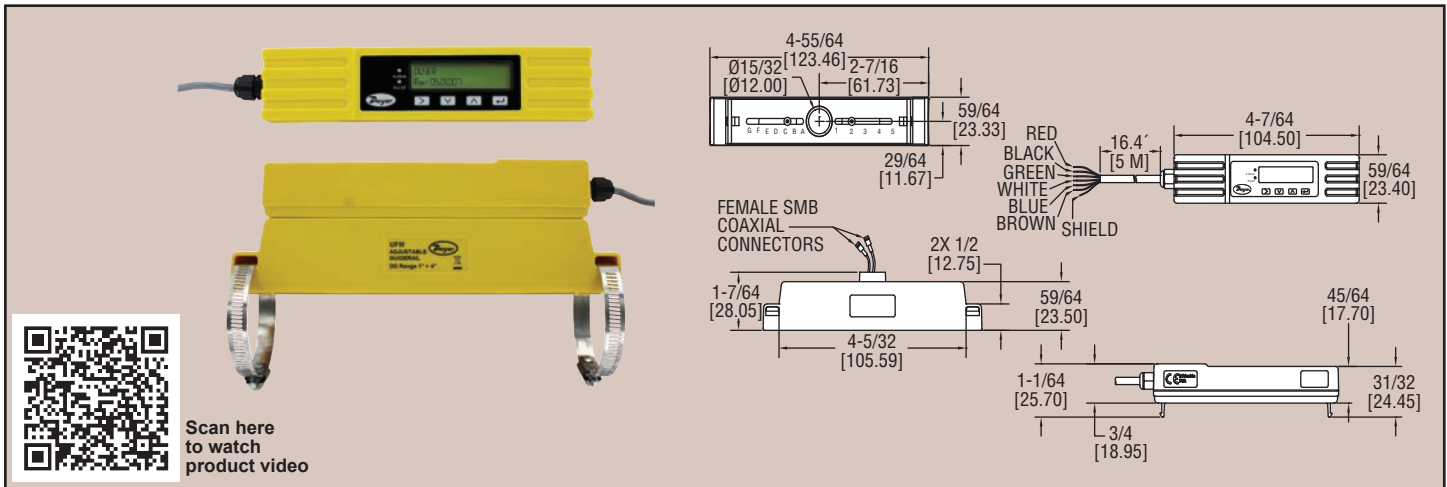




Model
UFM

Compact Ultrasonic Flowmeter

Cost Effective, Compact & Adjustable Design, Non-Invasive



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Model UFM Compact Ultrasonic Flowmeter is a low cost clamp-on, ultrasonic flowmeter. The Model UFM implements the transit-time difference to measure flow rates in pipes non-invasively. It is a compact and lightweight design, featuring an easily installed, all in one clamp-on unit. This unit can measure velocity and flow in pipes with outside diameters ranging from 0.98 to 4.62" (24.89 to 117.35 mm). The screen offers easy to read text with a convenient backlight for visual comfort. This model comes with a volume pulse and 4 to 20 mA flow rate output.

PRINCIPLES OF OPERATION

Two sensors located in the guiderail are placed on the exterior of the pipe, and each transmits an ultrasonic pulse through the pipe and fluid to the other. The velocity of the liquid flowing through the pipes causes the pulse to accelerate or decelerate. The difference in the transit times of the two pulses is used to calculate the flow rate. The use of transit time allows the flowmeter to be unaffected by pressure or temperature changes.

APPLICATIONS

- Flow measurement for heat metering
- Chilled water metering and monitoring
- Potable water metering and monitoring
- Process water metering and monitoring

Kit Includes:

- Converter w/ adjustable guiderail
- Set of 1.81 to 2.75" (46 to 70 mm) clamps
- Set of 2 to 5" (51 to 127 mm) clamps
- Set of small pipe adaptor circle clamps
- Set of small pipe adaptor V clamps
- Ultrasonic coupling grease

Model UFM-1, Compact Ultrasonic Flowmeter

OPTION

For NIST traceable calibration certificate, use order code NISTCAL-FU.

SPECIFICATIONS

Service: Clean water with <3% by volume of particulate content.

Range: 0.33 to 32.8 ft/s (0.1 to 10 m/s).

Display: Backlit: 3.27" H x 0.74" W (83.1 mm x 18.8 mm), 2 line x 16 characters.

Accuracy: ±3% of flow reading for > 0.98 ft/s (> 0.3 m/s).

Power Requirements: 12 to 24 VDC or VAC.

Power Consumption: 7 W max.

Temperature Limits:

Process: 32 to 185°F (0 to 85°C);

Ambient: 32 to 122°F (0 to 50°C).

Outputs:

Analog: 1 opto-isolated: 4 to 20 mA;

Error current: 3.5 mA;

Load resistance: 620 Ω max;

Pulse: 1 opto-isolated MOSFET relay, 500 mA max, 166 pps max, 200 Hz max.

Enclosure Rating: IP54.

Enclosure Material: Plastic polycarbonate.

Repeatability: ±0.5% of measured value.

Electrical Connections: 16.4' (5 m) cable.

Response Time: < 1 s.

Weight: 2.9 lb (1.315 kg).

Agency Approvals: CE.

ADDITIONAL SPECIFICATIONS

Applicable Pipe Material: Steel, copper, or plastic.

Pipe Outside Diameter: 0.98 to 4.62" (24.89 to 117.35 mm).

Applicable Pipe Lining: None.

Pipe Wall Thickness: 0.02 to 0.39" (0.5 to 10 mm).

FLOW

Flow Transmitters,
Ultrasonic