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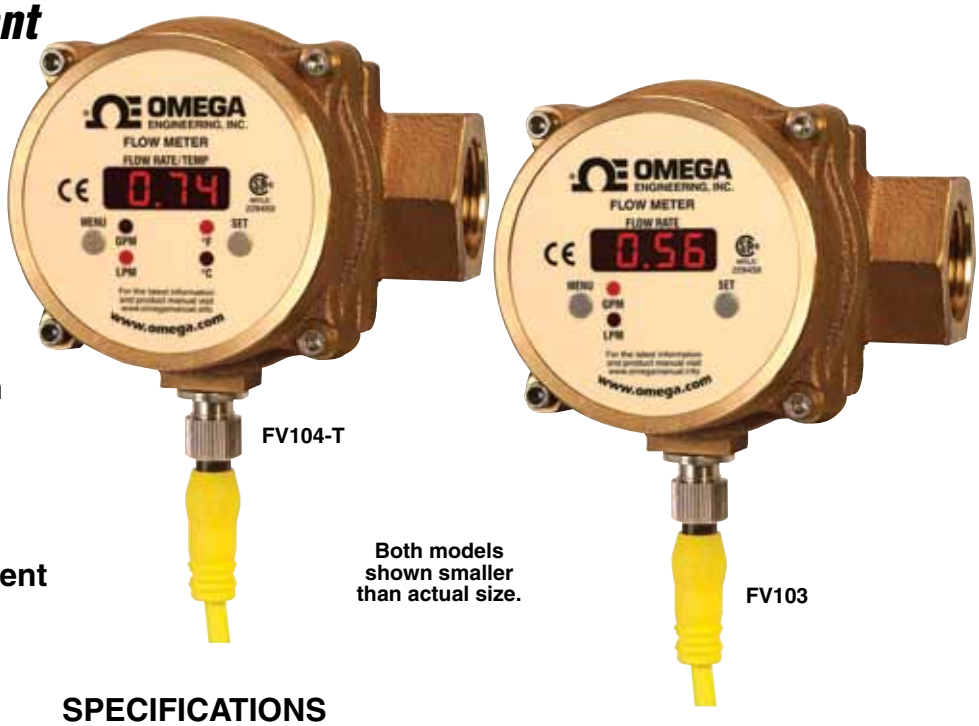
Find the *OMEGA FV102* at our website: *Click HERE*

VORTEX SHEDDING FLOWMETER AND TEMPERATURE TRANSMITTER

For Water and Coolant

FV101 Series

1 YEAR WARRANTY CE RoHS



FV104-T

Both models shown smaller than actual size.

FV103

- **No Moving Parts to Jam**
- **¼ FNPT to 4" Line Sizes**
- **LED Display**
- **4 to 20 mA Output**
- **SSR Alarm**
- **Temperature Measurement Units Feature Separate 4 to 20 mA Output and SSR Alarm**

The FV101 Series comprises in-line flowmeters that use the vortex shedding measuring principle. The fluid strikes a bluff body, imparting alternating vortices downstream of the bluff. This creates a pressure on a sensor body containing a piezoelectric crystal. The frequency of the sensor is proportional to the velocity of the fluid and is amplified and converted to a 4 to 20 mA output signal. Vortex technology yields a meter with no moving parts to hang up or wear. The meter has a bright 7.62 mm (0.3") high LED display of flow in either liters or gallons. It can measure flow in any direction, and the display can be rotated 180° for viewing convenience. The FV101 Series can be used with non-viscous, clean, or dirty waterlike liquids that are compatible with brass, PVDF, and FKM. Measured fluids should not contain long fibers or a high level of abrasive solids. These meters are ideal for cooling loops using water or 50% glycols, and for water-soluble machine coolant (up to 10%). These applications are found in most process industries, including rubber, steel, fabrication, manufacturing, refining, paper, chemical, food, petrochemical, and power. Do not use on flammable liquids or on gases such as air.

SPECIFICATIONS

Flow
- **Accuracy:** ±2% FS
- **Repeatability:** ±0.25% FS
- **Alarm Deadband:** 5% FS
- **Response Time:** User selectable from 0.9 to 7.5 seconds
- **Max Flow:** Over range occasionally up to 125% of capacity

Temperature
- **Accuracy:** ±1% FS
- **Response Time:** 1.8 s to 63% of flow
- **Alarm Deadband:** 2%

Display: 3-digit, 7.62 mm (0.3") high numeric LED that flashes below setpoint

Maximum Operating Pressure:
- **2" and Smaller:** 20 bar (300 psig)
- **3 and 4":** 13 bar (200 psig)

Operating Temperature: 2 to 99°C (35 to 210°F)

Enclosure Rating:
- **IP65:** Type 1, 3, 4, 12, and 13

Analog Output: 4 to 20 mA (600 Ω @ 24 Vdc)

