

# Handheld Ultrasonic Flow Meter Delta1133UFM



## High Performance Specification

The Delta1133UFM Portable Ultrasonic Flowmeter Converters is paired with sensors in order to utilize the transit-time difference for measuring flow rates in pipes from the outside in a portable unit. Unit is provided in a case and offers a 4 to 20 mA output and RS-485 serial communication.

Delta1133UFM is a portable type ultrasonic flow meter that allows easy measurement of flow rates in pipes by installing a set of sensors on the outside of the piping. A combination of the latest electronics and digital signal processing technologies enables the instrument to provide a compact and convenient solution to accurately measure system flow rates without breaking or opening the serial transmission and removable memory card functionality allows easy data acquisition and analysis.

## 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

- Portable Ultrasonic Flow meter with Printer and Coaxial Cable
- SD memory card slot for recording data
- Built in USB port allows for easy connection to a computer
- Designed for high accuracy and high-speed response
- Large type color graphic LCD with flow rate, flow velocity, and flow totalization functions
- Thermal flow rate (BTU) function with two temperature inputs, Perfect for energy audits
- Non-invasive pipe measurement
- Compact and lightweight instrument incorporating the latest electronics and digital signal Processing technologies, realizing high performance and easy operation
- Rechargeable NIMH battery + AC Adaptor

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## Technical Specifications

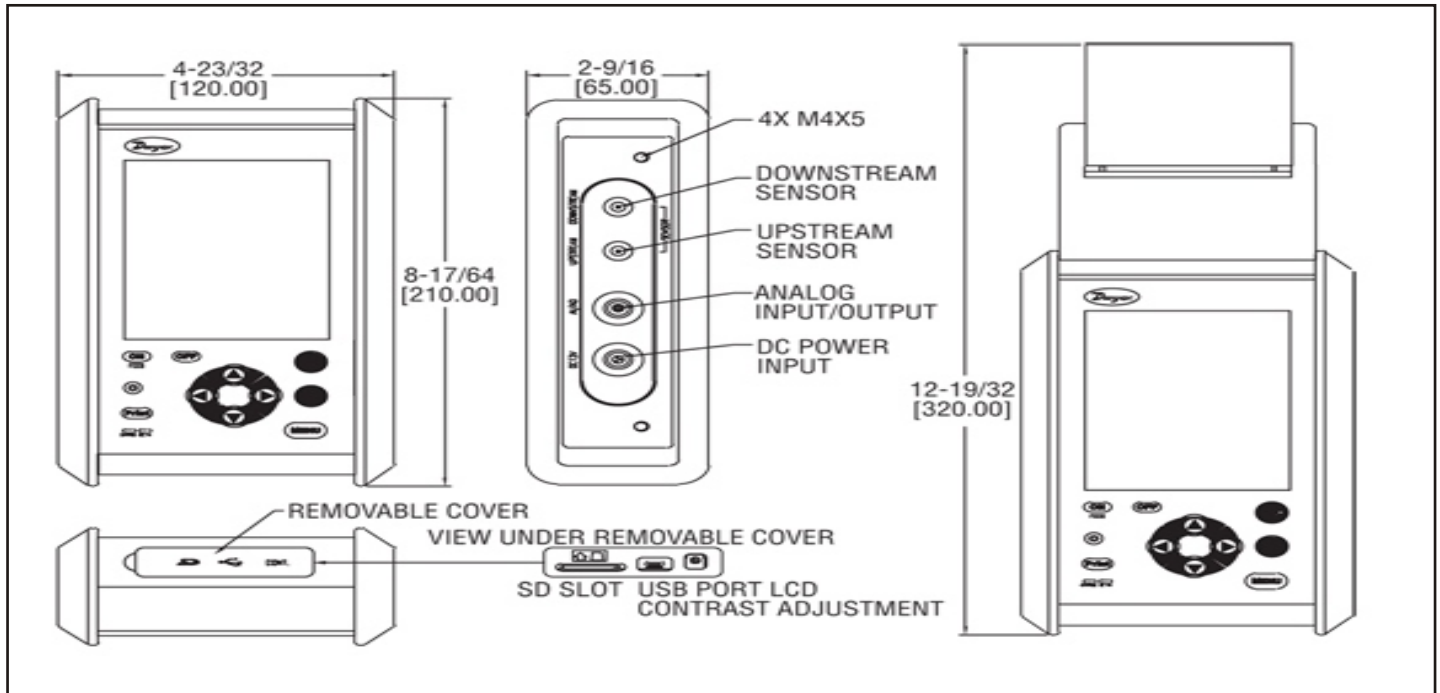
Function	Range / Values
Service	Homogenous liquids (water, sea water, oil, and fluid of unknown velocity) capable of ultrasonic wave propagation
Inputs	BNC connector, coaxial cable from flow sensor. Two 4-20 mA DC, or one 4-20 mA DC and one 1 to 5 V DC
Range	1 to $\pm 105$ fps (0.3 to $\pm 32$ m/s)
Display	LCD 240 x 320 dot (with backlight)
Accuracy	$\pm 1.0$ % of rate
Power Requirements	3 V BR2330 lithium metal battery, internal, factory replaceable and rechargeable lithium ion battery (continuous operations time: 12 hours without printer and back light off; recharging time: 3 hours, power adapter used) installed functional, user replaceable. Rating : 5000 mAh
Power Consumption	3 W
Power Adapter	Special type power adapter 90 to 264 VAC, 50/60 Hz.
Power Failure Backup	Memory backup with lithium battery (effective term, 10 years).
Temperature Limits	Ambient 131°F (55°C) without printer; 113°F (45°C) with printer.
Output	4 to 20 mA DC, 1 point (load resistance, 0 to 600 $\Omega$ ).
Serial Communications	RS-485, 1 point.
Enclosure Rating	NEMA 3X (IP54) (without printer).
Material	Plastic case
Weight	2.2 lb (1 kg) without printer; 2.65 lb (1.2 kg) with printer.

SENSOR TYPE	Model	Line Size	Process Temp	Sensor Frequency	Sensor Mounting Method
Small Diameter Type	SDT	15mm to 100mm.	-40 to 100°C	2 Mhz	V or Z
Extended Small Diameter Type	ESDT	15mm to 300mm	-40 to 100°C	2 Mhz	V or Z
Medium Diameter	MDT	50 mm to 1200mm	-40 to 120°C	1 Mhz	V or Z
High Diameter Type	HDT	200mm to 6000 mm	-40 to 80°C	0.5 Mhz	V or Z
High Temp. Diameter Type	HTDT	50mm to 400mm	-40 to 200°C	2 Mhz	V or Z

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## PORTABLE ULTRASONIC FLOWMETER CONVERTER DIAGRAM



### Ordering Information

Code	Description
Delta1133UFM	Handheld Ultrasonic Flow Meter with Calibration certificate, Analog input/Output cord, AC Adaptor, Carrying Case, Strap
SDT*	Small Diameter Type (15mm to 100mm)
ESDT*	Extended Small Diameter Type (15mm to 300mm)
MDT*	Medium Diameter Type (50 mm to 1200mm)
HDT*	High Diameter Type (200mm to 6000 mm)
HTDT*	High Temp. Diameter Type (50mm to 400mm)

Note : The sensors will be provided 5mtrs. Integral cable, Silicone Grease, Mounting Belt according to sensor.

### Ordering Information - Optional Accessories

Code	Description
EXT-Cable	10 mtrs. Extension cable
*Note	Other Accessories on Request