1000mm Ultrasonic Level Sensor UM1000
Specification

I.Product Features

The UM1000 integrated ultrasonic level gauge is an intelligent non-contact level measuring instrument. The product is small size, low power consumption, gain control, temperature compensation, and adopts advanced detection and calculation technology to improve the measurement accuracy of the instrument. It has a suppression function for interference signals to ensure the authenticity of the measurement results. The product can be widely used for measuring the liquid level of various liquids and the height of solid materials, as well as for measuring distance.

II. Application

Liquid level measurement
Container water level monitoring
Material level/height

III: Parameters

Technical data	
General Specifications	
Sensing distance	100...1000mm
Adjustment range	100...1000mm
Unusable area	0…100mm
Standard target plate	100mm×100mm
Transducer frequency About	200 kHz

Response delay About	85ms
Indicators/Operating means	
LED yellow	solid:　NO LED flash：
LED red	flashing:
Electrical specifications	
Operating voltage U$_B$	6---12VDC ripple10%ss
No-load supply current	≤15mA
Output	
Output type	1 output RS485/TTL/0-5V/4-20mA
Resolution	
Deviation of the characteristic curve	±1% of full-scale value
Repeat accuracy	±0.1% of full-scale value
Load impedance	>1k Ohm
Maximum switching current	mA
Temperature influence	±1.5% of full-scale value
Ambient conditions	
Ambient temperature	-25…70°C
Storage temperature	-40…85°C
Mechanical specifications	
Protection grade	IP67
Connection	PVC cable,4-PIN
Material	

Housing	PBT OR FRP
Transducer	Epoxy resin/hollow; Polyurethane foam
Weight	70g
Compliance with standards and Directives	
Standard conformity	EN 60947-5-2:2020

IV. Wire connection

1 BN=BROWN
2 GN=GREEN
3 BU=BLUE
4 BK=BLACK
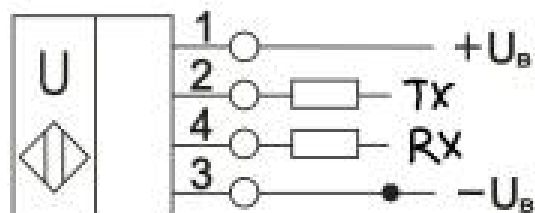
V: Adjusting the evaluation limits

The ultrasonic sensor features an analogue output with two teachable evaluation limits. These are set by applying the supply
voltage $-U_B$ or $+U_B$ to the TEACH-IN input. The supply voltage must be applied to the TEACH-IN input for at least 1 s.
indicate whether the sensor has recognised the target during the TEACH-IN procedure. The lower evaluation limit A1 is taught
with $-U_B$, A2 with $+U_B$.
Two different output functions can be set:
1. Analogue value increases with rising distance to object (rising ramp)
2. Analogue value falls with rising distance to object (falling ramp)
Evaluation limits may only be specified within the first 5 minutes after

Power on. To modify the evaluation limits later,
the user may specify the desired values only after a new Power On.

TEACH-IN rising ramp (A2 > A1)

- Position object at lower evaluation limit

- TEACH-IN lower limit A1 with - U_B

- Position object at upper evaluation limit

- TEACH-IN upper limit A2 with + U_B

TEACH-IN falling ramp (A1 > A2):

- Position object at lower evaluation limit

- TEACH-IN lower limit A2 with + U_B

- Position object at upper evaluation limit

- TEACH-IN upper limit A1 with - U_B


Default setting

A1: unusable area

A2: nominal sensing range

Mode of operation: rising ramp

LED Displays (SMP80 series no led)

Displays in dependence on operating mode	Red LED	Yellow LED
TEACH-IN evaluation limit		
Object detected	off	flashes
No object detected	flases	off
Object uncertain (TEACH-IN invalid)	on	off
Normal mode (evaluation range)	off	on
Fault	on	previous state

Analog output operating modes
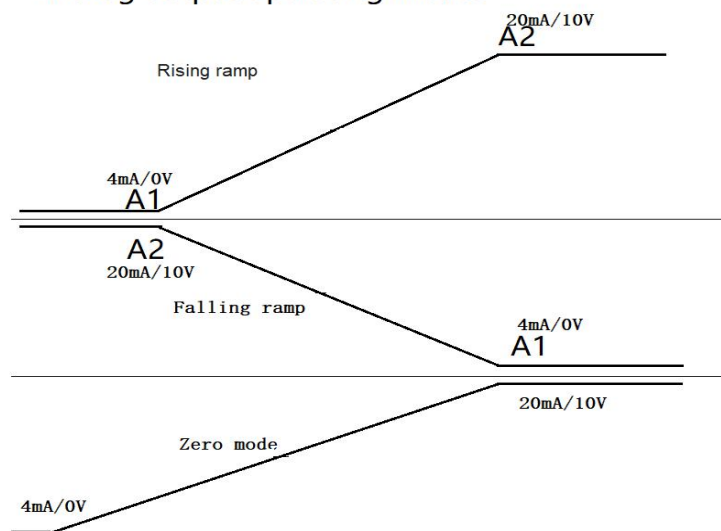
MIC METERING (SHENZHEN) LIMITED
Adress: 643-648, Zone A, Block B, Qinghu Science Park, Longhua, Shenzhen, China
Tel/WhatsApp: +86 13923792185
Email: robert@micmetering.com