

# LONGRUN

ULTRASONIC  
FLOWMETER  
SAMPLE BOOK

TYPE: LRF-3000P  
Concentrating on Flow  
Measurement

LONGRUN  
Industrial Instrument  
Co., Ltd



## Introduction

LRF-3000P is a full function hand held transfer time ultrasonic flow meter. No matter you want to quickly verify the flow reading of another meter or to data log flow system values over an extended time period, the LONGRUN' s 3000P is the suitable tool. The 3000P portable meter has the clamp on transducers no tapping or cutting is required, just clamp outside of the pipe. The meter can be easily moved and installed in different pipe and convenient to carry site to site. Its portability makes it an excellent choice for measuring flows throughout the plumbing infrastructure to verify sensor, pump and valve performance.



## Features

### 1. Simple to install and use.

The magnetic guiding rail with scale on it makes installation quick and easy.

### 2. Wide range of measurable pipe size.

Just one set of transducers can be used to measure DN25~DN1200mm pipes. By adding small size transducers, it is capable of measuring DN15~DN1200mm pipes.

### 3. Optional energy meter function.

It can be used as a portable energy meter/cold (heat) meter by adding RTD module and PT1000 the clamp-on temperature sensors.

### 4. Built-in data logger function.

Each product is provided with a built-in data logger (32G TF card) and data analysis software. This makes LRF-3000P an ideal solution for monitoring flow/energy over time.

## Application

LRF-3000P ultrasonic flow meter is widely applied in oil industry, water treatment, pure water, chemical and etc.



## Specification

### Performance specifications

Flow range	±0.03 ft/s ~ ±40 ft/s (±0.01 m/s~ ±12 m/s)
Accuracy	±1% of measured value
Pipe size	1/2"~48"(DN15mm~DN1200mm)
Fluid	Single medium liquid
Pipe material	Carbon steel,stainless steel,PVC and other compact material pipe

