Gentos Measurement & Control Co.,Ltd.

pFlow

E5E Ultrasonic Energy Meter

Power and Communication Over Ethernet



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Product Overview



E5E Ultrasonic Energy Meter can realize the function of measurement of "cold" and "heat" independently in both directions, and is multi-purpose. It adopts advanced modular design, independent menu operation and LCD backlight display. It is suitable for continuous measurement of cooling and heating of chilled water and cooling water of central air conditioners to meet different measurement requirements.

The unique signal digital processing technology enhances the anti-interference ability, combined with high precision clamp on/insertion flow sensor and clamp on/insertion PT1000 temperature sensor, which makes the measurement signal more stable and the measurement more accurate.

The instrument adopts POE power supply and Ethernet communication to realize cloud data storage, and users can view measurement data in real time through mobile and PC, which makes data reading and field maintenance more convenient.

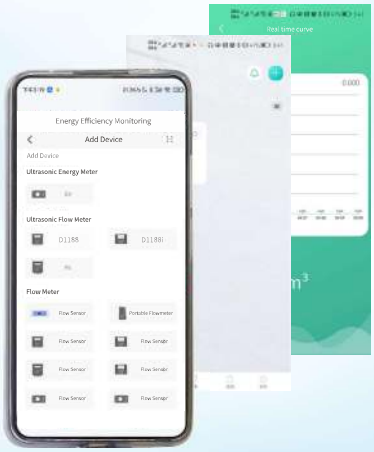
Cloud Service

The meter has the function of MeterTube - Intelligent air conditioning billing system. Users can browse and view it in WEB terminal and APP through the account and password provided by Gentos.

The monitoring data of each meter (group) can be directly and clearly checked, and the corresponding data charts can be observed according to the relevant data;

It supports time billing and monitoring alarm function, and also has system management page, which is convenient to set user management, cost unit price, product management, device management, alarm monitoring, etc.





MeterTube - Intelligent air conditioning billing system detects unreasonable energy use problems in buildings through energy consumption data such as water quantity and cooling quantity, optimizes existing equipment, and also realizes automatic data collection, cost settlement, data analysis and control so as to achieve the purpose of saving money and energy, saving energy and protecting the environment.

The system is mainly composed of meters, billing system and mobile application. The meter realizes the Ethernet function and can directly link to the cloud service to actively report the collected data to the database of the air conditioning billing system.

The cloud billing system realizes the inquiry, settlement and billing of tenants' air conditioning fees, and outputs various types of graphics, curves and reports about the air conditioning usage, which users can quickly inquire through their cell phones, greatly enhancing the efficiency of property management operations.

Product Features



Support independent metering of cold and heat energy consumption

The meter has a wide range of applications. No need to set the meter, after installation will be based on the site, direct single measurement of cold or heat (heating, air conditioning and refrigeration can be measured)



Energy efficiency monitoring

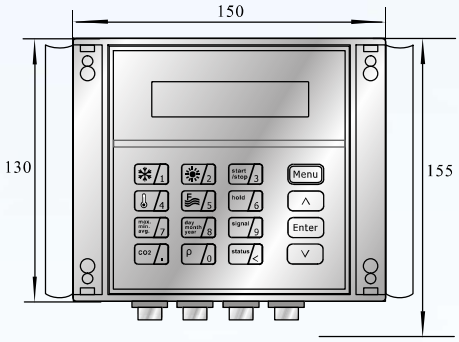
The meter has an energy efficiency monitoring system, which can monitor measurement data information in real time, observe data curves in real time, and generate data reports.

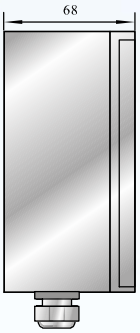


POE communication

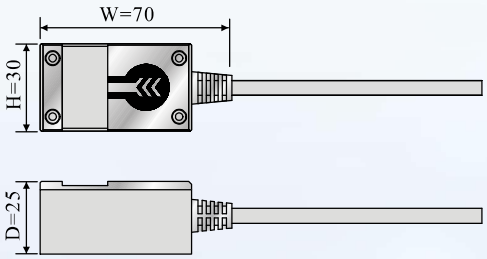
The meter adopts POE power supply and Ethernet communication to realize cloud data storage, and users can view measurement data in real time through Mobile and PC, which makes data reading and field maintenance more convenient.

