

SERIES DF12 Handheld

Series DF12 Handheld Transit Time Ultrasonic Flow Meter is carefully designed so that it is very compact and easy to use. A user can use hand to hold as well as to operate the flow meter main unit. The user-interface is self-explanatory and very easy to follow. Besides, the unique clamp-on fixture design makes the installation very simple and no special skills or tools required. Due to the non-intrusive nature of the clamp-on technique, there is no pressure drop, no moving parts, no leaks and no contamination.

Features:

- ◆ carefully designed so that is very compact and ease to use.
- ◆ Advanced MultiPulse™ Technology
- ◆ convenient for mobile measurement, flow rate calibration, data comparing, meters running status checking
- ◆ Wide
- ◆ liquid applications
- ◆ Provides Data Logger functions. The capacity is based on how much the users selected, and maximum can reach to 8GB. 1



Applications:

Water, including hot water, chilled water, city water, sea water, etc.

- ◆ Sewage and drainage water with small
- ◆ particle quantity. Oil, including crude oil, lubricating oil, diesel oil, fuel oil, etc
- ◆ Chemicals, including alcohol, acids, etc.◆ Solvents◆ Beverage and food processors
- ◆ HVAC hot and cool water, water /glycol solutions.◆ Water and waste treatment
- ◆◆ Power plants (nuclear power plants, thermal & hydropower plants), heat energy boiler feed water. Energy consumption supervision and water conservation management
- ◆ Metallurgy and miming applications (e.g., acid recovery)◆ Marine operation and maintenance
- ◆◆ Pulp and paper industries Pipeline leak detection, inspection, tracking and collection
- ◆ Energy measurement and balancing◆ Network monitoring

Selection Table of DF12 Handheld Ultrasonic Flow Meter

DF12	- X		X	-	X	/ * (Transducers)
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Handheld Series

Output Selection 1

N—N/A

1—OCT Pulse (Flow Rate or Totalizer Output)

2—RS232

3—Data Logger & Software

Output Selection 2

Same as Output Selection 1

Power Supply (charger connector type)

A—115VAC(Two Round Terminals)

B—230 VAC(Two Round Terminals)

C—100VAC(Two Rectangular Terminals)

D—230 VAC(Two Rectangular Terminals)

Model	DH	- X	X		X
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Transducer Type

S—Small(12-50mm)

M—Middle(40-1000mm)

L—Large(1000-4570mm)

Transducers Temperature

N—-40~121°C

H—-40~250°C (Exclusive S, L transducer type)

Cable Length

S1 -- 4m Flexible cable S2 -- 5m non-Flexible cable

L1 -- 8m Flexible cable L2 -- 10m non-Flexible cable

Parts Number Construction example:

DF12-1N-A/DH-MNS1

Description: DF12 Handheld ultrasonic flow meter, OCT pulse output, Non-multiple output selections, with 115VAC charger connector type; welded directly for the pipe of transducers, standard M type transducer, standard temperature,4 meters Flexible cable.

Specifications

Transmitter	Power Supply	3 AAA Ni-H built-in batteries. When fully recharged it will last over 12 hours of operation. 100V-240VAC for the charger
	Velocity	0 ~ ±40 ft/s (0 ~ ±12m/s), bi-directional
	Display	4 line×16 English letters LCD back lit, can display total flow, flow rate, velocity and meter running status etc.
	Units Rate Totalized	User Configured (English and Metric); Rate and Velocity Display; (FWD, NET, REV or BATCH) gallons, ft ³ , barrels, lbs, liters, m ³ ,kg
	Output	4~20mA, Pulse, Relay, RS232C or RS485, options: up to 8 GB Data logger
	Accuracy	±1.0%-2.0% of reading at rates >0.5 m/s
		±0.005 m/s of reading at rates <0.5 m/s
	Sensitivity	Flow Rate: 0.001ft/s (0.0003m/s)
	Repeatability	0.2% of reading
	Security	Keypad lockout, access code enable
	Dimensions and Weight	100*204*34 Weight: <0.6kg
Transducer	Liquid Types Supported	Virtually most any liquid containing less than 2% total suspended solids (TSS) or aeration
	Suited Liquid Temperature	Std. Temp. Transducer: -40°C ~121°C High Temp. Transducer : -40°C ~250°C
	Dimensions and Weight	S: Size: 42*25*25; weight: <0.3kg M: Size: 60*43*43; weight: <0.6kg L: Size: 80*53*53; weight: <1.0kg
	Pipe Size	Std M transducer: 40-1000mm L transducer: 1000-4570mm S transducer: 12-50mm K-mode round: 12-50mm
Accessories	Portable Case	Size: 445*290*130; Weight: <3.5kg
	Couplant	Dow Corning 111 or 732 (112 for high temp.)
	Elastic Belts	2 bundles
	Battery Charger	1 pcs
	Data Logger & Software	Optional 512M(200,000 points) to 8GB SD card Windows-based Software Utility, data logging, data report, data curve and analyze.

