

Technical Datasheet



VFF Flow Meter

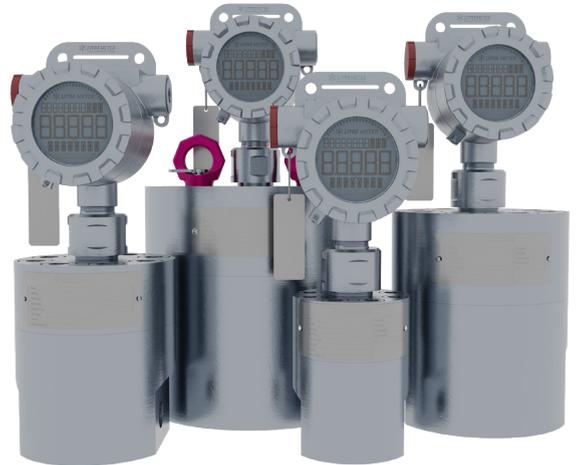
with HART and Exd Certification

VFF Flow Meter

VFF Flow Meter

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

Sizes	0 – 18 L/hr up to 0 – 2400 L/hr
Accuracy	±1.0% of measured value.
Linearity	±0.5%
Repeatability	±0.1%
Viscosity	0.5 - 100,000 cSt or greater
Max. Operating Pressure	Up to 15,008 psi (1035 bar) as standard (higher on request)
Temperature	As low as -40 °F (-40 °C) to 167 °F (75 °C) (up to 212 °F (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

Housing	AISI 316L (DIN 1.4404)
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 10,007 psi (690 bar)

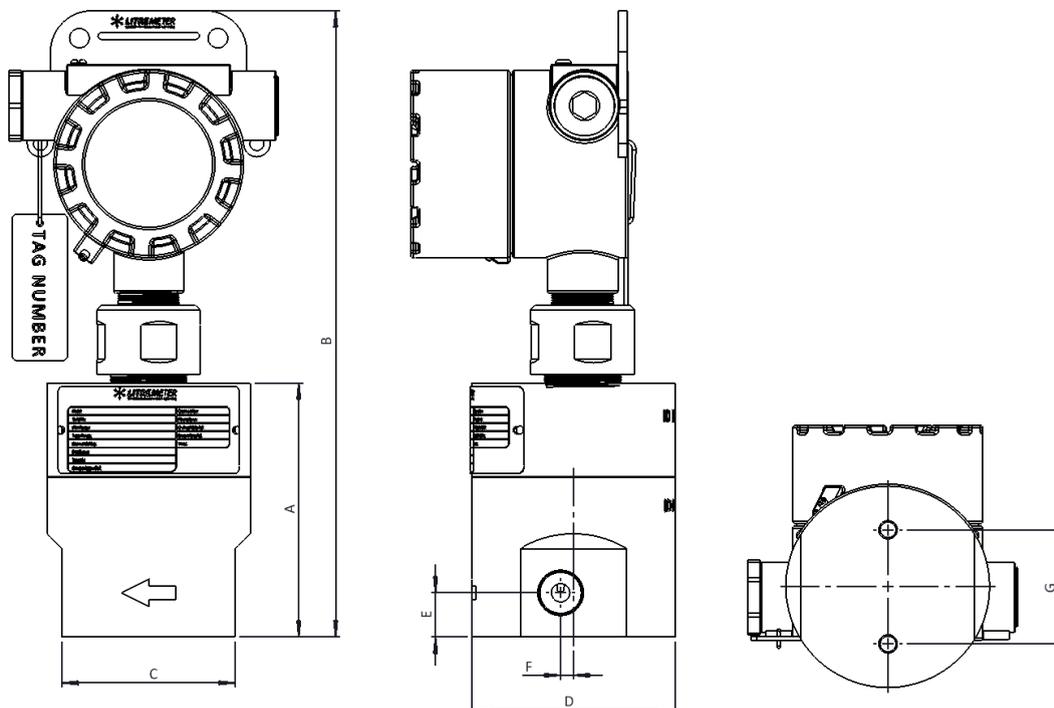
Meter Data

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	180	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

