

# VFF Flow Meter and FlowPod



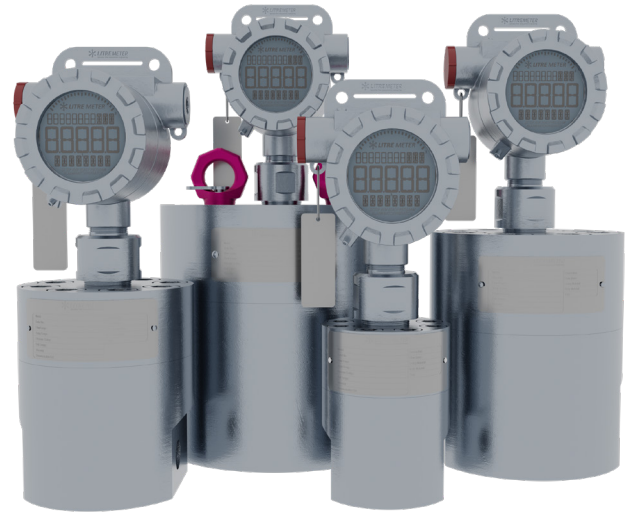
# LITRE METER

Specialist flow measurement engineering

## COMMON USES

The VFF Flow Meter was designed for use in Chemical Injection applications or those that require high pressure tolerance, low flow capabilities, and corrosion resistance. VFF meters are available in a wide range of flow rates; as low as 0.008 L/hr up to 2400 L/hr. Practical applications include:

- Offshore Chemical Injection
- Hydraulic line monitoring for well control valves and leak detection
- Wash water measurement and general metering of low and high viscosity fluids
- Subsea Chemical Injection and hydraulic fluid measurement



## TECHNICAL SPECIFICATIONS

8 Sizes	0 – 18 L/hr up to 0 – 2400 L/hr
Measuring Accuracy	±1.0% of reading
Linearity	±0.5% of reading
Repeatability	±0.1% of reading
Viscosity	0.5 – 100,000 cSt or greater
Max. Operating Pressure	1035 bar as standard (higher on request)
Temperature Rating	-40°C to 75°C (up to 100°C with remote mount display)
Filtration	40 micron for LF03 and LF05; 100 micron for all other meter sizes
Connections	NPT and Autoclave Medium Pressure as standard (others on request)

## MATERIALS OF CONSTRUCTION

Body	316L Stainless Steel (other materials on request)
Rotor	Ultra low friction PVD coated Titanium (Nitronic-60 for MF/VFF/HF range)
Pressure Balance Chamber	Ultra low friction PVD coated Nitronic-60
Seals	FEP Encapsulated FKM – Inconel for pressure above 690 bar (others on request)

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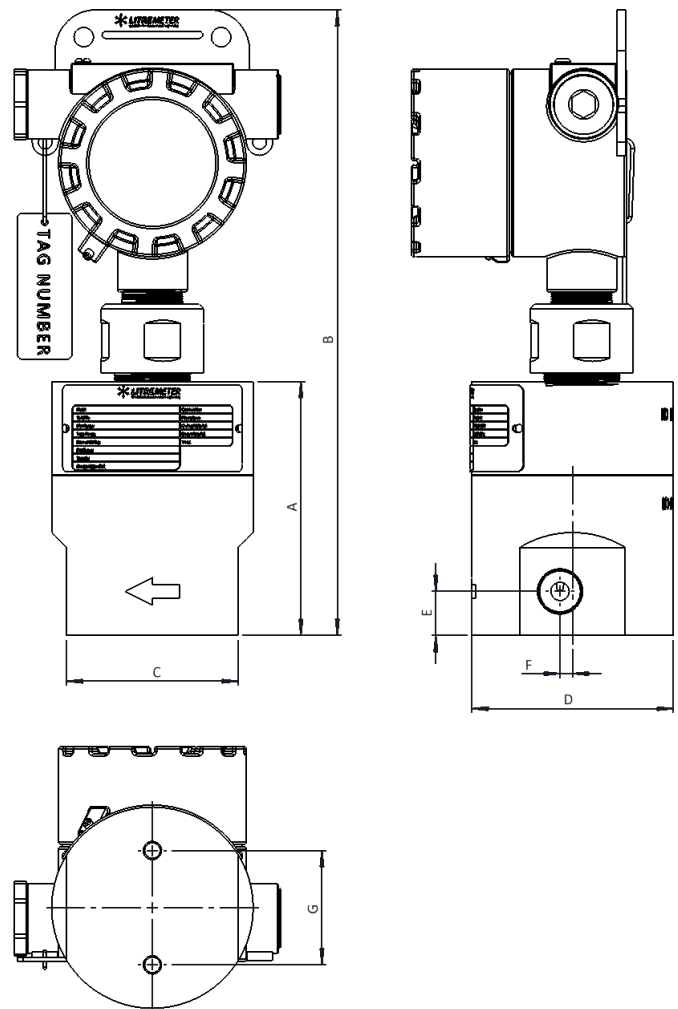
## METER DATA

