

• **INLINE FLOW METER** •  
**MODEL F-1330 TURBINE**  
**SCALED OUTPUT**



Made in the USA

## GENERAL SPECIFICATIONS

### **ACCURACY**

- ± 0.5% of reading at calibrated velocity
- ± 2% of reading from 0.8 to 38 GPM (50:1 range)

### **SENSING METHOD**

- Electronic impedance sensing  
(non-magnetic and non-photoelectric)

### **PROCESS CONNECTIONS**

- Threaded or sweat union fittings ¾" or 1"

### **SUPPLY VOLTAGE**

- 24 ± 4 V AC/DC at 30 mA

### **LIQUID TEMPERATURE RANGE**

- Standard: 180° F continuous, 200° F peak
- High Temp: 280° F continuous, 300° F peak

### **AMBIENT TEMPERATURE RANGE**

- 5° to 160° F (-20° to 70° C)

### **OPERATING PRESSURE**

- 400 PSI maximum

### **PRESSURE DROP**

- 3 PSI at maximum flow rate

### **OUTPUT SIGNALS PROVIDED**

- Scaled Contact Output
  - Isolated solid state dry contact
  - Contact rating: 100 mA, 50 V
  - Contact duration:
    - 50 ms or 300 ms, jumper selectable
- Frequency Output
  - 0 – 15 V peak pulse, typically less than 300 Hz

### **MATERIAL**

- Brass housing and stem
- Sapphire bearings and tungsten carbide shaft

### **ELECTRONICS ENCLOSURE**

- Weather-tight aluminum enclosure

### **ELECTRICAL CONNECTIONS**

- 4-wire minimum for scaled switch output
- Standard: 10' of cable with ½" NPT conduit connection
- Optional: Indoor DIN connector with 10' of plenum rated cable

## DESCRIPTION

ONICON inline turbine flow meters are suitable for measuring electrically conductive water-based liquids. The F-1330 model provides a scaled binary (digital) dry contact output signal where each pulse equals a specific unit volume, an ideal choice for totalized flow applications.

## CALIBRATION

Every ONICON flow meter is wet calibrated in our flow laboratory against primary volumetric standards that are directly traceable to N.I.S.T. A certificate of calibration accompanies every meter.

## FEATURES

**Unmatched Price vs. Performance** - Custom calibrated, highly accurate instrumentation at very competitive prices.

**Excellent Long-term Reliability** - Patented electronic sensing is resistant to scale and particulate matter. Low mass turbines with engineered jewel bearing systems provide a mechanical system that virtually does not wear.

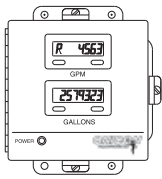
**Industry Leading Two-year "No-fault" Warranty** - Reduces start-up costs with extended coverage to include accidental installation damage (miswiring, etc.) Certain exclusions apply. See our complete warranty statement for details.

## APPLICATIONS

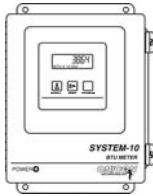
- Closed loop chilled water, hot water, condenser water & water/glycol/brine solutions for HVAC
- Process water & water mixtures
- Domestic water



## ALSO AVAILABLE



Display Modules



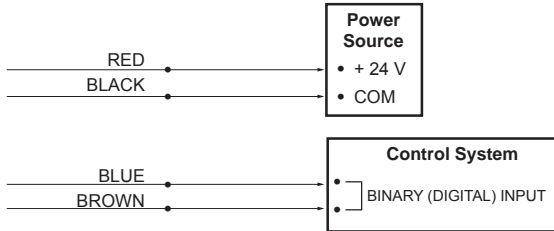
Btu Measurement Systems

## F-1330 Wiring Information

WIRE COLOR	DESCRIPTION	NOTES
RED	(+) 24 V AC/DC supply voltage, 30 mA	Connect to power supply positive.
BLACK	(-) Common ground (Common with pipe ground)	Connect to power supply negative.
GREEN	(+) Frequency output signal: 0-15 V peak pulse	Required when meter is connected to local display or Btu meter.
BLUE	Dry contact switch output	Scaled to provide one pulse per desired unit volume.
BROWN		

## F-1330 Wiring Diagram

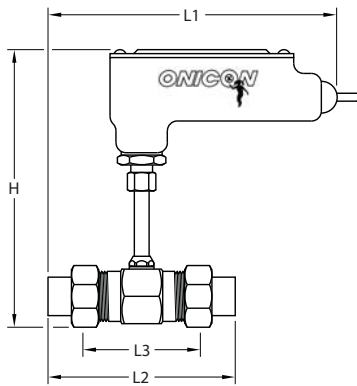
Flow meter into control system (no display or Btu meter)



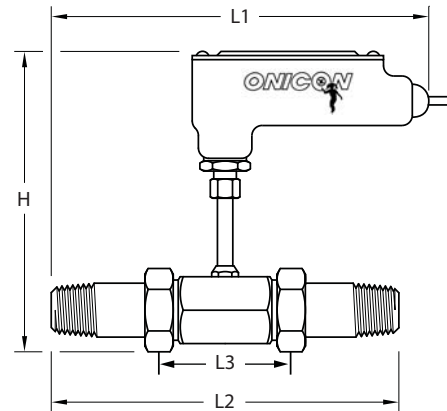
### NOTE:

1. Black wire is common with the pipe ground (typically earth ground).
2. Frequency output required for ONICON display module or Btu meter, refer to wiring diagram for peripheral device.

## Inline Flow Meter Dimensions



Sweat		Threaded
9"	L1	10 1/4"
5 3/8"	L2	8 5/8"
3 1/4"	L3	3 1/4"
8"	H	8"
2"	MAX WIDTH	2"



## Typical Meter Installation

(New construction or scheduled shutdown)

- Flush piping system thoroughly before installing meter
- Acceptable to install in vertical pipe
- Position meter anywhere in upper 240° for horizontal pipe
- Connections: 3/4" or 1", male NPT threaded or sweat

