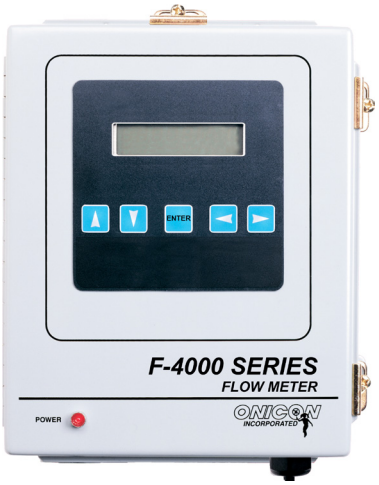


Made in the USA

• F-4200 SERIES •
CLAMP-ON ULTRASONIC FLOW METER

ONICON INCORPORATED

ONICON F-4000 Series Ultrasonic Flow Meters utilize the differential transit time method to measure the velocity of relatively clean liquids in full pipes. By measuring the difference between transit times of ultrasonic sound waves travelling between two transducers, the flow velocity and direction are accurately determined.

DESCRIPTION

ONICON F-4200 Clamp-on Ultrasonic Flow Meters offer an ideal solution for liquid measurement in existing systems when it is impractical to install traditional flanged or insertion type flow meters. Utilizing a matched pair of high precision clamp-on transducers, mounting track assembly, cabling and processor with LCD/keypad, the F-4200 accurately measures most liquids over a wide velocity range. Output signals include a 4-20 mA analog signal that is linear with the flow rate, a scaled pulse for total volume, and a relay for indication of flow direction or alarm status. Optional BTU measurement systems are also available.

GENERAL SPECIFICATIONS

ACCURACY
± 1.0% of reading from 1 to 40 ft/sec
± 0.01 ft/s for velocities below 1 ft/sec
OVERALL FLOW RANGE
0.1 to 40 ft/sec
SENSING METHOD
Clamp-on ultrasonic, differential transit time method in direct or reflect mode
PIPE SIZE RANGE
1/2” through 42” nominal diameter
INPUT POWER
11.5 to 28.5 VDC, 10 Watts maximum
90-240 VAC 50/60 Hz, 15 VA maximum
FLUID TEMPERATURE RANGE
-40° F to 446° F
AMBIENT TEMPERATURE RANGE
14° F to 122° F
STORAGE TEMPERATURE RANGE
-4˚ F to 140˚ F

APPLICATIONS

- Chilled water, hot water, condenser water & water/glycol solutions for HVAC
- Steam condensate
- Domestic/municipal water
- Process water & other clean liquids

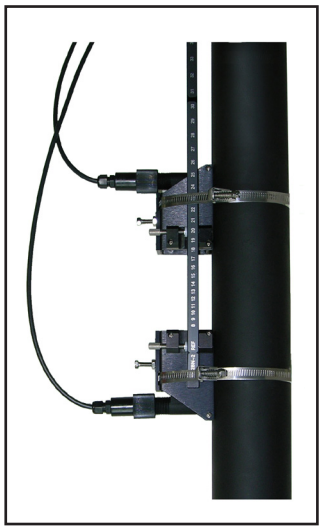
FEATURES

Ideal Solution for Retrofits & Baseline Monitoring - Clamp-on transducers allow for quick installation with no shutdown, no drilling and no pressure drop. Each meter is provided with a built-in one megabyte data logger making it an ideal solution for baseline monitoring.

Simple to Install and Commission - Every ONICON F-4200 is individually configured and programmed using customer specific application data. Complex field programming is not required.

Proprietary Sensing Design Provides High Confidence and Reliability - ONICON provides transducers that are optimized for specific pipe & process conditions. The transducer frequency is automatically matched to the resonant frequency of the pipe at start-up, providing a strong, stable signal with an outstanding signal-to-noise ratio.

Highly Accurate Over a Wide Flow Range - High precision matched transducers combined with our proprietary resonant frequency tuning process provides a strong, stable signal for optimal performance. The integral auto-zero function provides the basis for zero precision and high accuracy, even at very low flow velocities.



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www.onicon.com • sales@onicon.com

GENERAL SPECIFICATIONS (cont.)