Meter Size	Flow Range		Process Connection		Max Pressure (bar/psi)	Seal Material Wetted/Pressure	Filtration (microns)
	Min (L/hr)	Max (L/hr)	NPT	Autoclave Medium Pressure			
LF03	0.038	18	1/2"	9/16"	1035/15,000	FEP Encapsulated FKM	40
LF05	0.063	30	1/2"	9/16"	1035/15,000	FEP Encapsulated FKM	40
LF15	0.525	90	1/2"	9/16"	1035/15,000	FEP Encapsulated FKM	100
MF30	1.05	150	1/2"	9/16"	1035/15,000	FEP Encapsulated FKM	100
VFF4	1.95	400	1/2"	9/16"	1035/15,000	FEP Encapsulated FKM	100
VFF8	3.9	800	1/2"	9/16"	1035/15,000	FEP Encapsulated FKM	100
HF20	9.75	1200	3/4"	3/4"	1035/15,000	FEP Encapsulated FKM	100
HF40	19.5	2400	3/4"	3/4"	1035/15,000	FEP Encapsulated FKM	100
Minimum flow will vary with viscosity		Other connections available on request		Higher pressures on request		Inconel is used for pressures greater than 690 bar - other materials on request	

\*Ultra-Low Flow custom calibration available on request.

## METER DIMENSIONS

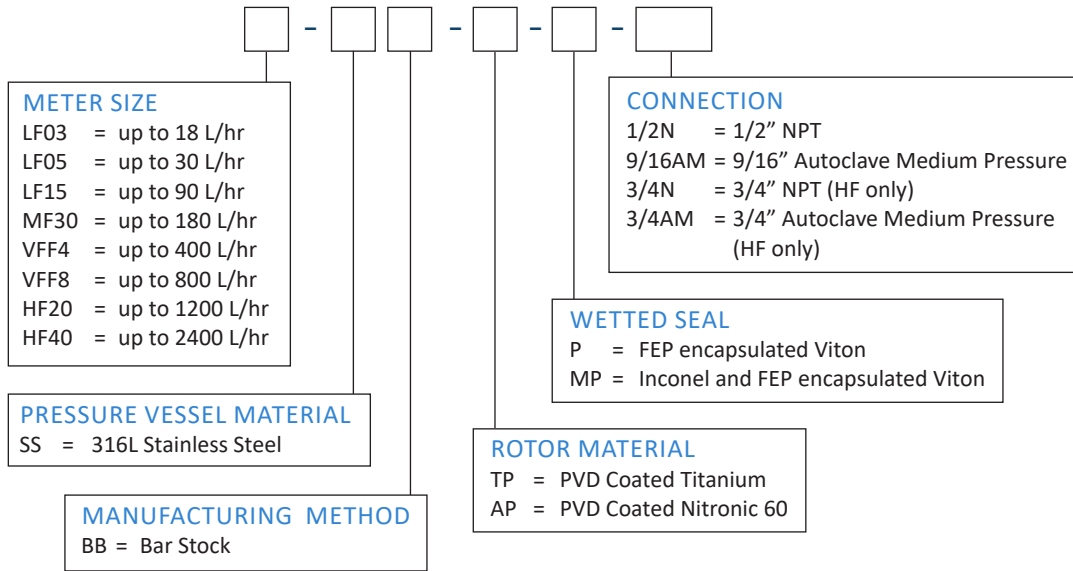
Meter Size	Dimensions (mm)							Weights	
	A±2	B±5	C	D	E	F	G (mounting holes)	(Kg)	(Lbs)
LF03	111	274	75	88	19.25	5.5	50	7	15
LF05	111	274	75	88	19.25	5.5	50	7	15
LF15	111	274	75	88	19.25	5.5	50	7	15
MF30	137	300	100	120	22.5	8	50	12	26
VFF4	165	328	128	144	28.5	7.5	80	18	40
VFF8	165	328	128	144	28.5	7.5	80	18	40
HF20	189	352	175	195	30	18	100	45	100
HF40	189	352	175	195	30	18	100	45	100



3D STEP Models are available upon request of factory.  
Products may be subject to change without notice. Contact factory for the most up-to-date product information.

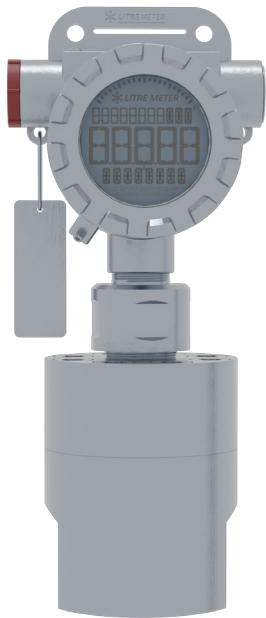
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## PART NUMBER GUIDE (Example: LF03-SSBB-TP-P-1/2N)



## FLOWPOD DISPLAY

FlowPod Display comes in a compact, light-weight, flame-proof 316 housing. The FlowPod also offers HART 7, IP66/IP68 rating, removable memory card, and back-lit display with high contrast and large digits for easy reading from a distance.



## FLOWPOD OPTIONS

FLOWPOD OPTION CODES				
Instrument	Output	Sensor	Enclosure	Approval
FlowPod	H	RS	E1 E2	2Exd 4Exd

ENCLOSURE OPTIONS	
Code	Side Entry
E1	3/4" NPT with 316SS Exd blanking plug
E2	M20 with 316SS Exd blanking plug

OUTPUT & APPROVAL OPTIONS	
Code	Approval
2Exd	2-wire loop powered HART Exd. ATEX, IECEx & CSA-US
4Exd	4-wire HART Exd. ATEX, IECEx, & CSA-US

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