Transmitter Dimensions (unit:mm)

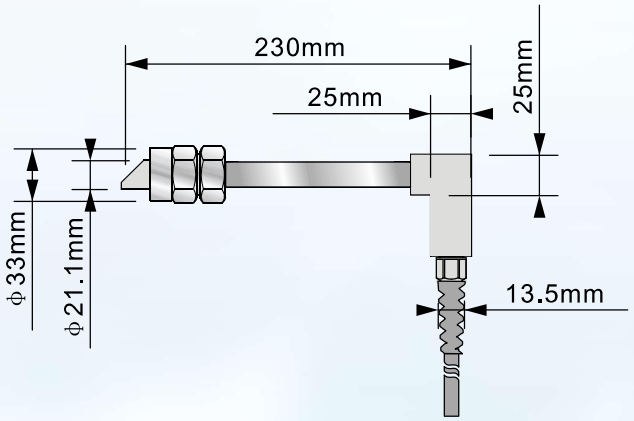


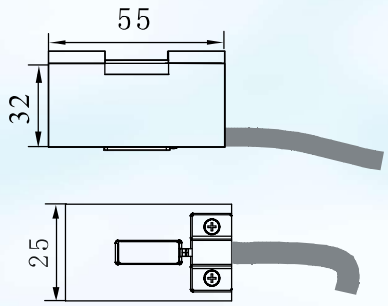


Transducer Dimensions (unit:mm)

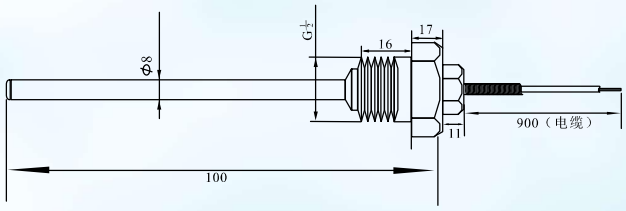


Transducer Size



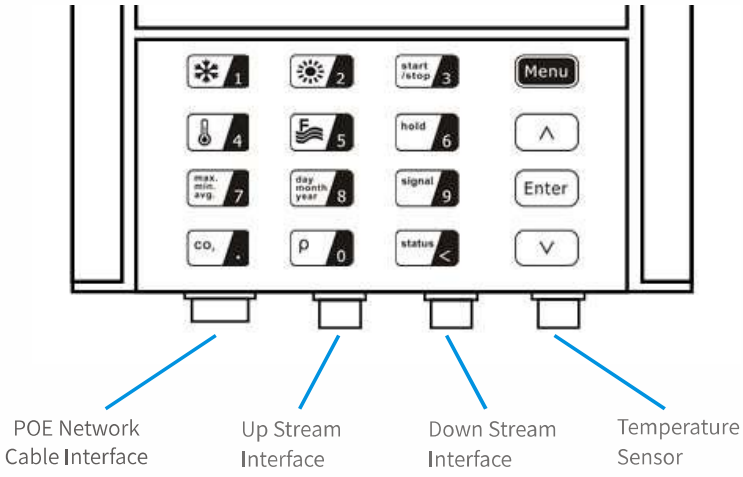


Clamp on Temperature Sensor



Insertion Temperature Sensor

Wiring Diagrams

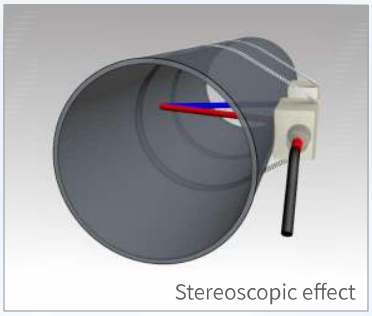


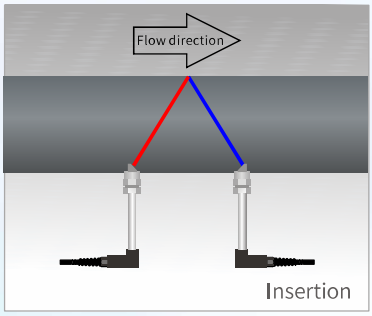
Transducer Installation Methods

V Method Measuring

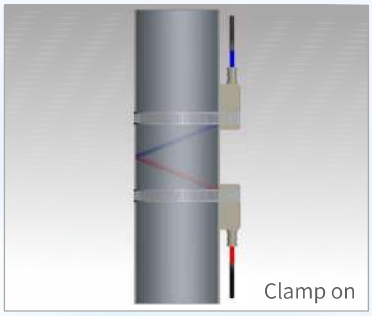
Clamp on Temperature Sensor Pipe Size: 25mm~400mm; Insertion Temperature Sensor Pipe Size: 50mm~600mm

(Note: The installation point should not be at the top or bottom of the same side of the pipe)


