

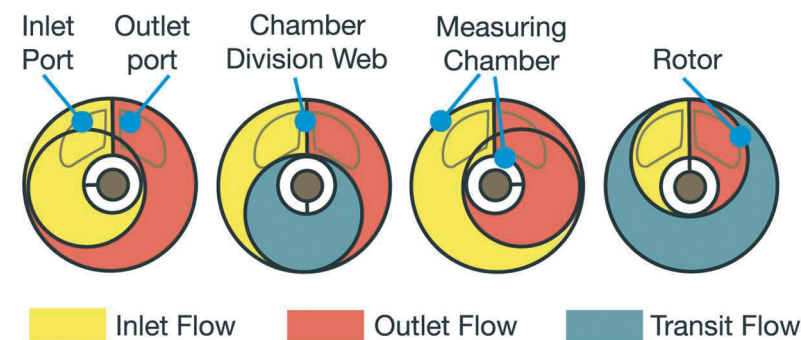
# VFF Rotary Piston Positive displacement flowmeters

## VFF Rotary Piston Positive displacement flowmeters

The VFF has successfully metered for over 25 years fluids such as oils, hydraulic fluids, corrosion/wax/scale/hydrate inhibitors, biocides, oxygen scavengers, etc. Meter bodies are produced in 316 stainless steel which offers good chemical and environmental resistance. For tougher applications titanium, super duplex and Inconel are offered.

Applications for flow-rates as low 0.00013 litre/min (0.19 litres/day) have been metered within the off-shore oil industry. The meters exhibit exceptional rangeability with a turndown of 3000:1 achieved for just moderately viscous corrosion inhibitor. The rotor size determines the meter flow-range. The smallest standard stock size offers up to 0.7L/min and the largest up to 270 L/min. Higher flow-rate meters can be provided to special order.

An extensive range of meter construction offers pressure ratings from 0 to 414 bar suitable for most industrial applications and higher pressure rating designs are manufactured up to 4000 bar.



## F-Pod Exd, Instrument

- Display of rate and total
- Analogue and scaled pulse outputs
- HART, Foundation Fieldbus, MODBUS, RS232, RS485 communication
- Flow alarms
- Enclosure rated to IP66 and others suitable for sub-sea applications, stainless steel option
- Hazardous Area approved for Exd, ATEX, FM, UL, INMETRO, IECEx
- DC power supply
- Linearisation
- Pipe, wall, head and panel mounting options








## F118 Exi Instrument

- Display of flow rate and total
- Analogue and scaled pulse outputs
- RS232, RS485 and Modbus
- Flow alarms
- Temperature and pressure compensation
- Enclosure rated up to IP67 and alternatives suitable for sub-sea applications
- Hazardous area approved for Exi
- AC, DC or battery power supply options
- Linearisation
- Printer outputs
- Pipe, wall, head and panel mounting options



