

ULTRASONIC FLOW METER

Hand Held Doppler

The Series UFX Doppler Flow Meter features an advanced ultrasonic 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 the 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 100 micron size suspended solids or entrained gases.

The Series UFX flow meter is a cost-effective flow measurement system for closed full pipe sizes 1/4" [6mm] and higher. The easy to use hand held transducer provides accurate flow readings on applications such as dredging systems, crude oil, sludges, and waste slurries.

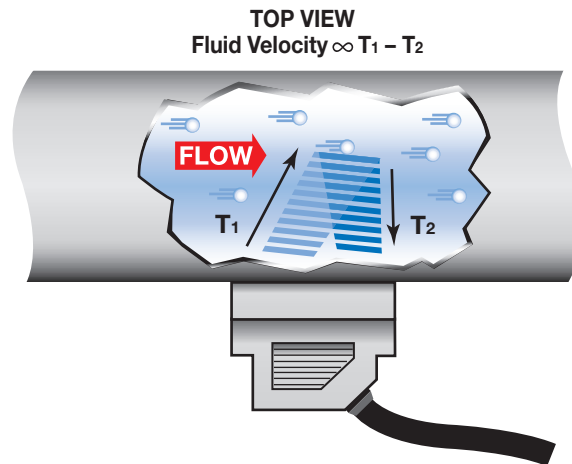


FEATURES

- Utilizes a non-invasive, hand held transducer and NEMA 12X, battery operated enclosure.
- Large four-digit LCD display provides velocity readout in user selected units (FPS or MPS).
- Measures fluid velocities from 0.3 to 30.0 FPS [0.10 to 9.00 MPS] with a 100:1 turndown ratio.
- Easy to use flow verification instrument for industrial and municipal applications, including paper pulp stock, concrete slurries, dredging applications, primary sludge and waste activated sludge.
- Reliable readings on nearly all liquid applications containing a minimum of 100 ppm of 100 micron size suspended solids or entrained gases.
- Low cost unit with accurate readings on closed full pipe sizes 1/4" [6 mm] and higher.
- Optional CE Approved transducer for pipe sizes 1" and higher.

OPERATING PRINCIPLE

The Series UFX flow meter utilizes an advanced ultrasonic 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

DUFX1 - -

Transducer Type

B1) Small Pipe, 1/4" - [6.25 mm]

D1) Std. Pipe, 1" and higher

F1) Both B1 and D1

Approvals

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

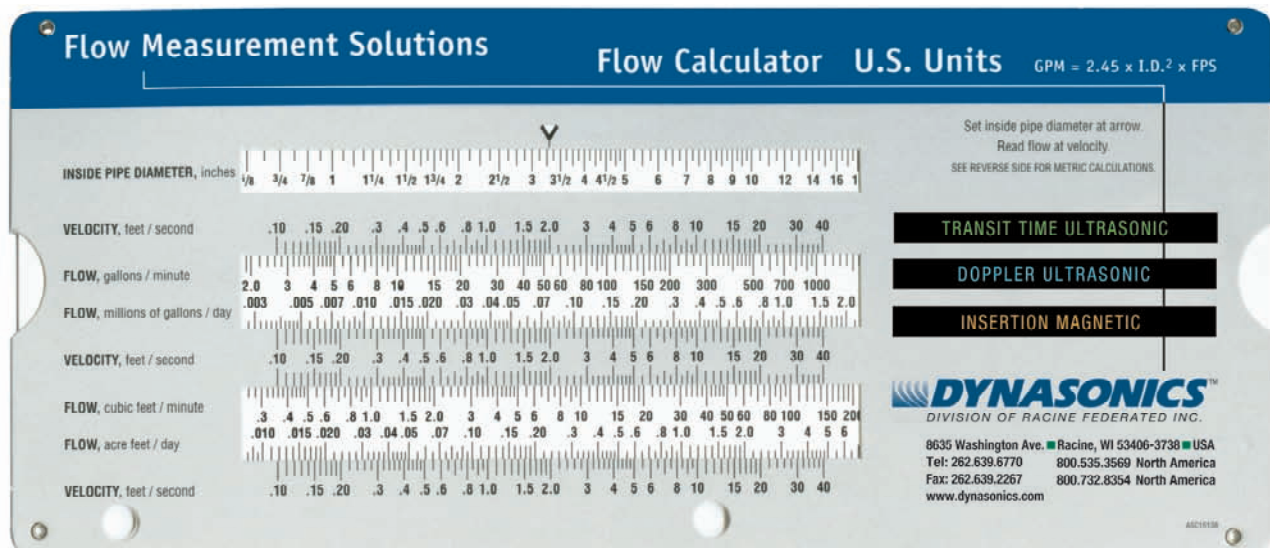
*CE available with Std. Pipe transducer only.

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

SPARE PARTS AND ACCESSORIES

Description	Part Number
Nylon Mounting Strap 30 inch [750mm]	D002-2007-002
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

Velocity to Volumetric Flow Calculator included



TECHNOLOGY SELECTION GUIDE

Liquid Type (in order of increasing % of suspended solids)

Ultrapure Liquids
 Deionized Water
 Water Filter-Bed Effluent

 Hydraulic Oil

 Refined Hydrocarbons
 Beverages
 Well Water
 Reclaimed Water

 Cooling Tower
 Ground Water

 Raw Sewage
 Gray Water

 Beverages - Carbonated

 Waste Activated Sludge
 Return Activated Sludge

 Mining Slurries

 Filter Backwash

 Paper Pulp Stock

 Dredging Applications

 Preprocessed Crude Oil

 Primary Sludge
 Lime Sludge
 Digested Sludge

 Concrete



Transit Time



Enhanced Doppler



Doppler

This guide provides general rules for the selection of an appropriate Dynasonics ultrasonic technology – it is neither exhaustive nor absolute. System factors such as temperature, pipe materials, suspended solid composition and liquid velocity can influence product selection. It is best to present application information to a Dynasonics Sales Representative or to the Dynasonics factory for evaluation.

Dynasonics offers the most comprehensive line of ultrasonic transit time and Doppler flow meters in the world. These meters are clamp-on, non-invasive flow meters that require a good acoustical path between the outside of the pipe and the liquid inside. In some instances, such as non-saturated concrete pressure pipe, ultrasonic energy will not readily pass. For these installations, Dynasonics offers the Series MFX MagProbe™.

Please consult a Dynasonics Sales Representative or the Dynasonics factory to discuss the use of these products in your flow measurement application.