Stereoscopic effect



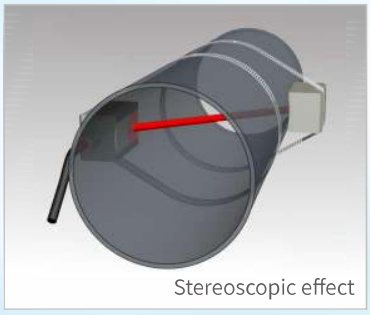
Insertion

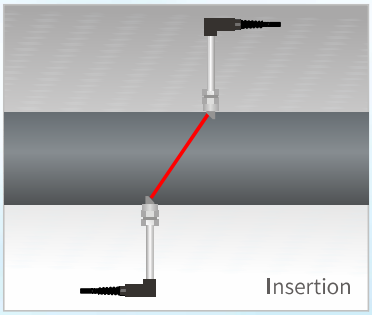

Clamp on

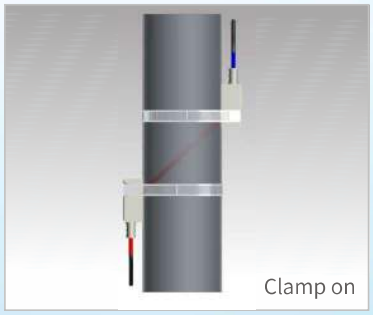
Z Method Measuring

Clamp on Temperature Sensor Pipe Size: 50mm~600mm; Insertion Temperature Sensor Pipe Size: 50mm-1200mm

(Note: The installation point shall not be at the top or bottom of the opposite side pipe)


