FL750 Series

In-Line Flow Indicator

Flow Indicators are designed for continuous monitoring or intermittent use commissioning and servicing hydraulic systems up to 420 bar, 6000 psi.

The large clear 63mm (2 1/2”) diameter dial ensures that quick checks can be made to determine pump performance and setting of flow control valves. They can be used on mobile and industrial hydraulic circuits. Also lubrication and coolant systems using oil.

These direct acting flow indicators can be installed in hazardous areas or on applications where no power is available. The flow indicator design ensures good reliability and minimises the effects of contamination.

The FL750 flow indicators should not be installed in circuits where the flow is reversed.

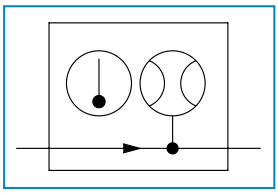
Specifications

Maximum Rated Pressure:		Up to 420 bar, 6,000 psi
Maximum Rated Flow:		Up to 180 L/min, 48 US gpm
Ambient Temperature:		-10 to 50°C, 14 to 122°F
Porting:		BSPP, NPSF, SAE
Material:	**Body Material:**	Aluminium 2011T6
	Internal Material:	Mainly Brass
	Seal:	FKM
Weight:		1.4 kg, 3.1 lbs

Features

- Accuracy within 4% FSD
- Built in thermometer available
- Dual scale L/min/US gpm
- Large clear dial
- Horizontal or vertical mounting
- Rugged design
- Pressure gauge port
- Wide operating range

Symbol:



Sales Order Code

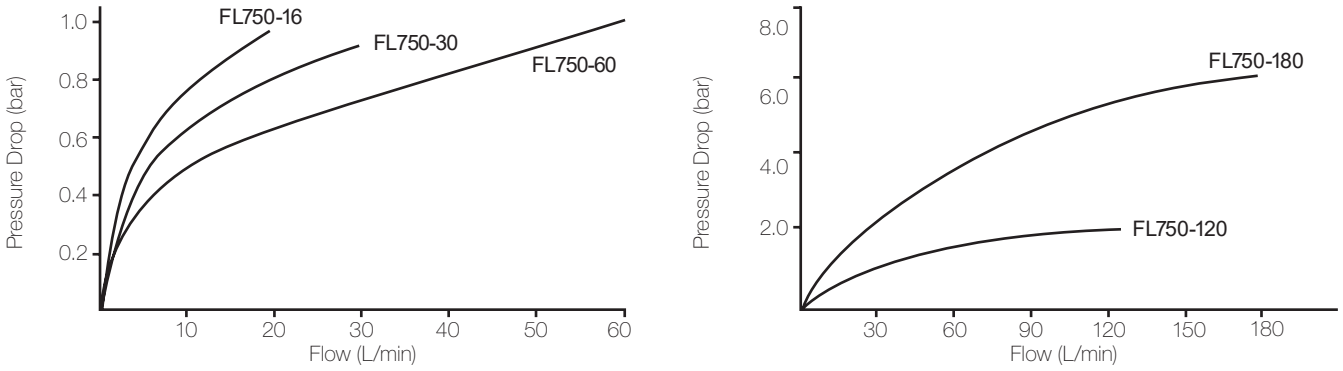
Please contact our technical sales team to discuss any special order requirements.

MODEL NUMBER		CALIBRATED FLOW RANGE		MAIN PORTS	TOP PORTS	MAX RATED PRESSURE
WITH TEMPERATURE	WITHOUT TEMPERATURE	L/min	US gpm			
FL750-16 ABOT	FL750-16 ABO	2 - 16	0.5 - 4	3/4" BSPP	1/4" BSPP	420 bar
FL750-30 ABOT	FL750-30 ABO	2 - 30	0.5 - 8	3/4" BSPP	1/4" BSPP	420 bar
FL750-60 ABOT	FL750-60 ABO	2 - 60	0.5 - 16	3/4" BSPP	1/4" BSPP	420 bar
FL750-120 ABOT	FL750-120 ABO	4 - 120	1 - 32	3/4" BSPP	1/4" BSPP	420 bar
FL750-180 ABOT	FL750-180 ABO	10 - 180	4 - 48	3/4" BSPP	1/4" BSPP	420 bar
FL750-16 ANOT	FL750-16 ANO	2 - 16	0.5 - 4	3/4" NPSF	1/4" NPTF	6000 psi
FL750-30 ANOT	FL750-30 ANO	2 - 30	0.5 - 8	3/4" NPSF	1/4" NPTF	6000 psi
FL750-60 ANOT	FL750-60 ANO	2 - 60	0.5 - 16	3/4" NPSF	1/4" NPTF	6000 psi
FL750-120 ANOT	FL750-120 ANO	4 - 120	1 - 32	3/4" NPSF	1/4" NPTF	6000 psi
FL750-180 ANOT	FL750-180 ANO	10 - 180	4 - 48	3/4" NPSF	1/4" NPTF	6000 psi
FL750-16 ASOT	FL750-16 ASO	2 - 16	0.5 - 4	1 - 1/16" - 12 UNF #12 SAE ORB	1/4" NPTF	6000 psi
FL750-30 ASOT	FL750-30 ASO	2 - 30	0.5 - 8	1 - 1/16" - 12 UNF #12 SAE ORB	1/4" NPTF	6000 psi
FL750-60 ASOT	FL750-60 ASO	2 - 60	0.5 - 16	1 - 1/16" - 12 UNF #12 SAE ORB	1/4" NPTF	6000 psi
FL750-120 ASOT	FL750-120 ASO	4 - 120	1 - 32	1 - 1/16" - 12 UNF #12 SAE ORB	1/4" NPTF	6000 psi
FL750-180 ASOT	FL750-180 ASO	10 - 180	4 - 48	1 - 1/16" - 12 UNF #12 SAE ORB	1/4" NPTF	6000 psi

