

# Lx Stainless Steel Turbine Flowmeter

The Lx range of Turbine Flowmeters meet the demand of most liquid measurement applications.

## OPERATING PRINCIPLE

They basically comprise of three component assemblies, fitted inside a stainless steel body (locked with an internal cir-clip), 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 & Shaft assembly (1 off) which is mounted between journal bearings inside the Rotor Shaft Support assemblies (2 off) 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 Totalised Flow is obtained by summing the pulses.

## DISPLAYS

101 Totaliser, 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. There are different types of displays available with various options:

- Pulse output
- 4-20mA
- Intrinsically safe; suitable for Hazardous Installations (Ex ia IIC T4)
- Batch control

## SPECIFICATIONS

Body, Rotor Supports & Thrust Ball are 316 Stainless Steel  
Journal Bearings & Rotor Shaft are Tungsten Carbide  
Rotor is ANC1A Stainless Steel

## PERFORMANCE

Linearity : +/-0.5% (better than +/-0.2% when used with 101 display)  
Repeatability : +/-0.1%  
Temperature : -30 to +120degC (maximum +350degC with optional HT pickup)  
Pressure drop : 250mbar at maximum quoted flow rate



Flanged with 101 Display



BSP Male



TRI - Tri-clamp

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BSP & NPT – Maximum pressure 250bar

Size	Connection	Flow range (LPM)	Length (mm)
3/8"	1/2" BSP or NPT	2 - 10	70
1/2"	3/4" BSP or NPT	2 - 20	70
5/8"	3/4" BSP or NPT	5 - 50	76
3/4"	3/4" BSP or NPT	14 - 140	76
1"	1" BSP or NPT	27 - 270	88
1 1/2"	1 1/2" BSP or NPT	55 - 550	114
2"	2" BSP or NPT	114 - 1140	133

FL1 (ANSI 150) – Maximum pressure 19bar

FL3 (PN16) – Maximum pressure 16bar

FL2 (ANSI 300) – Maximum pressure 29bar

FL4 (PN25) – Maximum pressure 25bar

Size	Connection	Flow range (LPM)	Length (mm)
3/4"	3/4" FL1, FI2, FL3 or FL4	14 - 140	140
1"	1" FL1, FI2, FL3 or FL4	27 - 270	152
1 1/2"	1 1/2" FL1, FI2, FL3 or FL4	55 - 550	165
2"	2" FL1, FI2, FL3 or FL4	114 - 1140	165
3"	3" FL1, FI2, FL3 or FL4	227 - 2270	165
4"	4" FL1, FI2, FL3 or FL4	454 - 4540	210
6"	6" FL1, FI2, FL3 or FL4	908 - 9080	240

TRI (RJT) – Maximum pressure 68bar

Size	Connection	Flow range (LPM)	Length (mm)
3/4"	1" Ferrule	14 - 140	50
1"	1 1/2" Ferrule	27 - 270	64
1 1/2"	2" Ferrule	55 - 550	88
2"	2 1/2" Ferrule	114 - 1140	100

Data provided is subject to technical changes in the course of further development

Last amended October 2010