OUTPUT SIGNALS PROVIDED

Analog output: Isolated 4-20 mA
(Externally powered 10 – 30 VDC)
Scalable pulse output:
Optically isolated open collector
Contact rating: 30 VDC, 10 mA maximum,
Pulse duration: 50 ms
Relay output for flow direction or alarm:
Programmable form C relay
Contact rating: 30 VDC, 250 mA maximum

ELECTRONICS ENCLOSURE

Wall mount, NEMA 4 steel enclosure

DISPLAY

Alphanumeric 2-line, 16 character per line
multifunction LCD display (Character height, 0.2")

ELECTRICAL CONNECTIONS

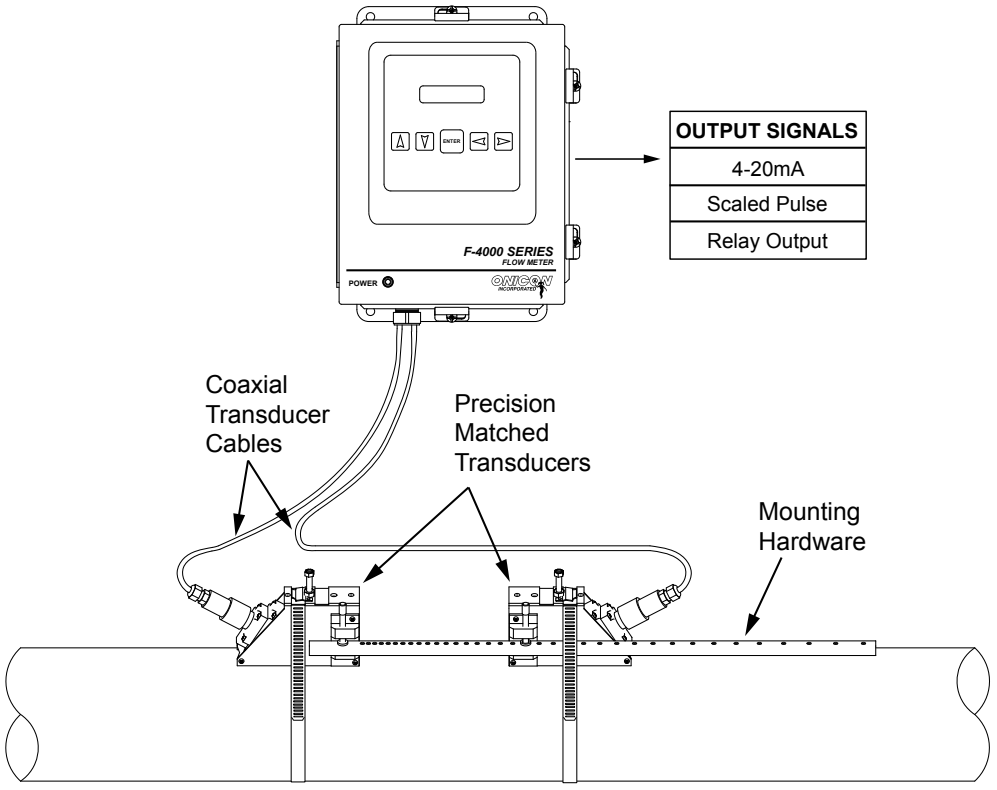
Enclosed terminal blocks, cable access through
four standard ¾" conduit openings

NOTE: Specifications are subject to change without notice.

OPERATING RANGE

Pipe Size (Inches)	Flow Rate (GPM) (0.1 ft/sec - 40 ft/sec)
1	0.3 - 108
1.5	0.6 - 255
2	1.0 - 420
2.5	1.5 - 600
3	2.3 - 920
4	4.0 - 1,560
5	6.2 - 2,500
6	9.0 - 3,600
8	16 - 6,240
10	25 - 9,840
12	35 - 14,100
14	43 - 17,200
16	57 - 22,800
18	73 - 29,200
20	91 - 36,300
24	132 - 53,000
30	210 - 83,900
36	304 - 122,000
40	378 - 151,000
42	417 - 167,000

TYPICAL INSTALLATION



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