

ULTRASONIC FLOWMETER SETS

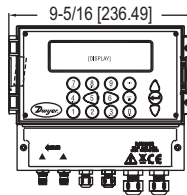
Non-Invasive Pipe Flow Measurement, Easy Operation and Data Logging Option



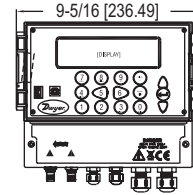
UFB



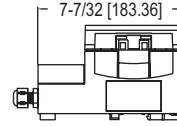
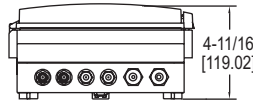
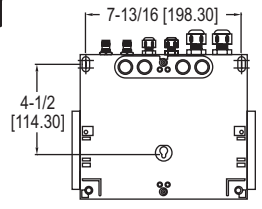
UFC



UFB



UFC



The Series UFB & UFC Ultrasonic Flowmeter Sets utilize the transit-time difference for measuring flow rates in pipes. These units are permanent mount, where the converters can be mounted on a surface or pipe with a 4 to 20 mA and pulse output capabilities for pipe sizes from 1/2 to 79" (13 to 2000 mm). The Series UFC offers the same features plus data logging capability.

FEATURES/BENEFITS

- Non-invasive pipe measurement
- Easy-to-use compact and lightweight design, intended for homogeneous liquids that contain no air
- Simple installation with all necessary components included such as converter, sensor, cables and mounting accessories
- Sturdy IP65 rating, protecting it from dust and direct water contact

APPLICATIONS

- Water treatment
- Industrial systems
- Irrigation applications
- Treated water flow
- River water
- Sea water
- Potable water
- Demineralized water
- Glycol/water mix
- Hydraulic system
- Diesel oil
- Water use data logging

KIT INCLUDES

- Converter
- Set of transducers
- Ruled guide rail
- Steel banding
- Banding clips
- Set of transducer cables
- Set of high temperature interface cables
- Ultrasonic coupling grease

MODEL CHART - STANDARD VERSION

Model	Pipe Size Range in (mm)	Power Supply
UFB-122	0.5 to 4.5 (13 to 115)	86 to 264 VAC
UFB-123	2 to 79 (50 to 2000)	86 to 264 VAC
UFB-222	0.5 to 4.5 (13 to 115)	24 VAC/VDC
UFB-223	2 to 79 (50 to 2000)	24 VAC/VDC

MODEL CHART - DATA LOGGING VERSION

Model	Pipe Size Range in (mm)	Power Supply
UFC-122	0.5 to 4.5 (13 to 115)	86 to 264 VAC
UFC-123	2 to 79 (50 to 2000)	86 to 264 VAC
UFC-222	0.5 to 4.5 (13 to 115)	24 VDC/VAC
UFC-223	2 to 79 (50 to 2000)	24 VDC/VAC

SPECIFICATIONS

Service: Homogeneous liquids that do not contain more than 3% of air bubbles or particulate and capable of ultrasonic wave propagation.
Inputs: TNC cable from sensors.
Range: 0.33 to 33 ft/s (0.1 to 10 m/s).
Display: 240 x 64 pixel graphic display, high contrast black on white with backlight; Languages: English, French, German, Swedish, Italian, Spanish, Portuguese, Russian, Norwegian, and Dutch; 5" W x 1.3" H (5 x 33.02 mm).
Accuracy: ±0.5 to ±2% of flow reading of flow rate > 0.03 ft/s (0.01 m/s) and pipe OD > 3.0 in (75 mm); ±3% of flow reading for flow rate > 0.03 ft/s (0.01 m/s) and pipe OD 0.5 to 3 in (13 to 75 mm); ±6% of flow reading for flow rate < 0.03 ft/s (0.01 m/s).
Power Requirements: 86 to 264 VAC (50 to 60 Hz) or 24 VAC/VDC (1 A max).
Power Consumption: 10.5 W.
Temperature Limits: Transducer: -4 to 275°F (-20 to 135°C); Controller: -4 to 122°F (-20 to 50°C).
Outputs: Analog 1 opto-isolated output: 4 to 20 mA, 0 to 16 mA or 0 to 20 mA (selectable); Error current: 0 to 26 mA (selectable); Load resistance: 620 Ω max; Alarm: 2 opto-isolated MOSFET NO relays, 48 V at 500 mA, maximum 200 Hz; Pulsed: 1 opto-isolated MOSFET relay, 48 V at 500 mA, 1 to 250 pps; Pulse width: 2 to 500 ms (selectable).
Serial Communications: USB (UFC only).
Enclosure Rating: IP65 when using TNC connector; Transducers IP54.
Materials: Plastic ABS and aluminum.
Repeatability: ±0.5 % of measured value or 0.03 ft/s (0.01 m/s).
Electrical Connections: Removable screw-in type terminal block.
Mounting: Wall mounted using 3 type M4 screws.
Turbidity: < 3 % by volume of particulate content.
Permissible Air Content: < 3% by volume.
Response Time: < 500 ms.
Weight: Unit not including accessories: 2.80 lb (1.26 kg); Unit including accessories: 9.92 lb (4.5 kg).
Agency Approvals: CE.

ADDITIONAL SPECIFICATIONS

Applicable Pipe Material: Carbon steel, SS, copper, UPVC/PVDF, concrete, mild steel, glass, brass.
Applicable Pipe Lining: Rubber, glass, concrete, epoxy, steel, other*.
Pipe Wall Thickness: 0.04 to 3" (1 to 75 mm).
Pipe Lining Thickness: < 1" (< 25 mm).
 *Selectable option for special material with known propagation rate of lining material.

OPTIONS

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