



EUREKA

EUSONIC *ECO* ULTRASONIC FLOW METER

EUSONIC ECO H
HANDHELD



EUSONIC ECO WM
WALL MOUNTED



EUSONIC series ultrasonic flow meters have a state of the art design and are full of novel features.

The EUSONIC flowmeters work on the Transit-Time ultrasonic principle. This put simply, involves sending and receiving ultrasonic pulses from a pair of sensors and examining the time difference in the signal. This is a more direct method of determining flow than some other systems and thus provides a more reliable measurement.

Ultrasonic transducers are mounted on the external surface of the pipe and are used to generate ultrasonic pulses which are passed through the pipe wall. The flowing liquid within causes time differences, frequency variations and phase shifts in the ultrasonic signals which are then evaluated by the flowmeter to produce an accurate flow measurement.

The key principle is that sound waves travelling with the flow will move faster than those travelling against it. The difference in the transit time of these signals is directly proportional to the flow velocity of the liquid and thus the volumetric flow rate. Whilst elements such as flow profile, liquid type and pipe material could have an effect on the

measurement, the flowmeter electronics compensate for and adapt to changes in the medium in order to provide a reliable measurement.

The fast digital processors and sophisticated analysis used in the new EUSONIC flowmeters guarantee reliable, respectable results, even when used of a clamp-on flowmeter would not have been possible.

All measurements are independent of pressure and do not disturb the integrity of the pipeline in any way. This allows the flowmeters to be fitted to pipes where size, pressure, temperature, liquid type or pipe access would have made the installation of an invasive measurement device impossible.

- No shut-down, no lost production
- No pressure drop
- No costly and risky mechanical installation
- Low maintenance, no danger of blockage or damage
- Quick and simple installation
- Cost effective solution, particularly on large pipes

**EUREKA
INDUSTRIAL
EQUIPMENT
PVT. LTD.**

REGD. & SALES OFFICE : 17 - 20, 1ST Floor, Royal Chambers, Paud Road, Pune 411 038., Maharashtra India

Tel.: 0091 - 20 - 25443079, 25451314 Fax: 0091 - 20 - 25441323 Email: sales@eurekaflow.com

FACTORY

: 501, 'J' Block, M. I. D. C. Pimpri, Pune 411 018. Tel.: 0091 - 20 - 27460585, 30681731 to 50

Fax: 0091 - 20 - 27460586 Email: works@eurekaflow.com

MUMBAI OFFICE

: Office No. 116, Growmore Tower, 1st Floor, Plot No. 5, Sector No. 2, Kharghar, Navi Mumbai 410 210. Mobile: 9322598274

SERVICE OFFICE

: Eureka Hightech, 281/1, Plot No. 38, Kasar Amboli, Tal. Mulshi, Pune 412 108. Tel.: 020 - 22922170

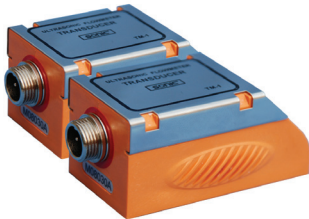
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EUREKA

TECHNICAL DATA

MODEL	EUSONIC <i>ECO H</i>	EUSONIC <i>ECO WM</i>
Enclosure	Handheld	Wall Mounted
Accuracy	+/- 1...3 % of measured value	+/- 1...3 % of measured value
Type of sensor	Only Clamp on	Clamp on & Insertion
Flow velocity range	0...10 m/s	0...7 m/s
Power Supply	Battery 3.6 VDC	8-36 VDC or 85-264 VAC
Process Output	None	4 ... 20 mA, Relay
Communication	RS 232	RS 485
Internal Datalogger	Yes	Yes
Display	4*16 Character Backlit LCD	2*20 Character Backlit LCD
Unit of flow	Selectable	Selectable



Hand Held Clamp on Sensors



Wall Mounted Clamp On Sensors



Wall Mounted Insertion Sensors

CLAMP ON SENSORS

Model - Sensor 1	Model - Sensor 2	Model - Sensor 3
Operating Temp : -30 to 90 Deg C	Operating Temp : -30 to 90 Deg C	Operating Temp : -30 to 90 Deg C
Pipe Diameter DN 15 to DN 100	Pipe Diameter DN 50 to DN 700	Pipe Diameter DN300 to DN6000

Insertion Type Sensor - Pipe Diameter DN 80 to DN 6000 /Op.Temp -30 to 160 Deg C

Note:-30 to 160 Deg C suitable clamp on sensors on request

BENEFITS OF EUSONIC

Experience of over 10 years in ultrasonic flow measurements.

In-house & on site training capabilities

Individual design solutions

APPLICATIONS OF EUSONIC

Chemical & Petro-Chemical : Measurement of aggressive/toxic media

Power Generation : Cooling flow measurement

Manufacturing : Machine cooling & lubrication systems, Fire system & deluge pump, Paint spray booth maintenance

Beverage Production : Verification of production & discharge rates

Aerospace : Fuel distribution pipelines

Food & Pharma : Hygienic measurements

Water & Wastewater : Measurements on large diameters pipes

Process : Condition monitoring of pumps, Identifying blockages