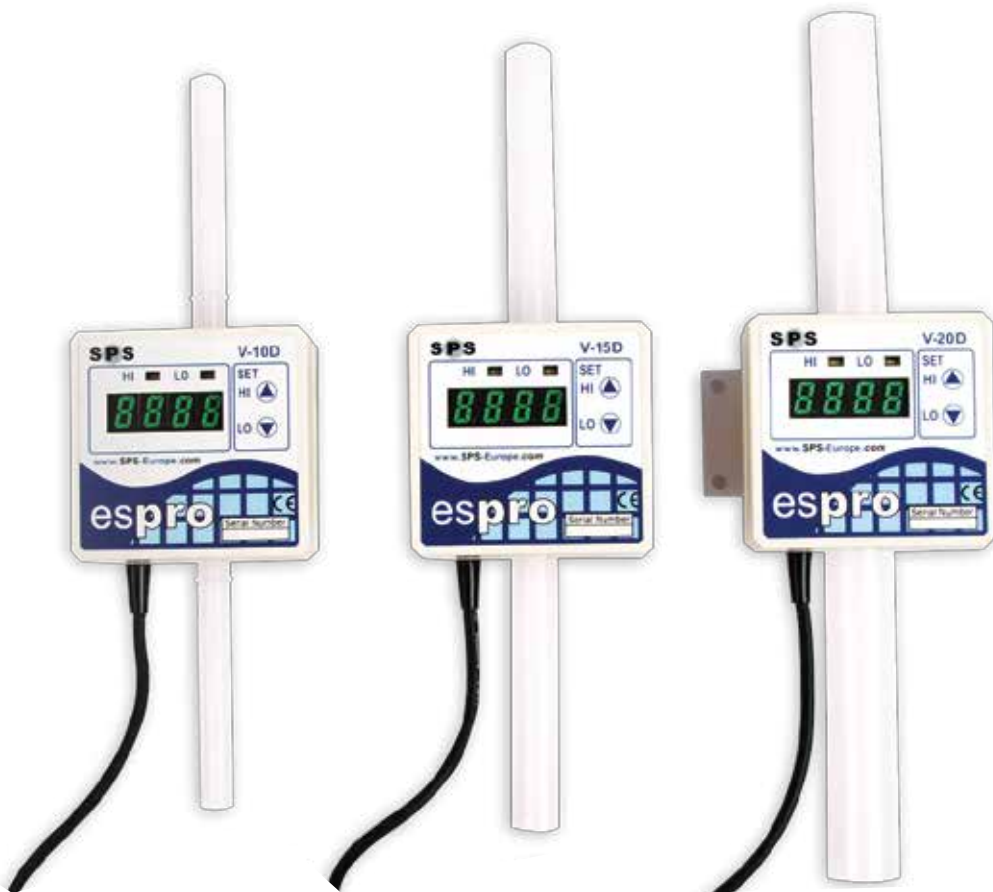


espro



www.esproflow.com

espro V-xx Series Vortex style Flowmeters

The eSPro flow meters are designed for contact-free precision flow measurement of high purity fluids. The ultra-pure PFA body contains no moving parts, eliminating any possibility for particle generation.

The eSPro flowmeter uses a non-contact ultrasonic sensor method, that detects the Karman vortex in your fluid. Light weight and compact, the eSPro flow meters compact design allows fitting on closely-spaced parallel piping.

D-series are equipped with a small monitor and provide analog output, pulse output as well as high & low boundary output.

KEY FEATURES

- Because PFA Flowmeters measure Karman Vortices using a non contact ultrasonic sensor method, they contain no moving parts such as flippers & floats, thus eliminating particle generation.
- High and Low alarm boundaries can be set to any level using selector keys.
- Light weight and compact, eSPro flowmeters are simple to install.
- Monitor attached series (V-xxD) and monitor unattached series (V-xx) are available depending on application.



NOTE: These flowmeters are complete flowmeters with tubes, and have to be installed by cutting out existing tube section and the installing the tube/flowmeter assembly.

