

GL Flow LX Liquid Bi-Directional Turbine Flowmeters

The LX range of bi-directional Turbine Flowmeters meets the demand of most liquid measurement applications.

They basically comprise of three-component assembly, fitted inside a stainless steel body (locked with an internal clip), which has a magnetic pick-up. The meters are available in threaded, flanged, wafer (designed for between flange installations) or Tri -Clamp (for Dairy, Brewery, Pharmaceutical and Food processing industries) connections.

The Rotor & Shaft assembly, which is mounted between journal bearings inside the two Rotor Shaft Support Assemblies, is turned by the kinetic energy of the flowing fluid at an angular velocity, which in the linear range of the Flowmeter is proportional to the mean axial velocity of the fluid.



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 Total Flow is obtained by accumulating the pulses.

GL Flow series "101 " Totalizers sum the pulses automatically and display Flow Rate and Total Flow on the readout. The Totalizer can be mounted on the Turbine or placed remotely.

GENERAL SPECIFICATIONS

Materials

Body:	316 Stainless Steel
Rotor Supports:	316 Stainless Steel
Journal Bearings:	Tungsten Carbide
Thrust Ball:	316 Stainless Steel
Rotor:	ANC1A Stainless Steel
Rotor Shaft:	Tungsten Carbide



Performance

Accuracy:	$\pm 0.5 \% \text{ FS}$ ($< \pm 0.2 \% \text{ FS}$ when used with " 101 " Totalizer)
Repeatability:	$\pm 0.1 \%$
Viscosity:	$< 100 \text{ cSt}$ with no influence on accuracy, max. 300 cSt .
Temperature:	$-30 \text{ to } 120 \text{ }^\circ\text{C}$ ($- 22 \text{ to } + 248 \text{ }^\circ\text{F}$) maximum $350 \text{ }^\circ\text{C}$ ($662 \text{ }^\circ\text{F}$) with optional High Temperature Pick-Up).
Pressure Drop:	0.25 bar (3.7 psi) at maximum flow rate.
Flow Direction:	Standard bi-directional; indication of flow direction optional



FL1 (with 101 Totalizer)



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Style

NPT: NPT Male Threaded
 BSP: BSPP Male Threaded
 FL1: ANSI 150 Flanged
 FL2: ANSI 300 Flanged
 WAF: Wafer (between flanges)
 TRI: Tri – Clamp



TRI-Clamp Style

Options

HT: High Temperature Pick-Up
 IS: Intrinsically Safe Pick-Up
 QU: Flow direction signal

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

Size	Connection	Flow Range lpm (gpm)	Length (inches)
½ "	½ " NPT / BSP	2 – 20 (0.53– 5.3)	2.75
5/8 "	¾ " NPT / BSP	5 – 50 (1.3 – 13)	3.0
¾ "	¾ " NPT / BSP	14 – 140 (3.7 – 37)	3.0
1 "	1" NPT / BSP	27 – 270 (7.1 – 71)	3.5
1 ½ "	1 ½" NPT / BSP	55 – 550 (14.5 – 145)	4.5
2 "	2 " NPT / BSP	114 – 1140 (30 – 300)	5.25

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

Size	Connection	Flow Range lpm (gpm)	Length (inches)
¾ "	¾" FL1 / FL2	14 – 140 (3.7 – 37)	5.5
1 "	1" FL1 / FL2	27 – 270 (7.1 – 71)	6.0
1 ½ "	1½ " FL1 / FL2	55 – 550 (14.5 – 145)	6.5
2 "	2 " FL1 / FL2	114 – 1140 (30 – 300)	6.5
3 "	3 " FL1 / FL2	227 – 2270 (60 – 600)	6.5
4 "	4 " FL1 / FL2	454 – 4540 (120 – 1200)	8.25
6 "	6 " FL1 / FL2	908 – 9080 (240 – 2400)	9.5



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

Size	Connection	Flow Range lpm (gpm)	Length (inches)
¾ "	¾" R.F. Diameter	14 – 140 (3.7 – 37)	2.0
1 "	2 " R.F. Diameter	27 – 270 (7.1 – 71)	2.0
1 ½ "	2 7/8 " R.F. Diameter	55 – 550 (14.5 – 145)	2.5
2 "	3 5/8 " R.F. Diameter	114 – 1140 (30 – 300)	3.0
3 "	5 " R.F. Diameter	227 – 2270 (60 – 600)	4.0

TRI-Clamp Style**Maximum Pressure: 68 bar (986 psi)**

Size	Connection	Flow Range lpm (gpm)	Length (inches)
¾ "	1 " Ferrule	14 – 140 (3.5 – 35)	2.0
1 "	1 ½ " Ferrule	27 – 270 (7 – 70)	2.5
1 ½ "	2 " Ferrule	55 – 550 (14.5 – 145)	3.5
2 "	2 ½ " Ferrule(114 – 1140 (30 – 300)	4.0

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

Order Code: LX / Style / Size / (Option)

e.g.: LX / WAF / 2 " / HT

Internals Kit 's (calibrated) can be supplied, which are retrofittable to an existing GL Flow Meter.

LX Internals Kit Order code: LX / Style / Size

e.g.: LXIN / NPT / 1/2 "



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