

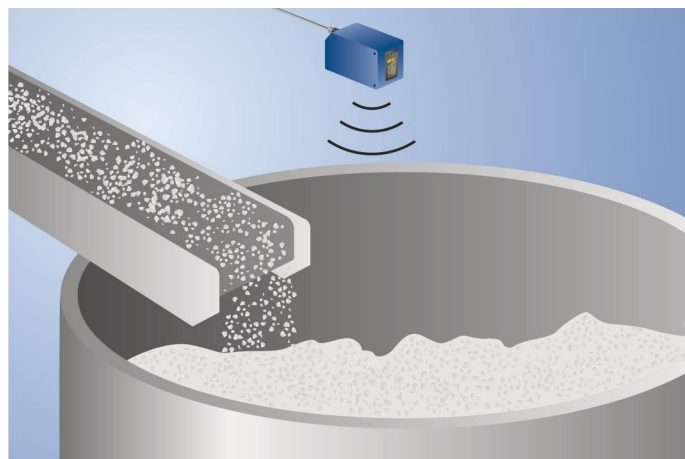
Distance Sensor

UMS603U035



- Digital and analog output
- Menu-driven settings
- Synchronous and multiplex mode
- Temperature drift eliminable

These ultrasonic sensors evaluate the sound reflected from the object. They can detect almost any object and are especially well suited for monitoring fill levels of liquids and bulk goods and for detecting transparent objects. The sensor detects objects regardless of material, state of matter, color or degree of transparency. The graphical display is menu-guided for easy setup of the sensors. The IO-Link interface makes parametrization and diagnosis quick and easy. The sensor can only be used in reflex mode operation.



Ultrasonic Data

Working Range	300...6000 mm
Measuring Range	5700 mm
Reproducibility maximum	5 mm
Linearity Deviation	20 mm
Resolution	1 mm
Ultrasonic Frequency	75 kHz
Opening Angle	< 14 °
Service Life (T = +25 °C)	100000 h
Switching Hysteresis	30 mm

Electrical Data

Supply Voltage	18...30 V DC
Current Consumption (U _b = 24 V)	< 50 mA
Switching Frequency	1,5 Hz
Response Time	< 334 ms
Temperature Range	-30...60 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	100 mA
Analog Output	4...20 mA
Synchronous Mode	up to 40 sensors
Multiplex Mode	up to 16 sensors
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Interface	IO-Link V1.0
Protection Class	III

Mechanical Data

Setting Method	IO-Link
Setting Method	Menu (OLED)
Housing Material	Epoxy resin/glass bubble mixture
Housing Material	Plastic, PBT
Housing Material	Plastic, PU
Housing Material	Silicone
Sensing face	Plastic, ABS
Degree of Protection	IP67
Connection Type	Plug variant
Connection	M12 × 1; 5-pin

Safety-relevant Data

MTTFd (EN ISO 13849-1)	493,35 a
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Function

Selectable menu language	yes
Password Protection	yes
Scope of delivery	1 × initial start-up instructions 1 × sensor

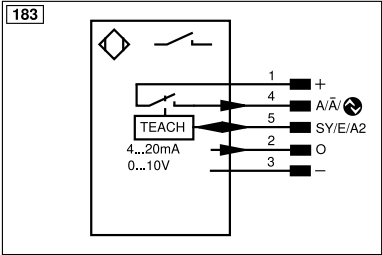
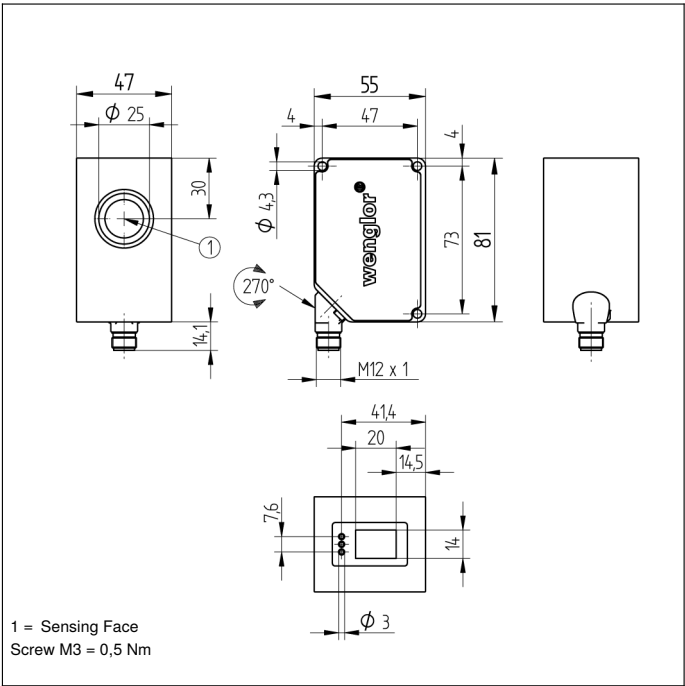
Error Output	●
PNP NO	●
Analog Output	●
IO-Link	●

Connection Diagram No.	183
Suitable Connection Equipment No.	2 35
Suitable Mounting Technology No.	340

Display brightness may decrease with age. This does not result in any impairment of the sensor function.

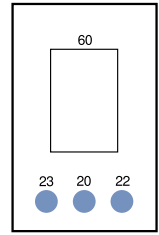
Complementary Products

Analog Evaluation Unit AW02
IO-Link Master
PNP-NPN Converter BG2V1P-N-2M
Software



Ctrl. Panel

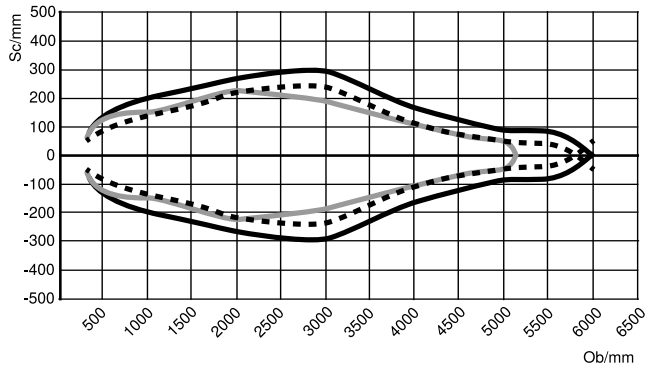
X2



20 = Enter key
22 = Up key
23 = Down key
60 = display

Characteristic response curve

Characteristic curves show the position of the center or the front edge of the measured object (100 × 100 mm plate) at the time of switching.
UMS603U035



Ob = Object
Sc = Sonic cone width

— Standard sonic cone
(center of the measured
object)
- - - Extra-narrow sonic
cone (center of the
measured object)
... Standard sonic cone
(front edge of the
measured object)