

ULTRASONIC FLOWMETER

Hand Held Doppler



The Series UFX Doppler Flowmeter features advanced *Trans-Phase* measuring technology, providing accurate and reliable flow velocity assessments in closed piping systems. The UFX utilizes a non-invasive, hand-held transducer which is placed on the outside of a pipe. Within seconds, the large 0.7 inch [18 mm] LCD provides stable readings in feet per second or meters per second. This product operates on metal or plastic pipes containing liquids with greater than 100 ppm of suspended solids or entrained gases.

Features

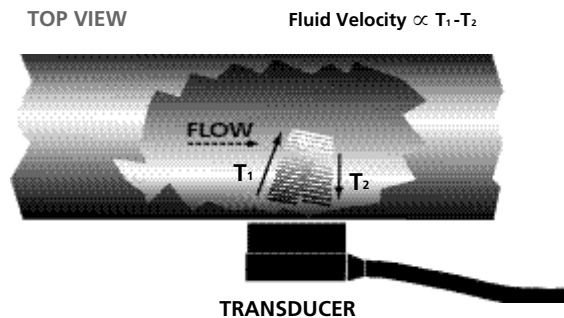
- Battery operated
- Non-invasive, hand-held transducer
- Microprocessor based signal conditioning electronics
- Large character flow velocity display
- User selected velocity units (FPS or MPS)
- Measures fluid velocities from 0.3 to 30.0 FPS [0.10 to 9.00 MPS]
- 100:1 turndown ratio
- Pipe sizes from 0.25 inches [6.3 mm]

Applications

- Pump Flow Verification
- Flow surveys
- Wastewater
- Crude oil
- Mining
- Paper mills
- Dredging
- Sludge

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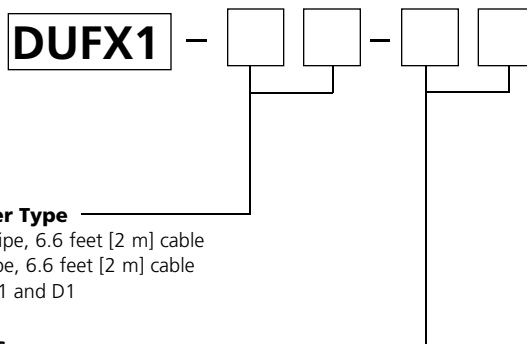
Principles of Operation



The Series UFX flowmeter utilizes an advanced *Trans-Phase* measuring technique, providing accurate, non-invasive, fluid velocity assessment without opening the pipe. The UFX utilizes two piezoelectric crystals contained within one transducer to transmit ultrasonic energy into the fluid stream and receive reflected energy off discontinuities (suspended particles or entrained gases) within the moving liquid. Transformations that result from the energy reflections are processed and converted to fluid velocity by the UFX's sophisticated software algorithm. The processor also controls all operations of the instrument from its ultra efficient battery management circuitry to a proprietary FIR (Finite Impulse Response) filtration program.

Part Number Construction

ELECTRONICS AND TRANSDUCER



Transducer Type

B1) Small Pipe, 6.6 feet [2 m] cable
D1) Std. Pipe, 6.6 feet [2 m] cable
F1) Both B1 and D1

Approvals

(CE) CE Generic Light Industrial
 * Leave blank if no approvals are required

Note: Includes carrying case, 1 tube silicone couplant, and batteries

SPARE PARTS AND ACCESSORIES

Description	Part Number
SS Mounting Strap 36 inch [900mm]	D002-2007-001
Nylon Mounting Strap 30 inch [750mm]	D002-2007-002
Couplant, RTV (for permanent mounting)	D002-2011-002
Couplant, Silicone (for temporary mounting)	D002-2011-001
SS Identification Tag	D003-0825-001
Series DUFX Std. Pipe Transducer	DTUFX-D1
Series DUFX Small Pipe Transducer	DTUFX-B1
Series DUFX Operations Manual	DUFX O&M
UFX Carrying Case	D003-1009-005

Hand Held Doppler

Specification

ELECTRONICS

DESCRIPTION	SPECIFICATIONS
SUPPLY VOLTAGE	Battery powered; non-rechargeable alkaline, four AA cells; providing over 30 hours of continuous operation
FLOW RANGE	0.30 to 30.00 FPS [0.10 to 9.00 MPS]
DISPLAY	Single line – four digit LCD readout of velocity (0.7 inches [18mm] high digits), signal strength, measuring units, and low battery indication
TEMPERATURE	-28°F to 140°F [-20°C to 60°C]
ENCLOSURE RATING/DIMENSIONS	NEMA 12X ABS plastic; 7.76 inches H x 4 inches W x 1.5 inches D [200 mm x 100 mm x 38 mm] 1.5 lbs. [0.7 kg]
ACCURACY	±2% full scale
AGENCY APPROVAL	CE mark