Stereoscopic effect


Insertion

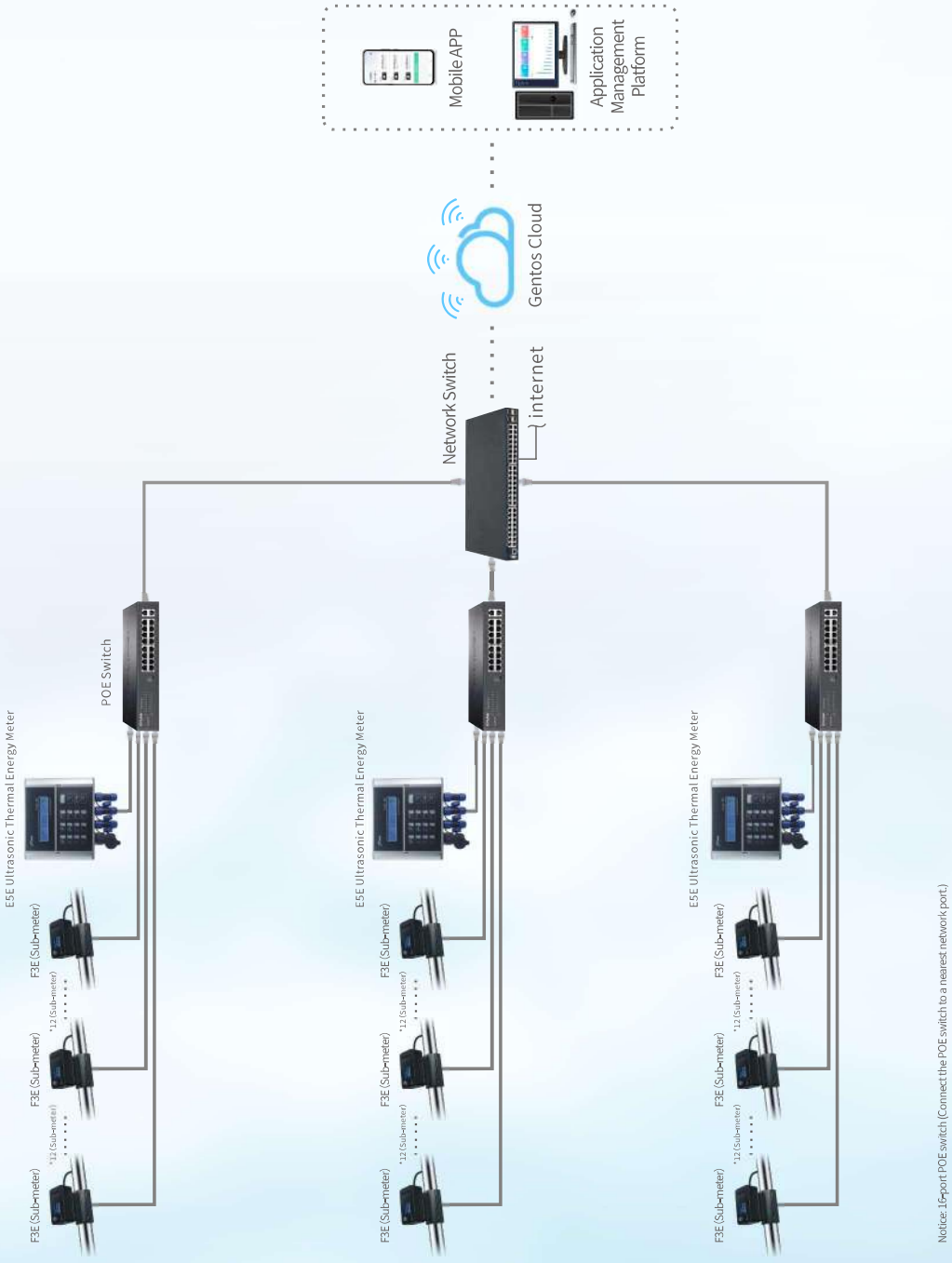

Clamp on

Working Principle

The E5E meter is connected to the POE switch through a network cable, and then the POE switch is connected to the Internet through a router. The meter flow data is uploaded to the cloud server via the Internet. The APP software can be used to access cloud data and operate through mobile terminals and PC terminals.

When E5E is connected to a RJ45(POE) Port of a POE switch which has access to InterNetvia a ethernet cable, the E5E will turn on.

Notice: Scan code to add the MeterTube APP, the new version of the APP will support the renewal prompt function.



Product Model

P/N Format : E5E -A-B-C-D-E-F

Model	Description of Transmitter	
E5E	Model Name: E5E ultrasonic energy meter	Protection Level: IP65
	Velocity range: 0.01~5m/s	Operation temperature:-10~50°C
	Energy accuracy level: level 2	Input: PT1000 interface
	Accuracy: ±1%	Sensor temperature range: 0~100°C
	Keyboard: 16(4x4) keys	Power supply: POE
	Display: 20x2, alphanumeric, backlit LCD	Transmitter enclosure: PC/ABS enclosure

Specifications

A	**Installation method**	
W	Clamp-on	
B	**Transmission case**	
1	Case: IP65, ABS/PC enclosure	
C	**Description**	
CP037E	Clamp on transducer Installation method: Clamp on Pipe size range: 25mm~1200mm Transducer cable length: 9m Transducer enclosure: CPVC, aluminium alloy Operating temperature: 0°C~80°C	
W211E	Insertion transducer Installation method: Insertion Pipe size range: 50mm~1200mm Transducer cable length: 9m Transducer: Cabron steel, PEI. Bottom: Carbon steel, Copper Operating temperature: -10°C~80°C	
D	**Cable length(Available when explosion-proof cabinet is selected for transmitter)**	
0 0 9	Cable length: 9m	
X X X	Maximum lengthen to 305m (1000ft)	
E	**Type of Temperature sensor**	
T1	PT 1000 Clamp on	
T2	PT 1000 Insertion	
F	**Gentos Cloud**	
1	No need	
2	Basic system (Including energy efficiency monitoring, COP, data report, monitoring alarm)	
3	Billing system (Including energy efficiency monitoring, COP, data report, monitoring alarm, Bill query)	

Selection example: Model: E5E, Specification: W-1-CP037E-009-T1-2
Describution: Model E5E series ultrasonic energy meter;
Specifications: Clamp-on, PC/ABS enclosure, CP037E Normal temperature external clamp sensor, 9m cable length, PT1000 clamp on Temperature sensor, Gentos Cloud

*POE switch is not included

Specification

Transmitter	
Items	Content/Index
Measurement Object	
Medium	Water
Turbidity range	< 10g/L
Flow state	Stable flow, Fill full pipe
Temperature	-10°C ~50°C
Flow range	0.01~5m/s
	Pipe Conditions
Pipe material	Carbon steel, stainless steel, PVC
Pipe-lining	/
Straight pipe section	Meet requirements of 10D in front of the measuring point,5D behind the measuring point (more details see the instructions manual)

Flow sensor	
Items	Content/Index
Sensor type	Clamp on
Model	CP037E
Pipe range	DN25~DN1200
Humidity:	0~99%, non-condensing
Temperature	0°C ~+80°C
Case material	CPVC
Protection Rate	IP68
Pressure Rate	/
Installation Method	support V, Z type
Size	W70 x H30 x D25mm (Not included cable length)
Sensor weight	0.8kg/ pair

Product Series

Accuracy Rate 0.2
D118 High Dynamic response
D348D Plus Multipath
...

Accuracy Rate 0.5
D118i Insertion
D118i Portable
D118 Insertion/Clamp on
...

Accuracy Rate 1.0
D116 Insertion/Clamp on
...

For HVAC
F5 wall mounted meter
F8 wall mounted meter
E8 wall mounted energy meter
E5E Clip-on energy meter
...

Clip-on Series
E3 Clip-on energy meter
F3 Clip-on flow meter
F3E Clip-on flow meter
...

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