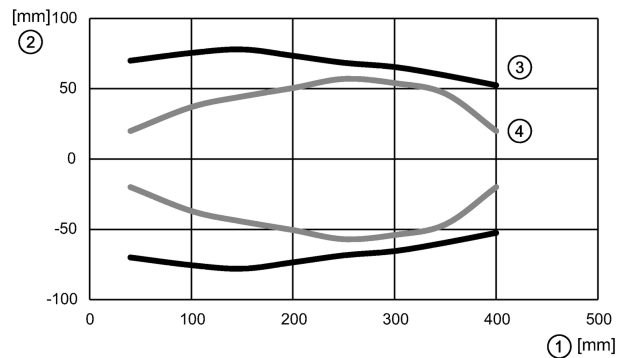


UGT502

UGB0030002OG/US

Ultrasonic sensors

Response curve



1: Distance; 2: Sound beam; 3: Target 100 x 100 mm; 4: Target Ø 25 mm

Angle of aperture [°]	7 ±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 [%]	± 2.5
Linearity error [%]	< 1
Resolution [mm]	3
Repeatability [%]	< 0.7

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
Vibration resistance	(10-55) Hz 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz EN 60068-2-6 Fc
Shock resistance	EN 60068-2-27 Ea yes

Mechanical data

Housing materials	1.4404; polyamide; Epoxid-Glaskeramik
Weight [kg]	0.095

Displays / operating elements

Display	Switching status 1 LED yellow Echo LED 1 LED green
---------	---

Electrical connection

Connection	M12 connector
------------	---------------

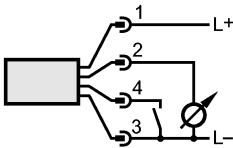
Wiring



UGT502

UGB0030002OG/US

Ultrasonic sensors



4: Teach

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