



Description

The AM-UST-mini is arguably the most compact, most rugged and most cost-effective level transducers on the market. It is perfect for level measurement less than 13 feet. When connected with the 2300 Controller it is a complete process automation system for level control.

Inside the Mini is a full feature ultrasonic transducer that outputs directly either a 4-20 mA analog signal or two Modbus over RS485 digital signals. The unit is powered by a 15 -24 VDC power supply.

With an RS 485 connection to any Windows computer the user can customize both the distance range, offset and span. The software (included) also allows one to adjust the Modbus signal for sampling rate, signal averaging, loss of echo time-out, set-point hysteresis and even view the signal waveform for diagnostic purposes. The multi-drop communication network allows up to 32 sensors to be connected in parallel.

We call this the “mini” but its durability is anything but. It satisfies NEMA 4X and IP67 ratings and operates from -20 °C to 65 °C—with built-in temperature compensation. Let’s not forget protection of over-voltage, short-circuits and reverse polarity.

Features

- Non-contact ultrasonic level measurement
- Narrow 8 degree beam angle
- Outputs 0-20 mA and RS-485.
- Plug-and-play setup. No calibration.
- Intuitive software included.
- Software control of analog range, span and offset
 - Software for digital sampling rate, signal averaging, loss of echo time-out and set-point hysteresis.
 - Display of waveform to diagnose signals from difficult applications.
 - Up to 32 sensors can be connected in parallel.
- 12-24 VDC power supply
- 1” MNPT fitting and L mounting bracket
- NEMA 4X / IP 67
- Combine with 2300 Controller for complete automation.

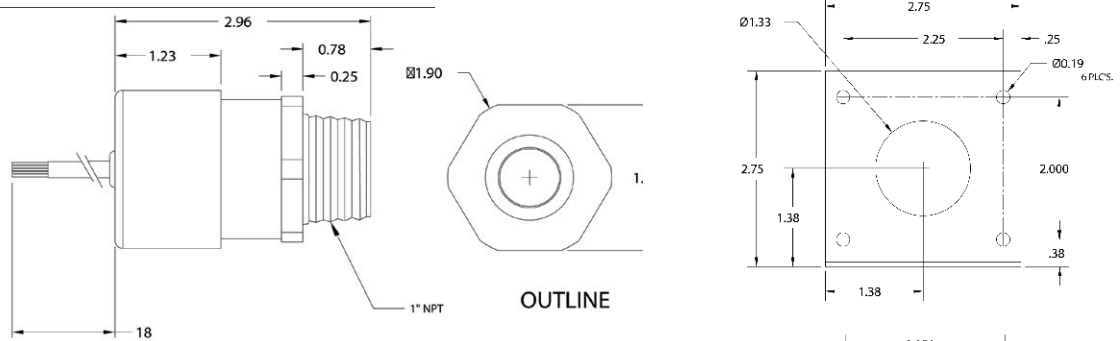
Applications

- Liquid level control
- Viscous or corrosive liquids
- Mechanical positioning
- Automatic filling operations
- Paper/plastic film monitoring
- Roll diameter measurement

Model AM-UST-mini Ultrasonic Level Transducers

	AM-UST-mini-2	AM-UST-mini-4
Measurement Range	0.1 to 2.1 m (0.3 to 7 ft) or	0.2 to 4 m (1 to 13 ft)
Deadband (Near Blanking)	0.1 m (0.3 ft)	0.2 m (0.6 m)
Resolution	0.25 mm (0.01 in)	0.25 mm (0.01 in)
Frequency	150 KHz	95 KHz
Accuracy	Greater of 0.1% of range or 2 mm	
Sensor Beam Angle	8 degrees conical	
Echo Detection Sensitivity	User Selectable	
Power required	12 to 24 VDC	
Temperature Compensation	Internal Sensor	
Analog Output	0-20 mA or 0 to 10 V, 10 bit resolution	
Digital Communication	RS-485/232	
Sampling Rate	0.05 to 25 Hz (Factory default is 10 Hz)	
Trigger Modes	Internal or software	
Distance Averaging	Rolling average from 1 to 32 samples or Boxcar average from 1 to 1024 samples.	
Loss of Echo Time-out	User selectable from 1 to 254 continuous samples (Default is 1)	
Set-point Hysteresis	Programmable from 0 to 75%	
Operating Temperature Range	-20 °C to 65 °C (-40 °F to 185 °F)	
Relative Humidity Range	0 to 95%, non-condensing	
Mounting	1 " NPT. Comes with mounting bracket and lock-nut	
Environmental Ratings	NEMA 4X, IP67, CE certified	
Material	Transducer surface: Customized PPA . Housing: PVC	
Cable	5-conductor, PVC jacket, 22 AWG, 46 cm (18") pigtail user extendable for RS-485 communication to 1500 m (5000 ft)	

Dimensions



Order Information

Model	Description
AM-UST-mini-2	2 meter range
AM-UST-mini-4	4 meter range

Accessories

Model	Description
AM-UST-USB-485	USB to RS 485 converter
PS-24VDC	115 VAC - 24 VDC Power Supply

Related Products

Aquametrix 2300 Multi-input Controller

AM-UST Ultrasonic Level Sensor with 2 relays

