

ULTRAFLOW U1000 Ultrasonic Flowsensor



The U1000 is an ultrasonic permanent/fixed clamp-on flow metering solution for measuring flow rate. The cost effective device can either be used as a stand alone meter or as an integral part of a control loop.

The U1000 is very simple to install - clamp it on to the pipe, connect it to power and enter the pipe diameter. No special skills or tools are required.

The clamp-on design allows the installation in running systems without opening the pipe, providing minimum downtime and maximum availability.

Compact, rugged and reliable, the U1000 has been designed to provide sustained performance in industrial environments.

Features

- Large, easy to read graphic display with backlighting
- Easy to install without special tools
- Clamp-on sensors for dry servicing
- Simple to follow programming menu
- Simple 'Quick Start' set up procedure
- Compact integral design

CE RoHS

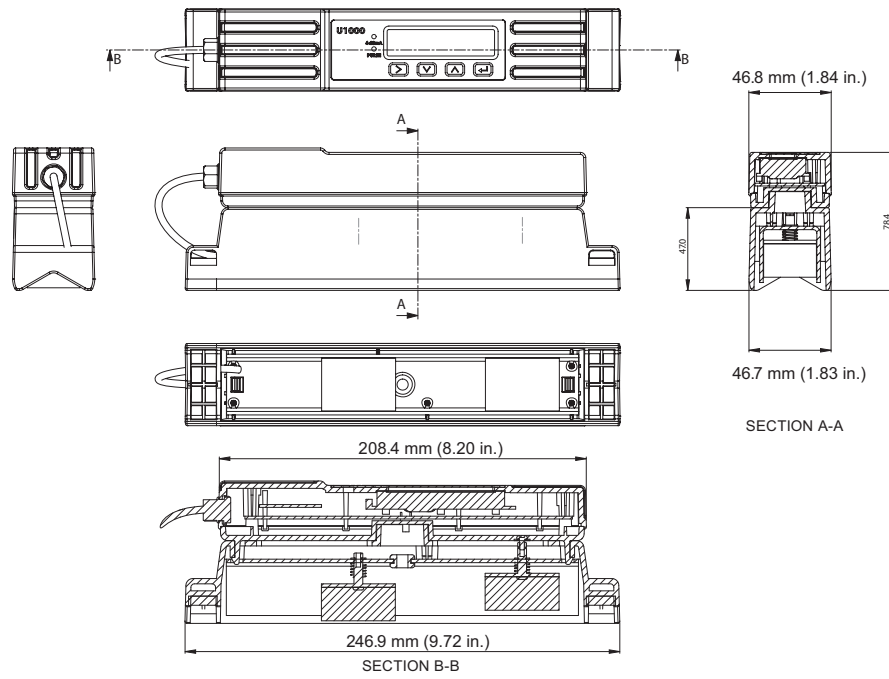
Applications

- Ultrapure water measurement
- Flow measurement for heat metering
- Chilled water metering and flow measurement
- Flow measurement for chilled water energy metering
- Process water metering and flow measurement

Specifications

General		
DSP Measurement Technique	Transit time	
Flow Velocity Range	0.1 m/s - 10 m/s; bi-directional	
Accuracy	±3 % of flow reading for flow rate >0.3 m/s	
Repeatability	±0.5 % of measured value	
Response Time	< 500 ms	
Selectable Flow Units	Velocity	m/s, ft/s
	Volume	l/s, l/min, gal/s, gal/min, USgal/s, USgal/min, m ³ /min, m ³ /h
Selectable Total Volume Units	liters, m ³ , gallons, US gallons	
Menu Languages	EN	
Environmental		
Operating Temperature	0 °C to 50 °C	-32 °F to 122 °F
Storage Temperature	-10 °C to 60 °C	-14 °F to 140 °F
Pipe Wall Temperature	0 °C to 85 °C	-32 °F to 185 °F
Operating Humidity	Max. 90% relative humidity @ 50 °C (122 °F)	
Applicable Pipe Types		
Pipe Materials	PVDF-SYGEF, PP-PROGEF, PE-ELGEF, PB-INSTAFLEX, ABS, PVC-U/PVC-C, Mild Steel, Ductile Iron, Stainless Steel 316	
Pipe Dimension (OD)	25 - 115 mm	1 - 4.5 inch
Electrical		
Supply Voltage	12 to 24 V AC or DC	
Power Consumption	Max. 7 VA	
Outputs		
Analog Output	Range	4 to 20 mA
	Resolution	0.1 % of full scale
	Load max.	620 Ω
	Isolation	1500 V Opto-isolated
	Alarm Current	3.5 mA
Pulse Output	Type	Digital MOSFET relay, voltage free NO contact
	Pulse Repetition	1 - 166 pps user programmable, Frequency mode max. 200 Hz
	Pulse width	25 ms default value, 3 - 99 ms user programmable
	Voltage max.	48 V AC
	Current max.	500 mA
	Isolation	2500 V opto isolated
Enclosure and Display		
Material	Polycarbonate	
Dimensions	250 x 48 x 90 mm	9.85 x 1.9 x 3.55 inch
Weight	0.5 kg	1.1 lb
Keypad	4 key tactile feedback membrane keypad	
Display	Type	2 line x 16 characters
	Viewing Angle	Min. 30°, Max. 40°
	Active Area	83 x 18.6 mm
IP Rating	IP 54	
Shipping Information		
Box Dimensions	290 x 280 x 100 mm	11.4 x 11 x 4 inch
Weight	1.4 kg	0.05 lb
Volumetric Weight	1.4 kg	0.05 lb
Standards and Approvals		
	CE, RoHS compliant	
Safety	BS EN 61010-1:2001	
EMC	BS EN 61326-1:2006	BS EN 61326-2-3:2006
Environmental	BS EN 60068-1:1995	
	BS EN 60068-2-1:2007	BS EN 60068-2-2:2007

Dimensions



Ordering Information



Mfr. Part No.	Code	Description
U1000-1	159 300 085	U1000, for plastic and steel pipe d25 - d115 mm