



FIXED-UFM

Fixed installation, wall mounted clamp-on ultrasonic flowmeter.



The FIXED-UFM is a fixed installation, wall mounted clamp-on ultrasonic flowmeter. Its intuitive menu driven user interface and the layout of its display and keypad makes it incredibly easy to use. It incorporates heat quantity measurement functionality. It can accept up to 6 optional plug-in IO modules.

Specification

- Available in 3 competitively priced pipe outer diameter ranges:
 - 10 to 115 mm.
 - 115 to 225 mm.
 - 225 to 6500 mm.
- Temperature range for control unit -10 to +65 degC.
- Weight 840 g.
- Dimensions 215 x 185 x 100 mm.
- IP65 enclosure.
- Full 240 x 160 pixel graphics display with backlight.
- Full 15 key tactile keypad with audio feedback.
- Available in both 85 to 264 Vac and 12 to 24 Vdc PSU configurations at 10 W.



Made in Britain

- Date and time stamped 16MB datalogger as standard. All measurement values can be logged. User selected interval from 1 to 255 s.
- RS232 and USB serial communications as standard.

Features

- Intuitive installation using menu driven user interface.
- Full set of instrument and measurement diagnostics.
- Signal oscilloscope for sensor positioning and diagnostics.
- Internal database of pipe, fluid and lining materials.
- Fluid database of sound speed, density, viscosity and SHC compensated for fluid temperature (if temperature is known from optional PT100 or 0/4 to 20 mA temperature transmitter input)
- Heat quantity measurement (if inlet and outlet temperatures are known from optional PT100 inputs, 0/4 to 20 mA temperature transmitters or direct user entry).
- Heat measurement designed to comply with EN1434-1 Section 8 and its Appendix A, Russian GSSSD and SHC algorithms.
- All measured values can be totalised.
- Connection to PC using both RS232 and built in USB.
- Serial communications can be used for device control (command line interface) and datalogger download via PC.
- Batching functionality.
- Manual totaliser functionality.
- Product identification functionality. Can be used for a range of processes including oil dewatering.

Performance

- Measurement principle ultrasonic transit time difference.

- Flow velocity range 0.01 to 25 m/s.
- Resolution 0.25 mm/s.
- Repeatability 0.15 % of measured value.
- Accuracy +/- 0.5 to +/- 3.0 % of measured value for velocity greater than 0.2 m/s, depending on application.
- Turn down ratio 1/100.
- Measurement rate 1 Hz as standard.
- Gas/solids < 10 % of volume.

Quantity and units of measurement

- Flow velocity
- Volumetric flow rate
- Mass flow rate
- Energy flow rate
- Volume
- Mass
- Energy

Optional plug-in IO modules

- Galvanic and optical isolation.
- Namur levels for signalling.
- 16-bit resolution.

Currently available modules include:

- Active 4 to 20 mA current output.
- Passive 4 to 20 mA current output.
- Active 4 to 20 mA current input.
- Passive 0/4 to 20 mA current input.
- Open Collector pulser (user selected duration 3 to 999 ms).
- Opto Relay pulser.
- Relay (NO and NC) output.
- PT100 input (4 wire).
- Modbus RTU.

Transducers



- A range of sensor frequencies and sizes to cover the range of pipe outer diameter 10 to 6500 mm.
- DS, for pipes of 50 mm and over, dimensions 60 x 30 x 35 mm.
- DM (40 x 20 x 25 mm) and DN (30 x 15 x 12 mm), for pipes from 10 to 750 mm.
- Material stainless steel and PEEK.
- Temperature range, -10 to +80 degC standard, -20 to +130 degC extended.
- Ingress Protection rated IP54, with IP68 option.
- Cable length 3 m as standard.
- Matched pairs for accurate zero flow measurement.

Typical applications

- Process water metering and flow measurement.
- Water and wastewater flow measurement.
- Hot water metering and flow measurement.
- Flow measurement for heat metering.
- Flow measurement for Energy Metering.
- Chilled water metering and flow measurement.
- Potable water metering and flow measurement.

For more information or to arrange a demonstration please contact Sonic Driver by email enquiries@sonic-driver.com, telephone +44(0)7971 273000 or by post at the address shown at the bottom of this page.

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