



FUM05B Ultrasonic Flow Meter

Flow-FUM05B

www.eyc-tech.com



| Features |

- Measurement accuracy 1%
- Converter IP rating IP 67, transducer IP rating IP 68
- Wide measurement range, pipe size from DN15 mm to DN6000 mm
- Connect the temperature transducer can finish the heat / energy measurement

| Introduction |

The FUM05B flowmeter can be virtually applied to a wide range of long-term online measurement. Converter IP rating IP67, transducer IP rating IP68. A variety of liquid applications can be accommodated: ultra-pure liquids, potable water, chemicals, raw sewage, reclaimed water, cooling water, river water, plant, effluent.etc

| Applications |

Oil and gas industries / Chemical / Pharmaceutical / Food and beverage / Metal / Mining / Pulp and paper / Wastewater industries

| Specification |

Converter

Principle	Transit-time Ultrasonic Flow Meter
Accuracy	±1%
Data interface	RS-485 , Modbus
Signal output	4 ... 20 mA, electrical resistance 0 ... 1 K, accuracy 0.1% OCT pulse output (pulse width ... 1000 ms, default is 200 ms) Relay output 4 ... 20 mA, accuracy 0.1%
Signal input	Connect the temperature transducer Pt100
Display	2x20 character LCD with backlight
Power supply	DC 8 ... 36 V or AC 85 ... 264 V
Power consumption	1.5 W

Measuring medium

Type of liquid	Single liquid can transmit sound wave such as Water, Oil, Alcohol, Beverage, Ultra-pure liquid, etc.
Temperature	-30 ... +160°C
Turbidity	≤10000 ppm (Less bubble)
Flow rate	0 ... ±10 m/s

Pipe installation condition

Pipe material	Steel, Stainless Steel, Cast Iron, Copper, Cement, Pipe, PVC, Aluminum, Glass steel product, liner is allowed
Pipe diameter	15 ... 6000 mm
Straight pipe	Transmitter installation should be satisfied : upstream 10 D, downstream 5D, 30D from the pump

Operating enviroment

Temperature	Converter : -20 ... +60°C Flow transducer : -30 ... +160°C
Humidity	Converter : 85%RH Flow transducer : Water depth ≤2 m

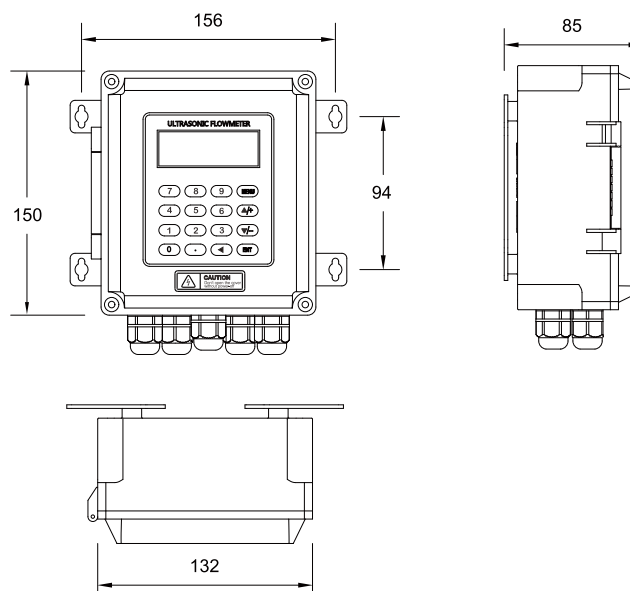
Material

Special cable	Twisted-pair cable, generally, the length under 50 meters ; Select the RS-485, transmission distance can over 1000 m
Dimension	132x150x85 mm (Converter)

*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

| Dimension |

Unit : mm



| Measuring Diagram-Clamp |

- Flow Measurement
- Heat Measurement
- Features



- No need to cut off water, no pressure loss
- Connect clamp-on temperature transducer, can finish the heat / energy measurement
- Easy for installation

