

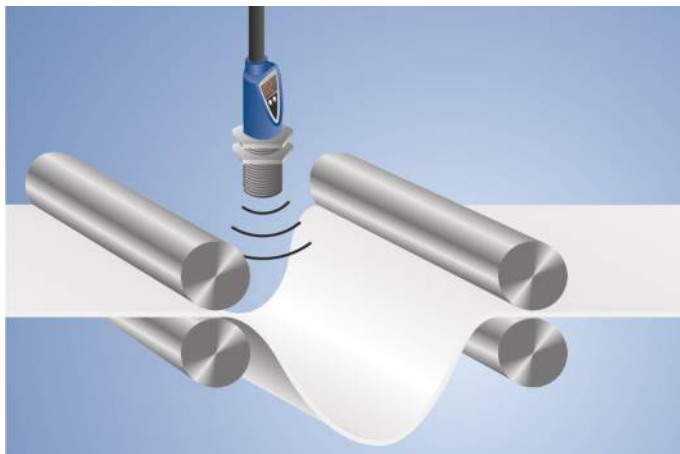
# Distance Sensor

## UMF303U035



- Digital and analog output
- Stainless steel housing
- Synchronous and multiplex mode
- Temperature drift eliminable

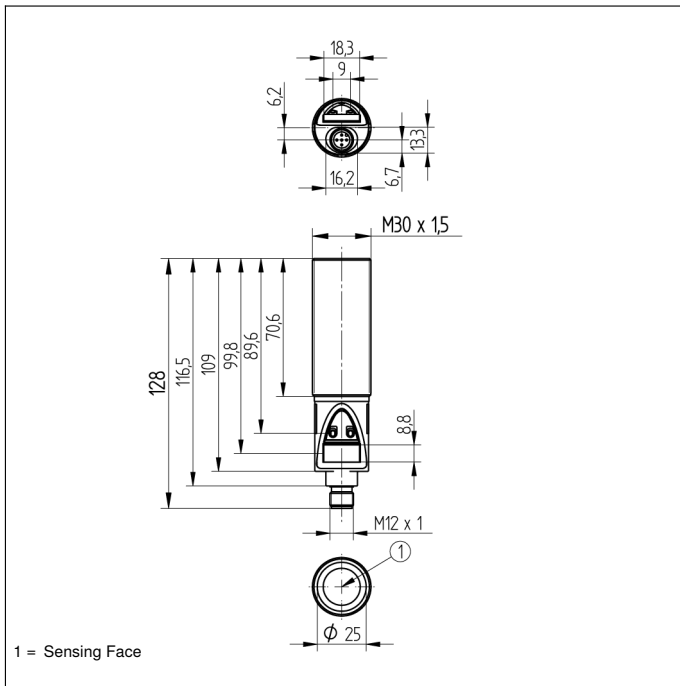
These ultrasonic sensors evaluate the sound reflected by the object. They detect almost every object and are suited especially for the filling level monitoring of fluids or bulk material or the detection of transparent objects. The sensor detects objects independent from their material, aggregate state, color or transparency. The sensors can be adjusted easily by the 4-digit 7-segment display. Convenient programming and quick diagnosis is possible via the IO-Link interface. The sensor can only be used in reflex mode operation.



Ultrasonic Data	
Working Range	200...3000 mm
Measuring Range	2800 mm
Reproducibility maximum	4 mm
Linearity Deviation	4 mm
Resolution	0,3 mm
Ultrasonic Frequency	120 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 <sub>b</sub> = 24 V)	< 40 mA
Switching Frequency	3 Hz
Response Time	167 ms
Temperature Range	-30...60 °C
Number of Switching Outputs	1
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	100 mA
Analog Output	0...10 V
Synchronous Mode	up to 40 sensors
Multiplex Mode	up to 16 sensors
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Interface	IO-Link V1.0
Protection Class	III
Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic, ABS
Housing Material	Stainless steel, V2A (1.4305 / 303)
Sensing face	Epoxy resin/glass bubble mixture
Sensing face	Plastic, PBT
Sensing face	Silicone
Degree of Protection	IP67
Connection	M12 × 1; 4/5-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	725,66 a
Error Output	●
PNP NO	●
Analog Output	●
IO-Link	●
Connection Diagram No.	184
Control Panel No.	U1
Suitable Connection Equipment No.	2   35
Suitable Mounting Technology No.	130

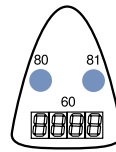
### Complementary Products

Analog Evaluation Unit AW02
Baffle Plate Z0023, Z0024
IO-Link Master
PNP-NPN Converter BG2V1P-N-2M
Software

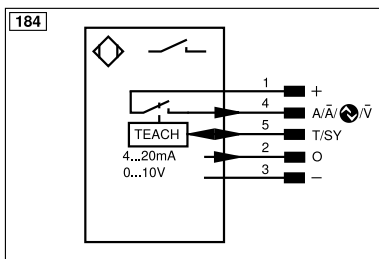


### Ctrl. Panel

U1



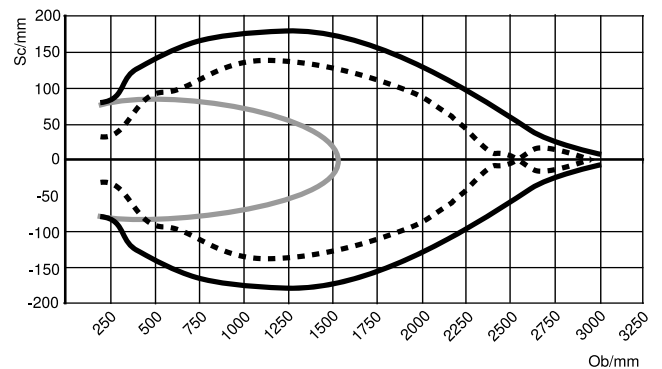
60 = display  
 80 = Mode Button/Switching Status Indicator  
 81 = Plus Button/Error Warning



### 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.

UMF303U035



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)