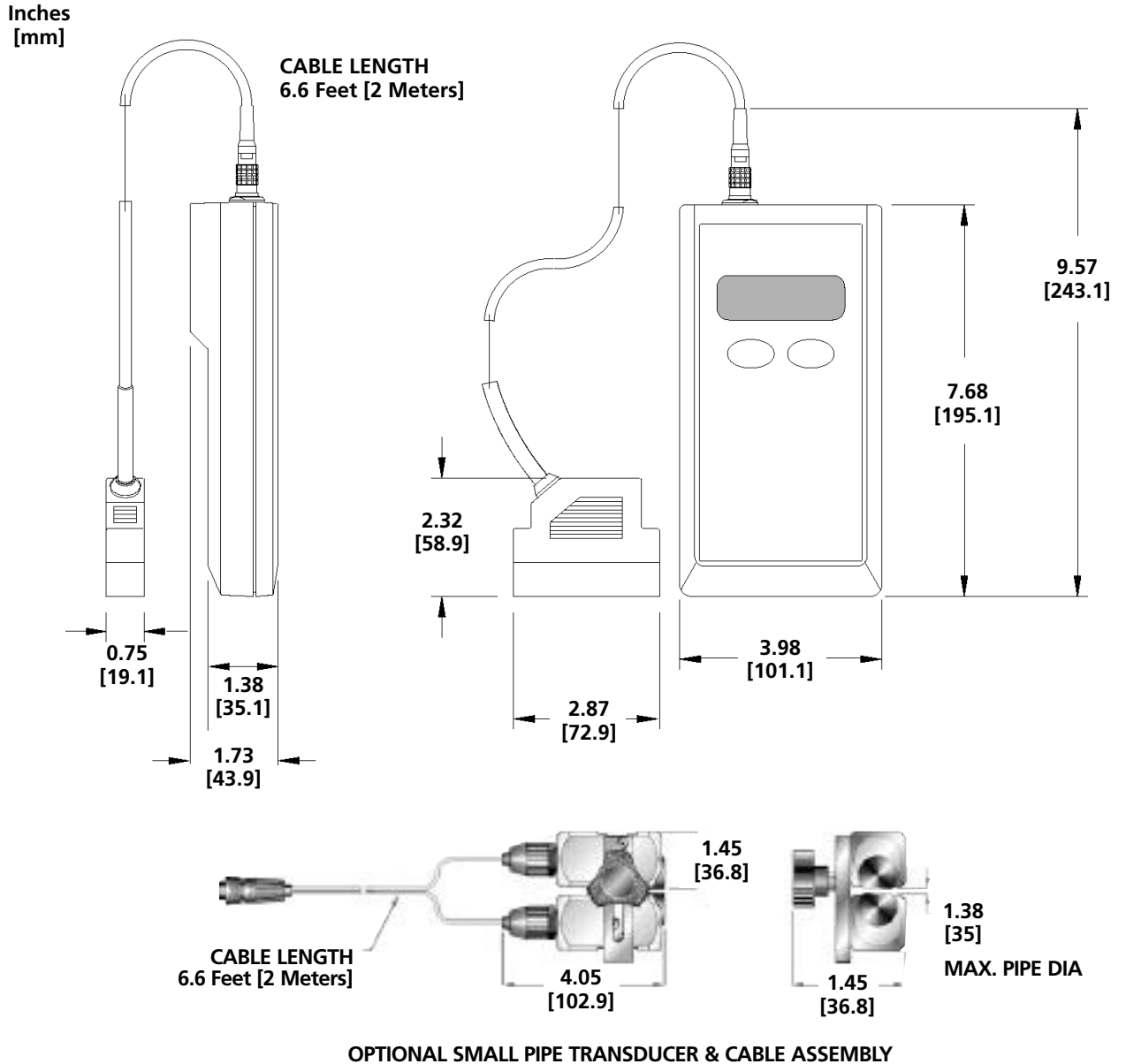
TRANSDUCER

DESCRIPTION	SPECIFICATION
LIQUID REQUIREMENTS	100 PPM of 100 micron size suspended solids or entrained gases
CABLE	6.6 feet [2 m] cable and connector
PIPE SIZES	(STD) 1 inch [25mm] and larger pipe ID (OPT) 0.25-1 inch [6-25mm], small pipe transducer
TEMPERATURE	-40°F to 180°F [-40°C to 82°C]
HUMIDITY	0 to 95% non-condensing
TRANSDUCER MATERIAL	Plated body; ULTEM 1000 sensor material
MOUNTING METHOD	Clamp-on style with Dow 111 coupling compound

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Dimensional Specifications



2200 South Street ■ Racine, WI 53404 ■ U.S.A.

Tel: 262.639.6770

800.535.3569 U.S.

Fax: 262.639.2267

800.732.8354 U.S.

www.dynasonics.com