Note - All NPTF threads are to ANSI B1.20.3 -1976 Class 1. As stated in the standard it is recommended that "sealing is accomplished by the means of a sealant applied to the thread". NPT fittings may also be used to connect to NPTF ports (also with a sealant applied to the thread).

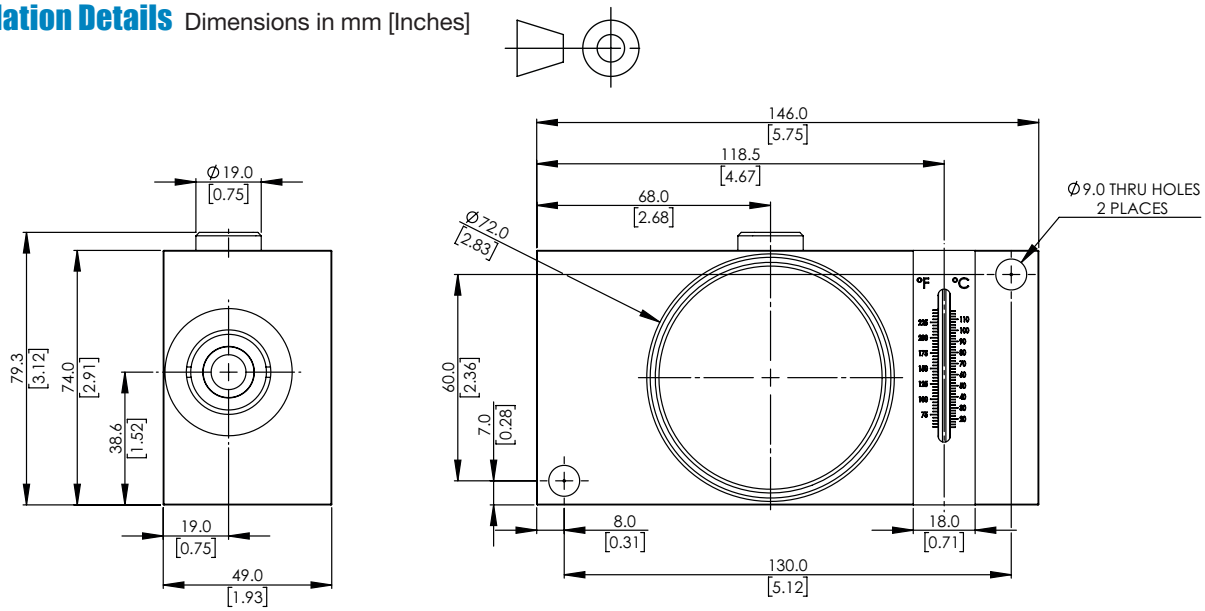
Typical Pressure Drop Curves

All tests completed using ISO32 Mineral oil at 25 cSt



Installation Details

Dimensions in mm [Inches]



Functional Specification

Ambient Temperature range:	-10 to 50°C, 14 to 122°F
Compatible Fluids:	Mineral oils to ISO 11158. Other fluids consult sales office.
Fluid Temperature Range:	20 to 80°C, 65 to 176°F continous use. Intermittently (<10 minutes) up to 110°C, 230°F.
Accuracy:	
Flow:	± 4% of full scale
Temperature:	± 2.5°C (±5°F)

Operation

The flow indicator consists of a sharp edged orifice and tapered metering piston. The piston movement is directly proportional to the flow rate and the sharp edge orifice minimises the effects of viscosity. The piston is magnetically coupled to the rotary pointer assembly which registers on a clear 63 mm (2 1/2”) scale displayed in L/min and US gpm. Flow indicators should not be installed in circuits where the flow is reversed.

Calibration

All Flow Indicators are calibrated at a mean viscosity of 28cSt using ISO32 hydraulic mineral oil to ISO11158 category HM. Calibration certificates are available on request - this is a chargeable option. Other calibration on request - please consult sales office.

Installation

The unit can be installed in any position, horizontal, vertical or anywhere in between. The unit is designed to panel mount or pipe mount. When panel mounting ensure that rear and bottom faces of the unit are at least 12 mm (1/2”) from any ferrous material such as an iron panel or base. The piston contains a magnet that can be affected by close proximity of ferrous material. The front face can be mounted directly to ferrous panels.

The indicator can be connected into pressure or return lines, however, do not reverse flow; the flow indicator may be damaged and will act as a non return valve.

All hydraulic connections should be made by suitably trained personnel.

Accessories

Pressure gauge fitted directly into block or remotely connected by micro bore hose, see pressure gauge bulletin.