# VFF Rotary Piston Positive Displacement Flow Meters

	Description	Flow range & Accuracy	Fluids	Features		Description	Flow range & Accuracy	Fluids	Features
	316L stainless steel bodied meter with 1/2" NPT female threaded connections, Nitronic SS, brass or carbon rotor dependent on pressure and flow rate range. 414 bar standard, available for pressures up to 4000bar and temperature from -40 to +150°C.	<b>LF15:</b> 0.010 to 40 l/hr. Minimum subject to fluid viscosity. eg 0.2 to 90 l/hour at 10 cSt +/- 1% of actual reading. 0 - 90 l/hr available with AGPVD option <b>LF05:</b> 0.008 to 30 l/hr. Minimum subject to fluid viscosity. eg 0.08 to 30 l/hour at 2.5 cSt +/- 1% of actual reading. Fitted with TiPVD rotor as standard	Any non abrasive, chemically compatible liquid. Filtration of 100 micron recommended.	Simple construction with only one moving part and reed switch pulse output. Available with any end connections to suit your application including; NPT, BSP, SAE, API, Grayloc hub, AEMP, AEHP, ANSI flanges.		316L stainless steel bodied meter supplied with 3/4", 1" or 1.5" NPT female process connections, Nitronic SS, brass or carbon rotor dependent on pressure and flow rate range. 110 bar standard, available for pressures up to 1380bar and temperature from -40 to +150°C.	Meter Min l/min Max l/min HF20 0.06 20.00 HF40 0.11 40.00 HF60 0.30 60.00 HF66 0.16 66.00  Minimum subject to fluid viscosity. +/- 1% of actual reading.  Above Max l/hr values double with AGPVD option.	Any non abrasive, chemical compatible liquid with viscosities up to 2,000cSt or greater.	Simple construction with only one moving part and reed switch pulse output. Available with any end connections to suit your application including; NPT, BSP, SAE, API, Grayloc hub, AEMP, AEHP, ANSI flanges.
	316L stainless steel bodied meter with 1/2" NPT female threaded connections, Nitronic SS, brass or carbon rotor dependent on pressure and flow rate range. 207 bar standard, available for pressures up to 4000bar and temperature from -40 to +150°C.	0.1 to 90 l/hr. Minimum subject to fluid viscosity. +/- 1% of actual reading.  0 - 180 l/hr available with AGPVD option.	Any non abrasive, chemical compatible liquid. Filtration of 100 micron recommended.	Simple construction with only one moving part and reed switch pulse output. Available with any end connections to suit your application including; NPT, BSP, SAE, API, Grayloc hub, AEMP, AEHP, ANSI flanges.		316L stainless steel bodied meter supplied with 2" NPT female process connections. Rotor can be supplied in Nitronic SS, brass or carbon dependent on application. 40 bar. High pressure versions available with connections to suit.	Meter Min l/min Max l/min V125 8.30 100 V160 11.70 128 V270 25.00 270  Minimum subject to fluid viscosity. +/- 1% of actual reading.  Above Max l/min values double with AGPVD option.	Any non abrasive, chemical compatible liquid with viscosities up to 2,000cSt or greater.	Simple construction with only one moving part and reed switch pulse output. Available with any end connections to suit your application including; NPT, BSP, SAE, API, Grayloc hub, AEMP, AEHP, ANSI flanges.
	316L stainless steel bodied meter with 1/2" NPT female threaded connections, Nitronic SS, brass or carbon rotor dependent on pressure and flow rate range. 110 bar standard, available for pressures up to 2500bar and temperature from -40 to +150°C.	Meter Min l/hr Max l/hr VFF4 0.72 240 VFF8 1.3 480  Minimum subject to fluid viscosity. +/- 1% of actual reading.  Above Max l/hr values double with AGPVD option.	Any non abrasive, chemical compatible liquid. Filtration of 100 micron recommended.	Simple construction with only one moving part and reed switch pulse output. Available with any end connections to suit your application including; NPT, BSP, SAE, API, Grayloc hub, AEMP, AEHP, ANSI flanges.	<div data-bbox="1344 1157 2184 1284" style="border: 1px solid black; padding: 5px;"> <p><b>Calibration Options</b> A calibration certificate is provided based on a representative viscosity fluid for the application. The calibration certificate confirms the flowmeter accuracy. Improved system accuracy can be provided typically to ±0.5% of actual reading where the linearisation signal processing facility of the display instrument is employed.</p> </div> <div data-bbox="1344 1292 2184 1380" style="border: 1px solid black; padding: 5px;"> <p><b>Aggressive Fluids</b> Alternative materials such as titanium, duplex, super duplex and 17-4 PH steel are available for special applications</p> </div> <div data-bbox="1344 1388 2184 1476" style="border: 1px solid black; padding: 5px;"> <p><b>Output Options</b> The meter provides an unscaled pulse output. Signal conditioners, flow indicators and batching instruments are also available from Litre Meter for use with these meters.</p> </div>				

These products conform to PED and EMC and optionally to ATEX/UL/FM/IECEX/INMETRO