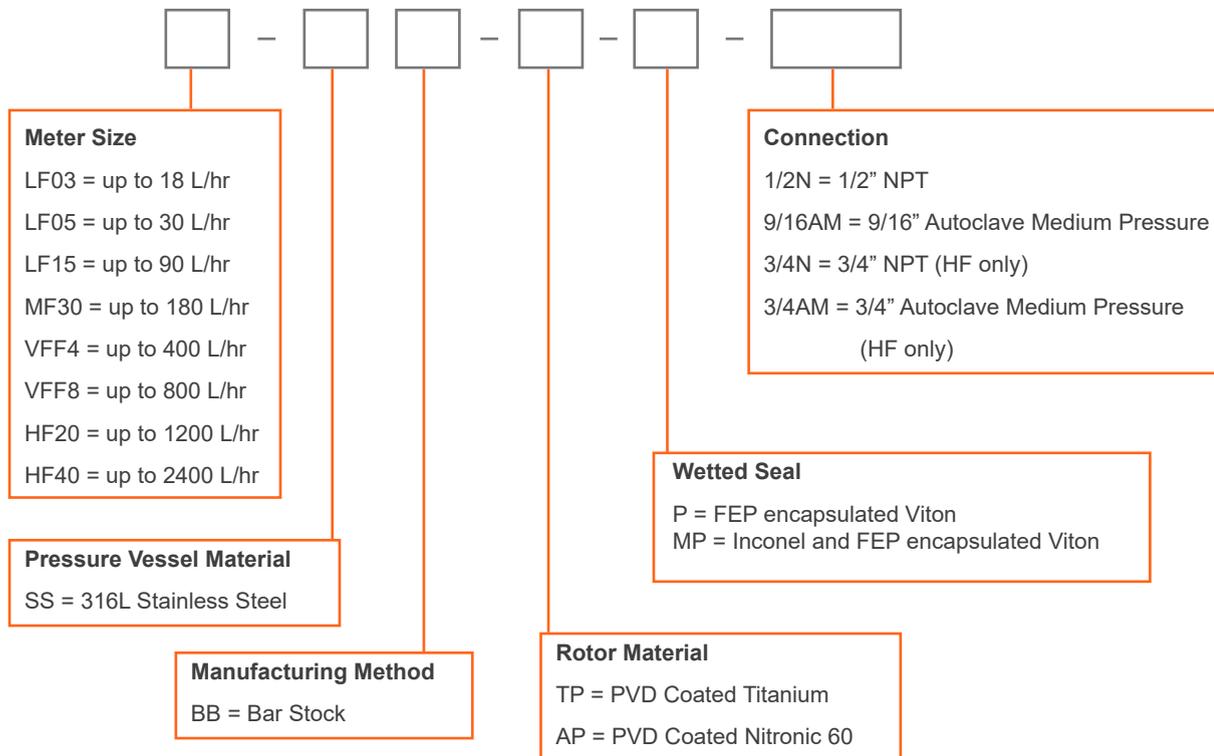
Meter Size	Dimensions (mm)							Weights	
	A±2	B±5	C	D	E	F	G	(Kg)	(Lbs)
LF03	111	274	75	88	19.25	5.5	50	7	15
LF05	111	274	75	88	19.25	5.5	50	7	15
LF15	111	274	75	88	19.25	5.5	50	7	15
MF30	137	300	100	120	22.5	8	50	12	26
VFF4	165	328	128	144	28.5	7.5	80	18	40
VFF8	165	328	128	144	28.5	7.5	80	18	40
HF20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



VFF Flow Meter

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	2Exd
			E2	4Exd
Enclosure Options				
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 H			
4Exd	4-wire HART Exd. ATEX, IECEX, & CSA-US			

Products may be subject to change without notice. Contact factory for the most up-to-date product information.

KEM Headquarters

Liebigstraße 5
85757 Karlsfeld
Germany

T. +49 8131 59391-0
F. +49 8131 92604

info@kem-kueppers.com

KEM Manufacturing Center

Wetzeller Straße 22
93444 Bad Kötzing
Germany

T. +49 9941 9423-0
F. +49 9941 9423-23

production@kem-kueppers.com

KEM Sales

Liebigstraße 5
85757 Karlsfeld
Germany

T. +49 8131 59391-100
F. +49 8131 92604

sales@kem-kueppers.com

KEM Service & Repairs

Wetzeller Straße 22
93444 Bad Kötzing
Germany

T. +49 9941 9423-37
F. +49 9941 9423-24

service@kem-kueppers.com

More distributors & partners can be found at:
www.kem-kueppers.com