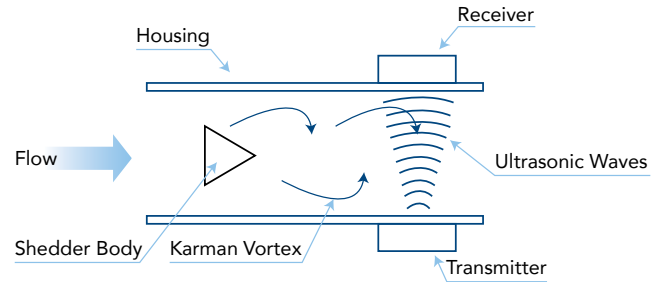
		V-10 - V-10D*	V-15 - V-15D*
Available fluid		Fluids not corrosive or permeable against fluorocarbon resin. (Please contact us for your operating fluids.)	
Flowmeter Range		0.5 - 3.5 l/min	1 - 16.0 l/min
Indicating Flow Rate		0.0 - 4.0 l/min	0.0 - 18.0 l/min
Measurement Accuracy		±5% F.S	±2.5% F.S
Operating Environmental Temperature		5 - 60°C	5 - 60°C
Operating Fluid Temperature		5 - 85°C	5 - 85°C
Fluid Pressure		Max.800kPa (25°C)	
Tube Diameter		Ø9.53×Ø6.35 mm 3/8 inch	Ø12.7×Ø9.53 mm 1/2 inch
Wetted Parts mm/inch		PFA	
Mounting Positions		Horizontal, Vertical or Diagonal (Not vertical in drop position)	
Analog Output	Output	DC4 - 20mA	
	Load Resistance	500Ω or Less	
Pulse Output	Output	NPN Open collector	
	Excitation Voltage/Current	Max.DC30V/80mA	
	Pulse Unit	10ml/P	
	Pulse Range	5mS	
High&Low boundary Output	Output	NPN Open collector	
	Excitation Voltage/Current	Max.DC30V/80mA	
	LED indication	LO turns off: less than Low boundary * HI, LO turns on : within High & Low boundary * HI turns off: more than High boundary	
Power Supply		DC24V ±10%	
Current Consumption		120mA or Less	
Cable		2m	
CE marking approval		o	o

* D-series are equipped with a small monitor and provide analog output, pulse output as well as high & low boundary output.

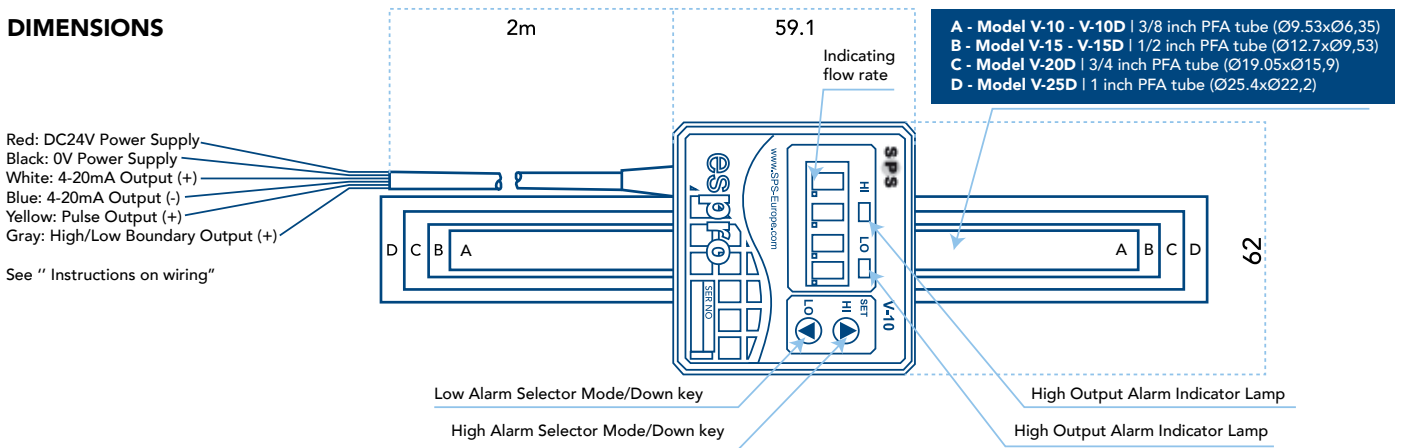
PRINCIPLE OF OPERATION

If a fluid flows past a shedder body, a regular pattern of vortices called Karman Vortex street alternately trails aft in the wake. The ultrasonic wave oscillating time varies proportional to the vortex shedding frequency. We can obtain the measured flow by detecting any changes in ultrasonic wave oscillating time.

The number of generated vortices is depending on the flow speed only and independent on other parameters as viscosity or specific gravity of the fluid.

