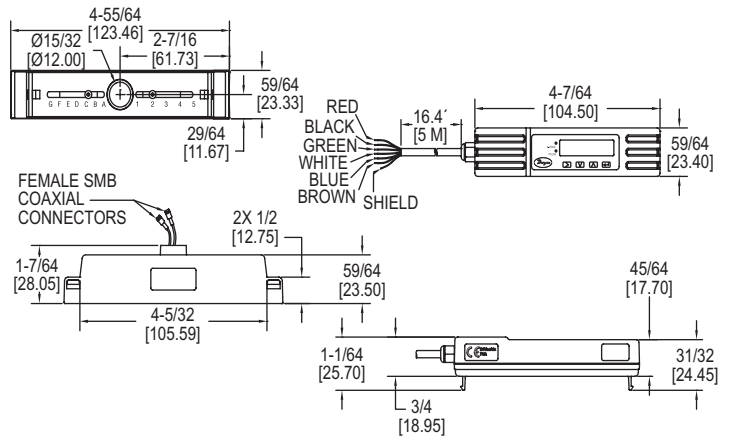


# COMPACT ULTRASONIC FLOWMETERS

Cost Effective, Compact and Adjustable Design, Non-Invasive



The Model UFM Compact Ultrasonic Flowmeters are economical, clamp-on, ultrasonic flowmeter. The Model UFM implements the transit-time difference to measure flow rates in pipes and can measure velocity and flow in pipes with outside diameters ranging from 0.98 to 4.62" (24.89 to 117.35 mm). This model comes with a volume pulse and 4-20 mA flow rate output.

### FEATURES/BENEFITS

- Non-invasive pipe measurement
- Simple installation with all necessary components included such as converter, sensor, cables and mounting accessories
- Compact and lightweight design, featuring an easily installed, all in one clamp-on unit intended for homogeneous liquids that contain no air
- Screen offers easy to read text displaying both flow rate and total with a convenient backlight for visual comfort

### APPLICATIONS

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

### KIT INCLUDES

- Converter with 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 CHART

Model	Description
UFM-1	Compact ultrasonic flowmeter

### SPECIFICATIONS

<p><b>Service:</b> Clean water with &lt; 3% by volume of particulate content.</p> <p><b>Range:</b> 0.33 to 32.8 ft/s (0.1 to 10 m/s).</p> <p><b>Display:</b> Backlit: 3.27" H x 0.74" W (83.1 mm x 18.8 mm), 2 line x 16 characters.</p> <p><b>Accuracy:</b> ±3% of flow reading for &gt; 0.98 ft/s (&gt; 0.3 m/s).</p> <p><b>Power Requirements:</b> 12-24 VDC or VAC.</p> <p><b>Power Consumption:</b> 7 W max.</p> <p><b>Temperature Limits:</b> Process: 32 to 185°F (0 to 85°C); Ambient: 32 to 122°F (0 to 50°C).</p> <p><b>Outputs:</b> 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.</p>	<p><b>Enclosure Rating:</b> IP54.</p> <p><b>Enclosure Material:</b> Plastic polycarbonate.</p> <p><b>Repeatability:</b> ±0.5% of measured value.</p> <p><b>Electrical Connections:</b> 16.4' (5 m) cable.</p> <p><b>Response Time:</b> &lt; 1 s.</p> <p><b>Weight:</b> 2.9 lb (1.315 kg).</p> <p><b>Agency Approvals:</b> CE.</p> <p><b>ADDITIONAL SPECIFICATIONS</b></p> <p><b>Applicable Pipe Material:</b> Steel, copper, or plastic.</p> <p><b>Pipe Outside Diameter:</b> 0.98 to 4.62" (24.89 to 117.35 mm).</p> <p><b>Applicable Pipe Lining:</b> None.</p> <p><b>Pipe Wall Thickness:</b> 0.02 to 0.39" (0.5 to 10 mm).</p>
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### OPTIONS

Use order code:	Description
NISTCAL-FU	NIST traceable calibration certificate

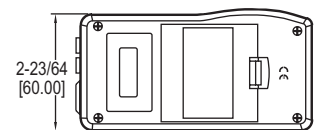
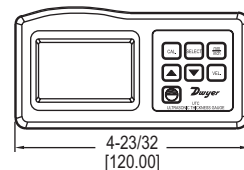
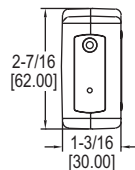
USA: California Proposition 65

⚠WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

### MODEL UTG

# ULTRASONIC THICKNESS GAGE

Ideal For Use with Ultrasonic Flow Transmitters, Adjustable Sound Velocity



The Model UTG Ultrasonic Thickness Gage measures the thickness of a variety of materials. The UTG works on a variety of parallel surface material ranging from 0.05 to 7.9" (1.2 to 200 mm).

### FEATURES/BENEFITS

- Non-invasive thickness measurement
- Reads in inches or millimeters and features an adjustable sound velocity to allow for an array of materials to be measured
- Allows the user to find the wall thickness of the pipe when programming an ultrasonic transmitter without cutting or removing a section of the pipe to measure it
- Ideal for monitoring corrosion in closed vessels such as boilers and chemical tanks and with any ultrasonic flow transmitter

### APPLICATIONS

- Pipe thickness measurement
- Finding wall thickness
- Monitoring corrosion in closed vessels
- Industrial applications
- Automotive
- HVAC
- Plumbing

### SPECIFICATIONS

<p><b>Service:</b> Steel, cast iron, aluminum, red copper, brass, zinc, quartz glass, polyethylene, PVC, gray cast iron, nodular cast iron, other. Selectable option for special materials with known sound propagation rate.*</p> <p><b>Range:</b> 0.047 to 7.874" (1.2 to 200 mm).</p> <p><b>Accuracy:</b> ±0.5%.</p> <p><b>Resolution:</b> 0.001" / 0.1 mm.</p>	<p><b>Sound Velocity:</b> 1118 to 20132 mph (500 to 9000 m/s).</p> <p><b>Temperature Limits:</b> 32 to 122°F (0 to 50°C).</p> <p><b>Humidity Limit:</b> &lt; 80%.</p> <p><b>Display:</b> 4 digits, 0.394" (10 mm) LCD.</p> <p><b>Power Requirement:</b> (4) 1.5 V AAA alkaline batteries, not included, user replaceable.</p> <p><b>Weight:</b> 5.78 oz (164 g).</p>
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\*Material must be uniform with minimal coating/paint.

### MODEL CHART

Model	Description
UTG	Ultrasonic thickness gage

USA: California Proposition 65

⚠WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov