

Series DFTP1 Portable Flow and Heat Meter

DFTP1 Portable Transit Time Ultrasonic Flow and Heat Meter is a new product of DYNAMETERS released in



2013. It provides for precise and reliable ultrasonic clamp-on flow and heat measuring as other conventional portable transit-time products. Furthermore it has the advantages of wireless remote handheld operator function, panel USB data port and optional function of energy meters, can be used as a **powerful portable energy flow meter**.

The rechargeable battery can work over 50 hour, also can work with 110VAC/220VAC power supply for long time field monitoring.

Wireless handheld operator can be used to operate meters replacing the panel keyboard and read data remotely, the distance of transmission can up to 100m with no obstructions. It is more convenient for the applications of the overhead pipeline and underground pipeline.

The meter provides multiple outputs: Data storage function, 4~20mA, Frequency (For Flow rate or Total flow), Relay (For Total flow or Alarm), RS485 (Modbus-RTU) output, wireless handheld operator and GPRS.

Features

- ◆ 50-hour battery (rechargeable) life, can work while charging by AC power supply.
- ◆ Heat function (Pt1000 paired sensors) available.
- ◆ Built-in large capacity memory and USB data download function. The downloaded data can be opened and analyzed by EXCEL directly.
- ◆ Wireless Handheld operator support remote operation and real time data transmission.
- ◆ Non-invasive, cost effective and efficient to use.
- ◆ No moving parts, no pressure drop, no need of maintenance.
- ◆ User configurable flow rate, totalizer and heat flow.

Applications

- ◆ HVAC hot and cool water
- ◆ Food and beverage industry
- ◆ Power plants, heat energy boiler feed water
- ◆ Energy consumption supervision and water conservation management
- ◆ Energy measurement and balancing

Specifications

Transmitter	Power Supply	Internal 12AH Charging battery, Provides 42 hrs. Of continuous operation @ 20 °C. Charging power: 100-240VAC.
	Velocity	0.003 to 12 m/s, bi-directional
	Display	4 line×16 English letters LCD, it can display total flow, flow rate, velocity and meter running status etc.
	Units Rate Totalized Heat	User Configured (English and Metric) Rate and Velocity Display gallons, ft ³ , barrels, lbs, liters, m ³ ,kg kWh, GJ
	Output	Data storage function, 4~20mA, Frequency (For Flow rate or Total flow), Relay (For Total flow or Alarm), RS485(Modbus-RTU) options: Wireless handheld operator
	Accuracy	±1.0% of reading at rates >0.5 m/s)
		±0.005 m/s of reading at rates<0.5 m/s
	Sensitivity	0.003m/s
	Repeatability	0.2% of reading
	Security	Keypad lockout, access code enable
Dimensions		ABS 207×104×36mm
Transducer	Liquid Types Supported	Virtually most any liquid containing less than 5% total suspended solids (TSS) or aeration
	Suited Liquid Temperature	Std. Temp.: -40°C~121°C High Temp.: -40°C~250°C
	Cable Length	Std: 6m (20 feet); Opt: Maximum: 300m (990 feet)
	Pipe Size	Std M transducer: DN40-1000 L transducer: DN1000-4500 S transducer: DN20-50 K-mode round transducer: DN20-50 (For K, S transducer on the stainless steel pipe, It is better that the thickness of the pipe is more than 2.5mm. If not, please consult us, we have another solve plan.)
	Transducer Size	S: Size:42*25*25; weight:<0.2kg M: Size:60*43*43; weight:<0.5kg L: Size:80*53*53; weight:<1.0kg
Pair Temperature Sensor	temperature	0°C~180°C
	Accuracy	Pt1000, ≤ ±0.1°C

Parts Identification:

Transmitter:



Portable transmitter



Wireless Handheld Operator

Transducers:



K transducer



High temperature transducer



S-Transducer



M-Transducer



L-Transducer



Clamp-on Pt1000



Insertion Pt1000

Accessories:



M-Mounting Frame (V method and Z method)



S-Mounting Frame (V method and Z method)



Portable Case



Stainless Steel Strap



Flexible belts



Couplant

Model Selection

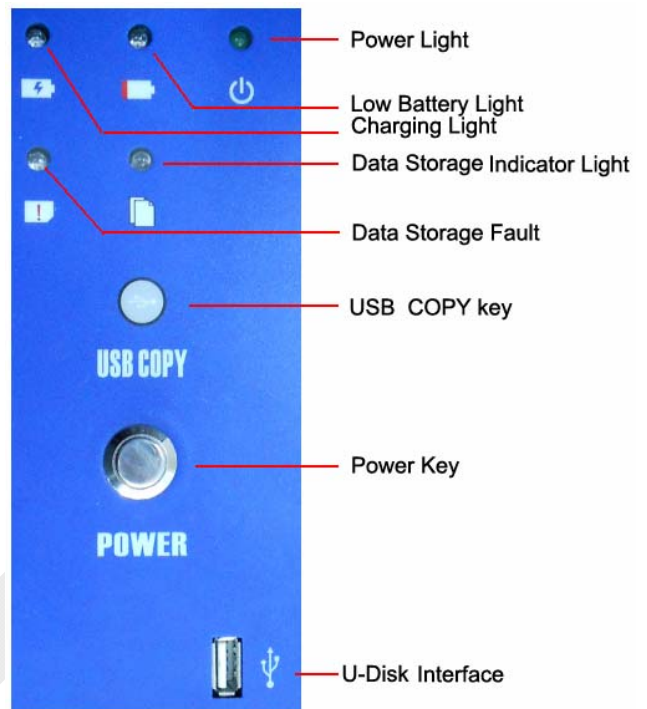
Model	DFTP1	-X	-X	-X	-X	-X	/ * (Transducers)
Portable Series							
Output Selection 1							
N—N/A							
0—Data storage function							
1—4-20mA							
2—Frequency Output (Flow rate or Totalizer)							
3—Relay Output (Totalizer or Alarm)							
4—RS485 Output (ModBus-RTU) (Output Selections 4 and 6 can be selected one.)							
5—Wireless handheld operator							
6—GPRS Wireless Module (Excluding software)							
Output Selection 2							
Same as Output Selection 1							
Output Selection 3							
Same as Output Selection 1							
Temperature Input Type							
C1—Pt1000 Clamp-on (0~180°C)							
C2—Pt1000 Insertion (0~180°C)							
Power Supply (Charger connector type)							
D—100-240VAC							

Model	DP	-X	-X	-X	-X	-X	-X
Transducer Type							
S— Small (DN20-50)							
M— Medium (DN40-1000)							
L— Large (DN1000-4500)							
Kxx— K Small-Pipe Round Clamp-on (DN20-50), xx is inside Diameter.							
Transducer Mounting Frame							
N— None							
FS— for DN20-50							
FM— for DN40-600							
Transducers Temperature							
N— - 40~121°C							
H— - 40~250°C							
Mounting Type							
N-Common							
M-Magnetic force (suitable for pipe above DN80)							
Pipeline Diameter							
DNX – DN20, DN4500							
Cable Length							
8m—8 meters straight cable (STD.)							
Xm—Common cable Max 300m							
XmH—High temp. cable Max 300m							

Wiring Connection



Transducers, Temperature sensor and Charging Wirings



1. Transducers, Temperature sensor and Charging wirings, shown as the above picture.

2. Data Storage Function

Plug a U-Disk into U-Disk interface, and then press USB_COPY key to download data.

3. Output wirings

The current output 4-20mA is connected to the terminal OUTPUT 4-20mA.
 The frequency (OCT) output is connected to the terminal OCT.
 The RS485(ModBus-RTU) output is connected to the terminal RS485.

4. Wireless Handheld Operator

Read data and operate the meter by wireless communication.

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