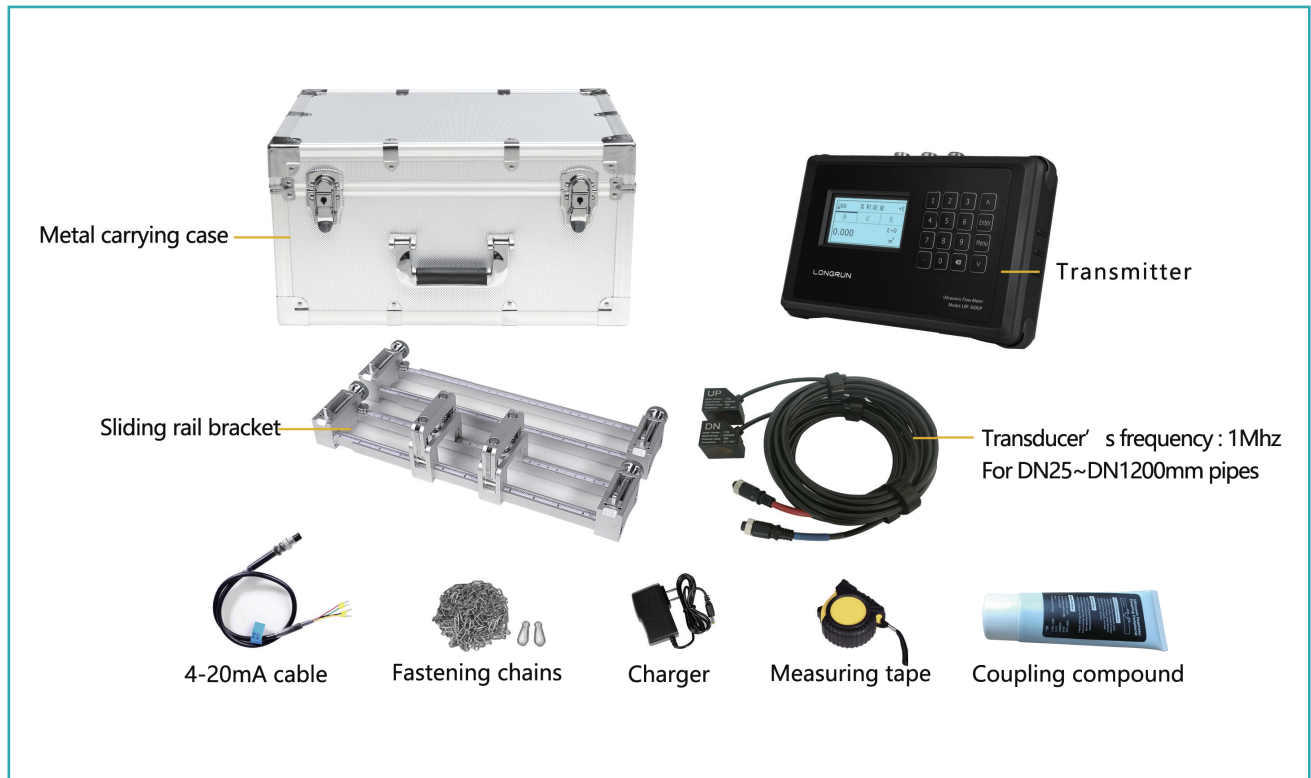
### Function specifications

Outputs	Analog output: 4~20mA, Max 750 Ω. Modbus: RS485
SD card	32G
Interval	1 ~ 99999seconds
Key broad	Digital keys
Display	240*128 back lit LCD
Power supply	Rechargeable Lithium Battery Power, 3000mAh (Continuous operation of main battery 16 hours).
Temperature	Transmitter: -20°C~60°C
Humidity	Up to 99% RH,non-condensing

### Physical specifications

Transmitter	NEMA13,IP54.
Transducer	Encapsulated design,IP68
Transducer cable	Standard cable length: 5m (16ft).

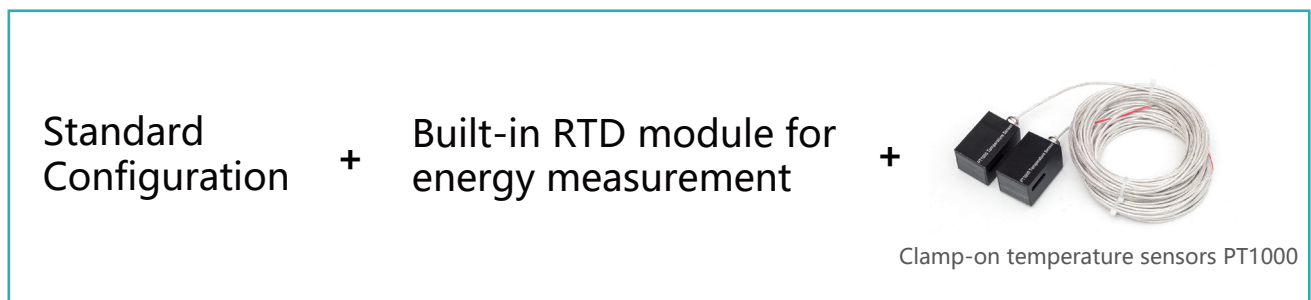
## Standard Configuration



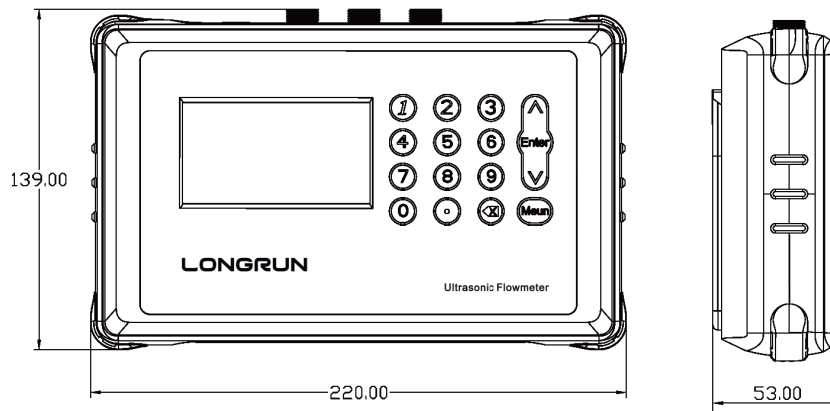
Note: Optional small size transducers can be added as shown in below picture