Electrical Connection:
- **FV100 Units (Flow Only):** 5-pin micro male connector,
- **FV100-T Units (Flow/Temperature):** 8-pin male micro connector

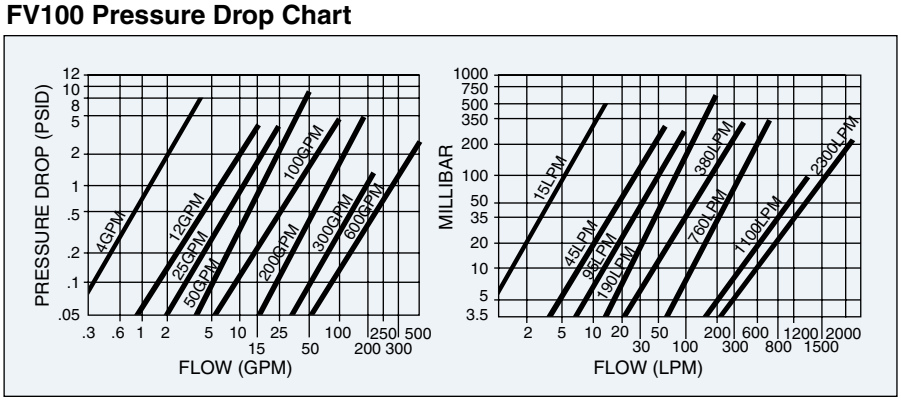
Alarm Output: SPST SSR, NO or NC operation, selectable; dual alarms for flow/temperature units
- **FV101 and 102:** 250 mA @ 30 Vdc up to 85°C (185°F)
- **FV103 thru 108:** 125 mA @ 30 Vdc up to 85°C (185°F) reduced current rating at higher temperatures

Power: 10 to 30 Vdc @ 80 mA

Wetted Parts: Brass, PVDF and FKM seals; 316 SS bodies available for special order on ¼ and ½" sizes, contact Flow Engineering for details.

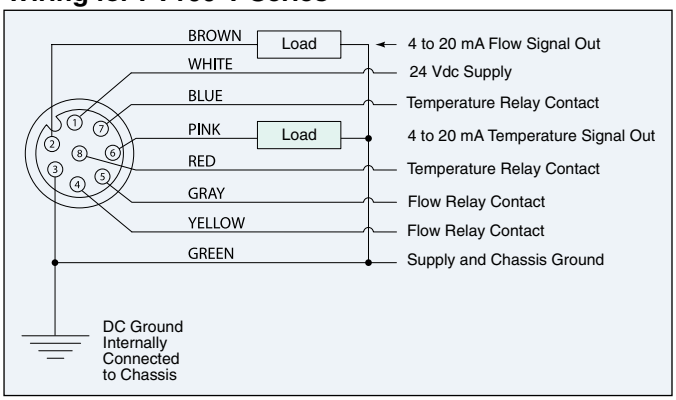
Installation: 10 pipe diameters upstream and 5 downstream recommended

