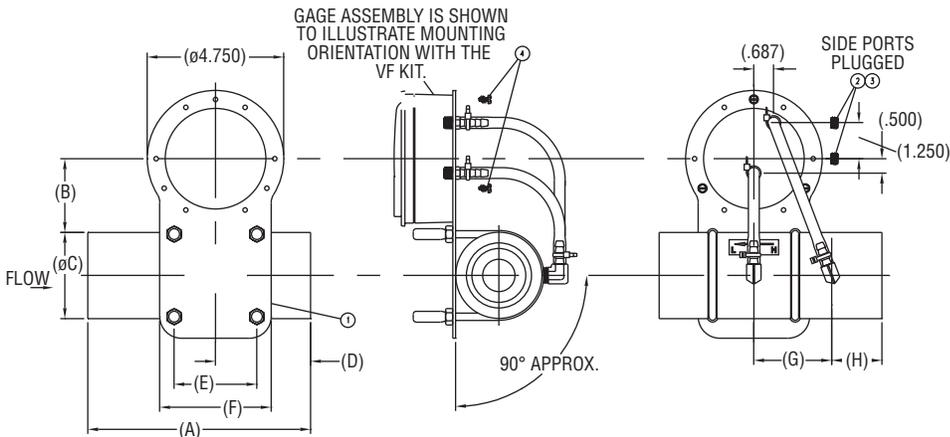




# Venturi Flow Meter with Magnehelic® Gage

## Specifications - Installation and Operating Instructions



VFLO Kit	Line Size	A	B	ØC	D	E	F	G	H	J	K
VF1	1" FNPT	4.500	2.687	2	2.015	2.125	3.125	1.359	1.125	4.625	6.375
VF2	1.5" FNPT	6	2.562	2.500	2.625	2.375	3.375	2	1.375	5.250	7.125
VF3	2" FNPT	7.750	2.562	3	3.312	2.875	3.875	2.703	1.750	5.750	7.875
VF4	3" FNPT	11	2.734	4	4.625	4	5.500	4	2.375	7	9.625
VF5	4" FNPT	14.500	2.734	5.000	5.172	5.000	6.500	5.328	3.000	9.250	11.500

The Venturi Flow Meter with Magnehelic® Gage is fabricated from aluminum and has a gradual Venturi profile to reduce pressure losses through the meter. Flexible connections enable the meter to be used in vertical or horizontal applications. The Magnehelic® gage provides a large, clear and accurate display of your differential pressure reading. Each meter is calibrated at standard atmospheric conditions. The dual scale reads in SCFM and in .w.c. The meter is supplied with flow correction calculation sheet for various flow conditions. It is available in line sizes from 1" to 4" and can handle vacuum and pressure applications.

**MOUNTING**

**Location:**

The flow tube should be installed with minimum 8 diameters of pipe run ahead and 5 diameters of pipe run after. This will ensure steady flow and accurate readings.

**Installation:**

1. The meter can be installed in a vertical or horizontal position. The Magnehelic® gage must be positioned such that it is read in a horizontal orientation. The meter comes in a horizontal left to right configuration. If a vertical orientation is required then the Magnehelic® gage must be rotated 90° and remounted on bracket.
2. The Magnehelic® gage can be mounted remotely from the meter. If this is done make sure to keep the Magnehelic® gage above the Venturi Flow Tube assembly. Condensation may collect in the tube if it is below the gage and cause false readings.
3. The Venturi Flow Tube must be connected in the correct orientation. For example, in a left to right flow, the high pressure side which is on the left connects to the high pressure port on the Magnehelic® gage. The low pressure side is on the right and connects to the low pressure port of the Magnehelic® gage.

**SPECIFICATIONS**

- Service:** Air and non-combustible, compatible gases. (Natural Gas option available).
- Wetted Materials:** Aluminum, silicone, acrylic, polycarbonate, high carbon steel, low carbon steel, brass, paper, acrylic paint, enamel paint, alkyd coating, nickel plate, zinc plate, helzel FC, 300 series stainless steel, PTFE, Loctite® AV sealant, commercial black rubber, neoprene, samarium cobalt, nickel alloy steel cover, beryllium copper.
- Housing:** Die cast aluminum case and bezel, with acrylic cover. Exterior finish is coated gray to withstand 168 hour salt spray corrosion test.
- Accuracy:** ± 2.5% FS.
- Pressure Limits:** -20" Hg to 15 psig (-0.677 bar to 1.034 bar); MP option: 35 psig (2.41 bar). For applications with high cycle rate within gage total pressure rating, next higher rating is recommended.
- Overpressure:** Relief plug opens at approximately 25 psig (1.72 kPa).
- Temperature Limits:** 20 to 140°F (-6.67 to 60°C).
- Size:** 4" (101.6 mm) diameter dial face.
- Mounting Orientation:** Diaphragm in vertical position. Consult factory for other position orientations.
- Process Connection:** Female NPT of nominal line size (from 1" to 4").
- Weight:** Gage only: 1 lb 2 oz (510 g), MP & HP 2 lb 2 oz (963 g). Venturi: 1": 3 lbs (1.36 kg); 1-1/2": 4.5 lbs (2.04 kg); 2": 6 lbs (2.72 kg); 3": 11 lbs (4.99 kg); 4": 18 lbs (8.16 kg).

**MAINTENANCE**

After final installation of the Venturi Flow Meter with Magnehelic® Gage, no routine maintenance is required. A periodic check of system calibration is suggested. These devices are not field repairable and should be returned if repair is needed. Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.

**Note:** Loctite® is a registered trademark of Henkel Corporation.