| Multiple Installation Methods |

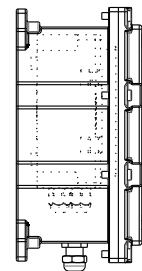
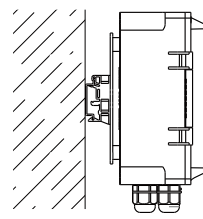
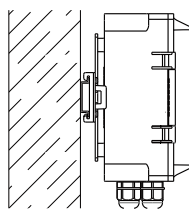
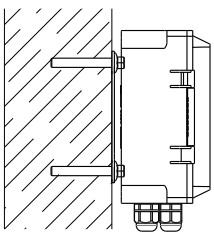
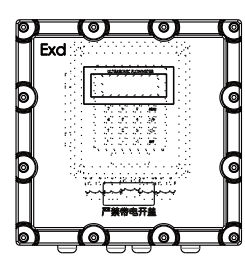
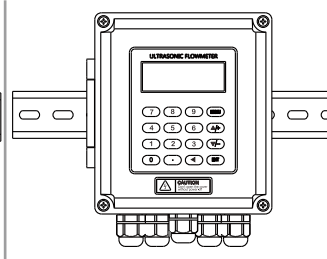
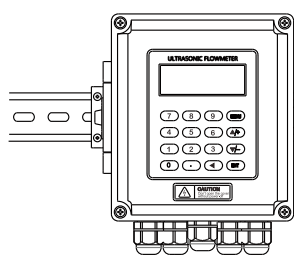
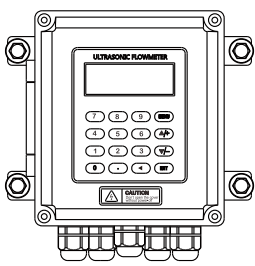
Host can choose multiple installation method, including select special accessories for wall mounting ; rail clips or A PCB mounting brackets for rail mounting. Host can be installed in an explosion-proof box.

Wall mounting diagram

DIN-rail mounting (rail clamp) schematic

DIN-rail mounting (PCB Mounting Bracket) schematic

Explosion-proof box installation diagram



| Ordering Guide |

FUM05B - **TM-1** - DN **250** mm - **10** m - **N** - **0**

- TS-2 : Small-clamp on
- TM-1 : Medium-clamp on
- TL-1 : Large-clamp on
- TS-2-HT : Small-high temp clamp on
- TM-1-HT : Medium-high temp clamp on
- TL-1-HT : Large-high temp clamp on

- Cable Diameter length* : N
- Temperature transducer : N
- SD card memory : 0 : Yes, 1 : No
- N : None
- PT.3M : Pt100 patch type surface thermometer

*Two clamp's cable total length. Example : Cable length selects 20 m, it is mean 10 m cable of each clamp.

| Optional Transducers |

Please choose the suitable transducer, according to different liquid pipe condition and installation method, (Please refer to the measuring diagram P3).

Types	Picture	Model	Measurement range	Temperature	Dimension
Clamp on		TS-2 (Small)	DN25 ... 100	-30 ... +90°C	45x25x32 mm
		TM-1 (Medium)	DN50 ... 700		64x39x44 mm
		TL-1 (Large)	DN300 ... 6000		97x54x53 mm
High temp clamp on		TS-2-HT (Small)	DN25 ... 100	-30 ... +160°C	45x25x32 mm
		TM-1-HT (Medium)	DN50 ... 700		64x39x44 mm
		TL-1-HT (Large)	DN300 ... 6000		97x54x53 mm

| Optional Temperature Transducer |

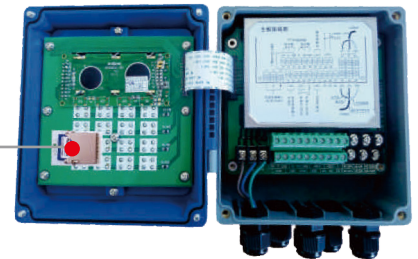
Connect the temperature transducer can finish the heat / energy measurement

Picture	Specification	Model	Measurement range	Temperature	Cut of water	Accuracy
	Pt100 Patch Type Surface Thermometer	PT.3M	< DN50	-40 ... +160°C	No	100°C ±0.8°C Exact match temperature difference ≤ 0.1°C

| Optional SD card memory |

Convenience for long-term and large data storage. Available to do the data processing like tabulation, statistical, data analysis, printing reports and production flow curve by using data analysis software.

SD card optional



| Additional Option Test Report |

For more detailed information please contact us.

■ ILAC / TAF

YUDEN-TECH CO.,LTD. Calibration Laboratory - (ILAC / TAF) Test report.

(TAF accreditation:3032, complying with ISO / IEC 17025) TAF has mutual recognition arrangement with ILAC MRA

Project	Measurand level or range
Flow transmitter	Water flow rate : 2.54 m ³ /h ...30 m ³ /h (42.3 L/min ... 500.0 L/min)
	Water flow velocity : 0.2 m/s ... 3 m/s

■ ISO 9001

Project	Measurand level or range
Flow	Water flow velocity : 0.0 m/s ... 5 m/s
	Water flow rate : ≤ 580 L/min