

Lx Turbine Flowmeters

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

They basically comprise of three component assemblies , 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 , wafer (designed 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 .

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



Performance

Linearity	: +/- 0.5 % (better than +/- 0.2 % when used with “ 101 “ Totaliser) .
Repeatability	: +/- 0.1 % .
Temperature	: - 30 °C to + 120 °C (maximum + 350 °C with optional High Temperature Pick Up) .
Pressure Drop	: 250 mbar at maximum quoted Flow rate .

Style

BSP	: BSPP Male Threaded .	NPT	: NPT Male Threaded .
FL1	: ANSI 150 Flanged .	FL2	: ANSI 300 Flanged .
FL3	: BS 4504 (DIN) PN16 .	FL4	: BS 4504 (DIN) PN25 .
WAF	: Wafer .	TRI	: Tri – Clamp .



Options

HT	: High Temperature Pick Up .
IS	: Intrinsically Safe Pick Up .
2P	: Second Pick Up fitted .

Lx Turbines fitted with the intrinsically safe pick up (IS option) are suitable for Hazardous Installations (Eex ia IIC T4) .

BSP & NPT Style Maximum Pressure : 250 Bar

Size	Style	Connection	Flow Range (litres / min)	Length (mm)
3/8 "		1/2" BSP or NPT	1 – 10	70
1/2"		1/2" 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 Style Maximum Pressure : 19 Bar FL2 Style Maximum Pressure : 29 Bar
FL3 Style Maximum Pressure : 16 Bar FL4 Style Maximum Pressure : 25 Bar

Size	Style	Connection	Flow Range (litres / min)	Length (mm)
3/4"		3/4" FL1 , FL2 , FL3 or FL4	14 - 140	140
1 "		1 " FL1 , FL2 , FL3 or FL4	27 – 270	152
1 1/2"		1 1/2" FL1 , FL2 , FL3 or FL4	55 – 550	165
2 "		2 " FL1 , FL2 , FL3 or FL4	114 – 1140	165
3 "		3 " FL1 , FL2 , FL3 or FL4	227 – 2270	165
4 "		4 " FL1 , FL2 , FL3 or FL4	454 – 4540	210
6 "		6 " FL1 , FL2 , FL3 or FL4	908 - 9080	240

WAF Style Maximum Pressure : 100 Bar

Size	Style	Connection	Flow Range (litres / min)	Length (mm)
3/4"		43 mm R.F. Diameter	14 – 140	50
1 "		52 mm R.F. Diameter	7 - 70	50
1 1/2"		73 mm R.F. Diameter	14.5 - 145	64
2 "		92 mm R.F. Diameter	30 - 300	76
3 "		127 mm R.F. Diameter	60 – 600	100

TRI Style Maximum Pressure : 68 Bar

Size	Style	Connection	Flow Range (litres / min)	Length (mm)
3/4"		1 " Ferrule	3.5 – 35	50
1 "		1 1/2" Ferrule	7 – 70	64
1 1/2"		2 " Ferrule	14.5 – 145	88
2 "		2 1/2" Ferrule	30 - 300	100

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

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

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) .

Lx Internals Kit Order code : Lx / Style / Size

e.g. : Lx / NPT / 1/2

Lx Turbines can be “ custom made to your requirements “