FV100 Pressure Drop Chart

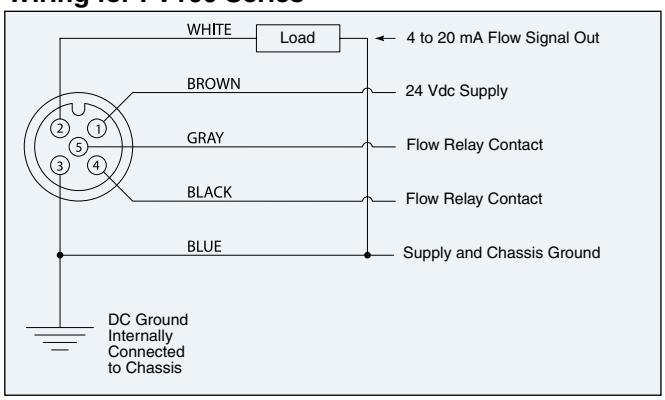


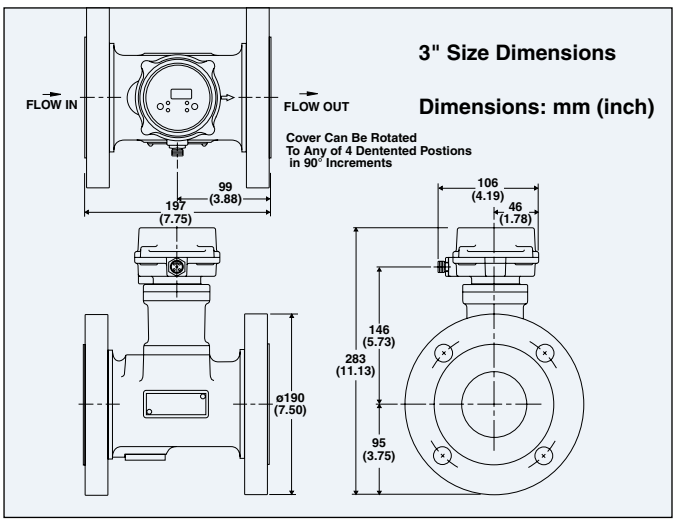
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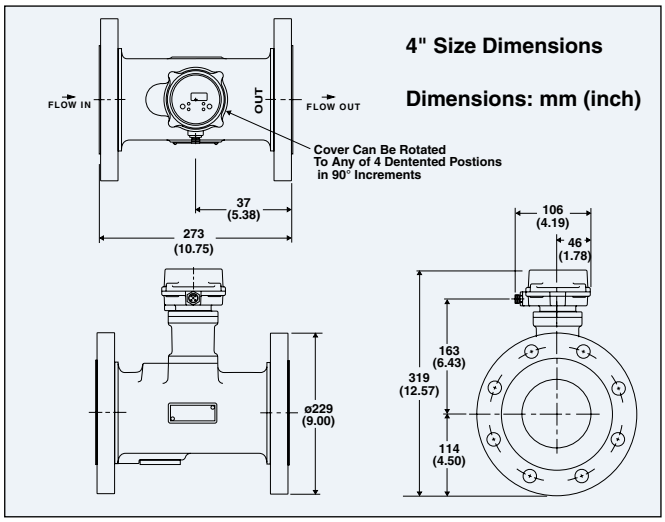
Wiring for FV100-T Series



Wiring for FV100 Series

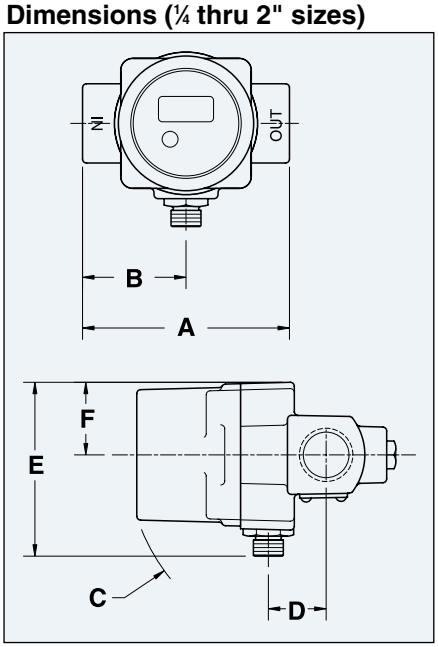






Ø = diameter

Dimensions (¼ thru 2" sizes)



Size (inch)	mm (inch)					
	A	B	C	D	E	F
¼, ½	82 (3.25)	41 (1.62)	80 (3.13)	23 (0.91)	69 (2.74)	29 (1.15)
¾, 1	115 (4.54)	58 (2.27)	103 (4.04)	53 (2.08)	106 (4.19)	45 (1.78)
1½, 2	173 (6.82)	87 (3.41)	120 (4.71)	71 (2.80)	106 (4.19)	45 (1.78)

To Order

Flowmeter Model No.	Flowmeter/ Temperature Transmitter Model No.	Connection	Flow Range (GPM) Min	Flow Range (GPM) Max	Pressure Drop psid Max	Weight kg (lb)
FV101	—	¼ FNPT	0.4	4	9.2	1.3 (2.8)
FV102	—	½ FNPT	1.2	12	3.6	1.2 (2.6)
FV103	**FV103-T**	¾ FNPT	2.5	25	3.6	2.9 (6.3)
FV104	**FV104-T**	1 FNPT	5	50	9.5	2.7 (5.9)
FV105	**FV105-T**	1½ FNPT	10	100	4.8	5.9 (13)
FV106	**FV106-T**	2 FNPT	20	200	4.9	4.8 (10.5)
FV107	**FV107-T**	3" ANSI RF	30	300	1.3	19 (42)
FV108	**FV108-T**	4" ANSI RF	60	600	1.3	25 (55)

Accessories

Model No.	Description
FV100-C1	Replacement 1 m (3') cable for FV100 Series
FV100-C3	3 m (9.8') cable for FV100 Series
FV100-C10	10 m (32.8') cable for FV100 Series
FV100-CT2	Replacement 2 m (6.5') cable FV100-T Series
FV100-CT5	5 m (16.4') cable for FV100-T Series
FV100-CT10	10 m (32.8') cable for FV100-T Series
PSR-24L	24 Vdc regulated power supply

Comes complete with operator's manual and 1 m (3') cable.
Ordering Examples: FV101, *¼ FNPT vortex meter, 0.4 to 4 GPM.*
FV104, *1 FNPT 5 to 50 GPM meter.*

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