

GL Flow Gx Gas Bi-Directional Turbine Flowmeters

The Gx range of Turbine Flowmeters are suitable for the measurement of dry gases (inert and flammable) and are designed to operate at line pressures down to 0.01 bar (0.2 psi)

They comprise of one cartridge assembly, fitted inside a stainless steel body (locked with an internal circlip), which has a magnetic pick up fitted and come in a range of threaded, flanged or wafer (designed for between flange installations) styles.

The Rotor (fitted with low inertia, precision bearings) is turned by the kinetic energy of the flowing gas at an angular velocity, which in the linear range of the Flowmeter is proportional to the mean axial velocity of the gas.

The Rotor blades sweep out the full bore of the meter except for a small tip clearance space. As the blade tips pass the magnetic pick up they initiate a pulse. Flow rate is determined by the frequency of the pulses and Totalized Flow is obtained by summing the pulses.



“ 101 “ Totalisers, which sum the pulses automatically and display Flow Rate and Total Flow instantly on the readout can be mounted on the Turbine or fitted remotely.

GENERAL SPECIFICATIONS

Materials

| | |
|---------------------|-----------------------|
| Body: | 316 Stainless Steel |
| Rotor Support: | 316 Stainless Steel |
| Ball Race Bearings: | 440C Stainless Steel |
| Rotor: | ANC1A Stainless Steel |
| Rotor Shaft: | 316 Stainless Steel |



Performance

| | |
|-----------------|---|
| Accuracy: | ± 2.0 % FS ($< \pm 0.5$ % FS when used with “101” Totalizer) |
| Repeatability: | ± 0.2 % |
| Temperature: | -30 to 180 °C (- 22 to + 356 °F) |
| Pressure Drop: | 0.01 bar (0.2 psi) at maximum quoted flow rate (based on test pressure of 1 bar (14.5 psi)) |
| Flow direction: | Standard bi-directional; indication of flow direction optional |

Style

| | | | |
|------|-------------------|------|--------------------|
| NPT: | NPT Male Threaded | BSP: | BSPP Male Threaded |
| FL1: | ANSI 150 Flanged | FL2: | ANSI 300 Flanged |
| WAF: | Wafer | | |

Option: IS: Intrinsically Safe Pick Up QU: Flow Direction Signal



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NPT & BSP Style**Maximum Pressure: 250 bar (3625 psi)**

| Size | Connection | Flow Range lpm (acfm) | Length (inches) |
|---------|------------------|-----------------------|-------------------|
| 1/2 " | 1/2 " NPT / BSP | 8.3 – 117 (0.3 – 4.1) | 2.75 |
| 5/8 " | 3/4 " NPT / BSP | 17 – 233 (0.6 – 8.2) | 3.0 |
| 3/4 " | 3/4 " NPT / BSP | 42 – 583 (1.5 –21) | 3.0 |
| 1 " | 1" NPT / BSP | 83 – 1167 (3 – 41) | 3.5 |
| 1 1/2 " | 1 1/2" NPT / BSP | 167 – 2333 (6 – 82) | 4.5 |
| 2 " | 2 " NPT / BSP | 300 – 4200 (11 – 148) | 5.25 |

FL1 Style**Max. Pressure: 19 bar (275 psi)****FL2 Style****Max. Pressure: 50 bar (740 psi)**

| Size | Connection | Flow Range lpm (acfm) | Length (inches) |
|---------|-------------------|-------------------------|-------------------|
| 3/4 " | 3/4" FL1 / FL2 | 42 – 583 (1.5 –21) | 5.5 |
| 1 " | 1" FL1 / FL2 | 83 – 1167 (3 – 41) | 6.0 |
| 1 1/2 " | 1 1/2 " FL1 / FL2 | 167 – 2333 (6 – 82) | 6.5 |
| 2 " | 2 " FL1 / FL2 | 300 – 4200 (11 – 148) | 6.5 |
| 3 " | 3 " FL1 / FL2 | 583 – 8167 (20 – 288) | 6.5 |
| 4 " | 4 " FL1 / FL2 | 1167 – 16333 (41 – 577) | 8.25 |

WAF Style**Maximum Pressure: 100 bar (1450 psi)**

| Size | Connection | Flow Range lpm (acfm) | Length (inches) |
|---------|-----------------------|-----------------------|-------------------|
| 3/4 " | 3/4" R.F. Diameter | 42 – 583 (1.5 –21) | 2.0 |
| 1 " | 2 " R.F. Diameter | 83 – 1167 (3 – 41) | 2.0 |
| 1 1/2 " | 2 7/8 " R.F. Diameter | 167 – 2333 (6 – 82) | 2.5 |
| 2 " | 3 5/8 " R.F. Diameter | 300 – 4200 (11 – 148) | 3.0 |
| 3 " | 5 " R.F. Diameter | 583 – 8167 (20 – 288) | 4.0 |

Gx Turbines suitable for Hazardous Installations (Eex ia IIC T4) are available with optional intrinsically safe Pick Up

Order code: Gx / Style / Size / (Option)

e.g.: Gx / NPT / 3/4 " / IS

Internals Kit's (calibrated) can be supplied, which are very easy to retrofit in to an existing Body on location, (eliminating the need to return the Turbine).

Gx Internals Kit Order code: Gxin / FL1 / Size

e.g.: Gxin / FL1 / 4 "



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