Data Logger and Software Utility

Provides data logging, based SD card data memory structure, the memory capacity can be 512M, 1GB, 2 GB, 4 GB, 8 GB based SD card capacity. Normally, 1 GB can store 5 years data with 5 minutes logging interval.

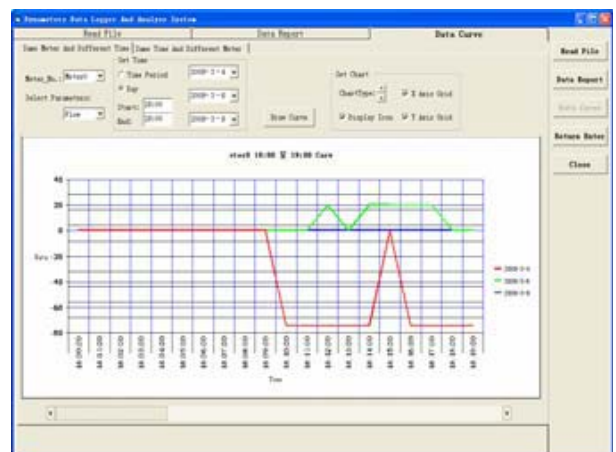
Very easy to read data from SD card just plug out from Dynameters Data Logger, and run Dynameters Data Logging and Analyze software, browse the SD card file.

Data report and Data Curve functions:



Software screenshot showing the 'Data Report' tab. It displays a table with columns: Meter, Time, Flow, Vel, WET, WED, and WED. The table contains 22 rows of data for meter 200P-3-8.

Meter	Time	Flow	Vel	WET	WED	WED
200P-3-8	01:11:00	-1.129265/s	-1.030036/s	head	head	head
200P-3-8	01:11:05	-1.110276/s	-1.020007/s	head	head	head
200P-3-8	01:11:10	-1.148876/s	-1.031717/s	head	head	head
200P-3-8	01:11:15	-1.158226/s	-1.039186/s	head	head	head
200P-3-8	01:11:20	-1.125126/s	-1.029427/s	head	head	head
200P-3-8	01:11:25	1.172865/s	1.121566/s	head	head	head
200P-3-8	01:11:30	9.179265/s	2.181486/s	head	head	head
200P-3-8	01:11:35	11.513265/s	2.548776/s	head	head	head
200P-3-8	01:11:40	11.475865/s	2.514776/s	head	head	head
200P-3-8	01:11:45	11.382765/s	2.493876/s	head	head	head
200P-3-8	01:11:50	11.494865/s	2.482776/s	head	head	head
200P-3-8	01:11:55	11.402865/s	2.461276/s	head	head	head
200P-3-8	01:12:00	11.507865/s	2.428776/s	head	head	head
200P-3-8	01:12:05	11.485865/s	2.418876/s	head	head	head
200P-3-8	01:12:10	11.465865/s	2.414776/s	head	head	head
200P-3-8	01:12:15	11.485865/s	2.418876/s	head	head	head
200P-3-8	01:12:20	11.465865/s	2.414776/s	head	head	head
200P-3-8	01:12:25	11.485865/s	2.418876/s	head	head	head
200P-3-8	01:12:30	11.465865/s	2.414776/s	head	head	head
200P-3-8	01:12:35	11.485865/s	2.418876/s	head	head	head
200P-3-8	01:12:40	11.465865/s	2.414776/s	head	head	head
200P-3-8	01:12:45	11.485865/s	2.418876/s	head	head	head
200P-3-8	01:12:50	11.465865/s	2.414776/s	head	head	head
200P-3-8	01:12:55	11.485865/s	2.418876/s	head	head	head



The Analyze Functions Include:

The curve based on the same Meter number but different time;

The curve based on the same time but different Meter number.

Logging Parameters: Flow Rate, Velocity

User can delete the uninterested parameters on the Excel Table and then print the data table.

We have two types of data logger, one for dedicated (including

DMTFB, DMTFC, DMTFD, DMTFF, DMHF) and Portable (DF13)

Series, the other for Handheld (DF12) Series.

Users can download the software from our website: www.dynameters.com