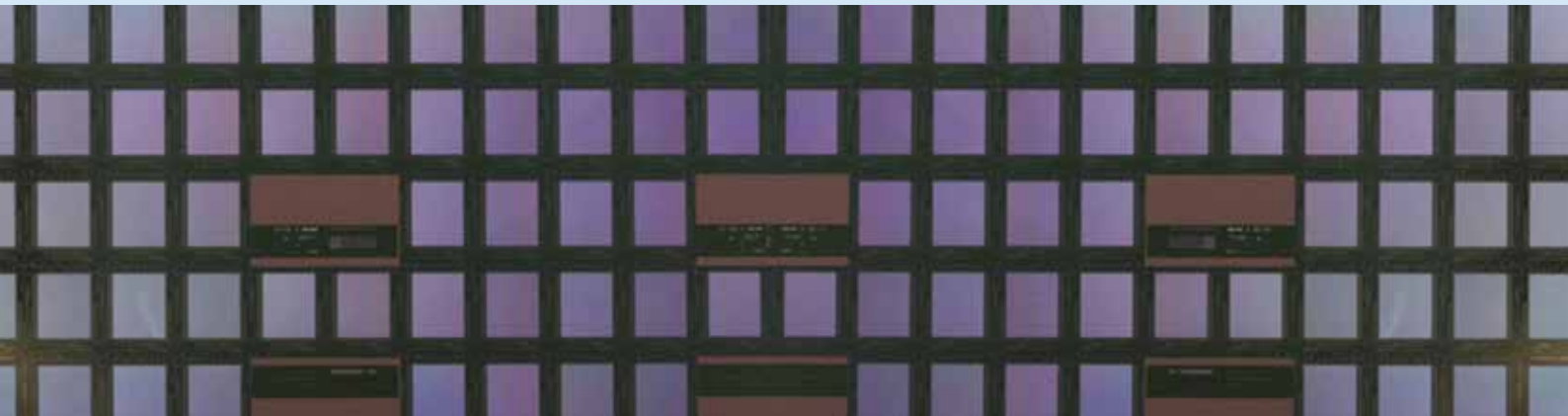


DIMENSIONS



		V-20D*	V-25D*
Available fluid		Fluids not corrosive or permeable against fluorocarbon resin. (Please contact us for your operating fluids.)	
Flowmeter Range		2.0 - 40.0 l/min	5.0 - 130.0 l/min
Indicating Flow Rate		0.0 - 44.0 l/min	0.0 - 145.0 l/min
Measurement Accuracy		±1.5% F.S (at 25°C)	±2.5% F.S (at 25°C)
Operating Environmental Temperature		5 - 60°C	5 - 60°C
Operating Fluid Temperature		5 - 85°C	5 - 85°C
Fluid Pressure		Max.600kPa (25°C)	Max.450kPa (25°C)
Tube Diameter mm/inch		Ø19.05xØ15.9 mm 3/4 inch	Ø25.4xØ22.2 mm 1 inch
Wetted Parts		PFA	
Mounting Positions		Horizontal, Vertical or Diagonal (Not vertical in drop position)	
Analog Output	Output	DC4 - 20mA	
	Load Resistance	500Ω or Less	
Pulse Output	Output	NPN Open collector	
	Excitation Voltage/Current	Max.DC30V/80mA	
	Pulse Unit	10mr/P	100mr/P
	Pulse Range	5mS	
High&Low boundary Output	Output	NPN Open collector	
	Excitation Voltage/Current	Max.DC30V/80mA	
	LED indication	LO turns off: less than Low boundary * HI, LO turns on : within High & Low boundary * HI turns off: more than High boundary	
Power Supply		DC24V ±10%	
Current Consumption		120mA or Less	
Cable		2m	
CE marking approval		o	o

* D-series are equipped with a small monitor and provide analog output, pulse output as well as high & low boundary output.



25 years of Quality Service and Products

For over 25 years SPS Europe has offered quality products and services as a one-stop shoppingpoint for front-end semiconductor manufacturers and related industries. We supply a range of industry leading products used worldwide for Wafer Handling, Wet Processing, Photolithography, OEM Replacement parts and the Solar industry. Dedication towards our customers and flexibility in finding the right solution, combined with solid application knowledge and fast supply logistics, are the keywords of our service. SPS-Europe is a full-service distributor with dedicated engineering support for all our products.

EUROPE:

● SPS-Europe B.V.

Midden Engweg 41
NL-3882 TS Putten
The Netherlands
Tel.: (31) 341 360 590
Fax: (31) 341 360 589
e-mail: info@sps-europe.com

● SPS- Europe GmbH

Weisbergerstrasse 3
D-85053 Ingolstadt
Germany
Tel.: (49) 841 370 530
Fax: (49) 841 370 5322
e-mail: info.de@sps-europe.com

● S.P.S. . Ltd.

Aghmhor Annex
Whitmuir, Selkirk
TD7 4PZ United Kingdom
Tel.: (44) 1750 725 712
Fax: (44) 1750 214 01
email: info.uk@sps-europe.com

● S.P.S. bvba

Steenweg op Withof 5
B -2960 St. Job in 't Goor
Belgium
Tel.: (32) 3 440 0895
Fax: (32) 3 440 5181
e-mail: info.be@sps-europe.com

● S.P.S. bvba

9, Rue du Pont à Lunettes
F-69390 Vourles
France
Tel.: (33) 4 72 31 78 35
Fax: (33) 4 78 05 13 45
e-mail: info.fr@sps-europe.com

● S.P.S. bvba

Via G. Verdi 18b
27021 Bereguardo
Italy
Tel.: (39) 0 382 920 739
Fax: (39) 0 382 920 738
e-mail: info.it@sps-europe.com

ASIA:

● SPS - Asia Technology Pte Ltd.

10 Ubi Crescent, Ubi Techpark,
Lobby B, #06-18 Singapore 408564
Tel.: (65) 6593 4318 Mob: (65) 9113 0172
e-mail: info@sps-asia.com



www.sps-europe.com

www.sps-asia.com