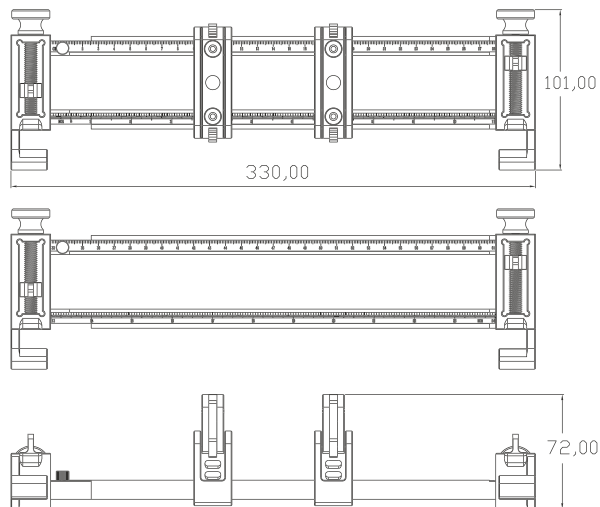
## Cold /Heat Meter Configuration



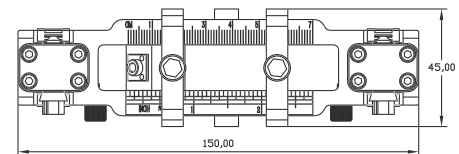
## Transmitter Dimension



## Dimension of Sliding Rail Bracket

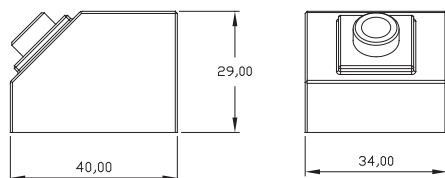


Dual-rail bracket dimension

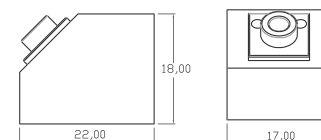


Small size bracket dimension

## Transducer Dimension



Dimension of TT02 & TT03



Dimension of TT02S & TT03S

## Ordering code

Model	Description
LRF-3000P	Installation method: Handheld Flow Range: ±0.03 ft/s ~ ±40 ft/s (±0.01 m/s~ ±12 m/s) Accuracy: ±1% of measured value Repeatability: 0.2% Output: 4-20mA, RS485 Internal lithium power supply: 3000mAh Pipe size range: 1/2" ~48"(DN15mm~DN1200mm) Transducer: IP68 with mounting kits.
Code	Type of Transmitter
1	Ultrasonic Flow Meter
2	Ultrasonic Energy/Btu Meter function( RTD)
Code	Type of transducers
TT02	Applicable pipe diameter: DN25~DN1200mm Operating temperature: -40°F ~ +176°F(-40°C ~ +80°C)
TT03	Applicable pipe diameter: DN25~DN1200mm Operating temperature: -40°F ~ +266°F(-40°C ~ +130°C)
TT02S	Applicable pipe diameter: DN15~DN40mm Operating temperature: 32°F ~ +149°F(0°C ~ +65°C)
TT03S	Applicable pipe diameter: DN15~DN40mm Operating temperature: 32°F ~ +239°F(0°C ~ +115°C)
TT02H	Applicable pipe diameter: DN25~DN1200mm Operating temperature: -20°F ~ +356°F(-20°C ~ +180°C)
Code	Transducers cable length
P5	Standard length of cable 5m (16ft)with mounting rail
PXX	XX is the cable length you need .Maximum length is 30m.
Code	Temperature sensor
PT1000	A pair of clamp on PT1000 sensors with 9m length cable.
Flow meter model (example): LRF-3000P-1-TT02-P5  Portable ultrasonic flow meter LRF-3000P, TT02 transducers, 5m length cable and mounting kits complete set.  Energy/ Btu meter model(example): LRF-3000P-2-TT02-P5-PT1000 Portable ultrasonic energy /BTU meter LRF-3000P, TT02 transducers 5m length cable, mounting kits, a pair of PT1000 clamp on temperature sensors 9m length cable complete set.	

# LONGRUN

Longrun Industrial Instrument Co.,Ltd

24hours service:+86-186-5435-6933

Tel:+86-543-3382666

Fax:+86-543-3615999

E-mail:[info@ultrasonicscn.com](mailto:info@ultrasonicscn.com)

Website:[www.longrun-flowmeter.com](http://www.longrun-flowmeter.com)