V-F SERIES

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INLINE LIQUID AND GAS FLOW SWITCHES

- Factory set to your specifications
- Only one moving part
- Compact inline design
- Low pressure drop
- Corrosion resistant materials
- Safety Integrity Level (SIL 3) Safety Capable

UE PRECISION SENSORS

V-F SERIES

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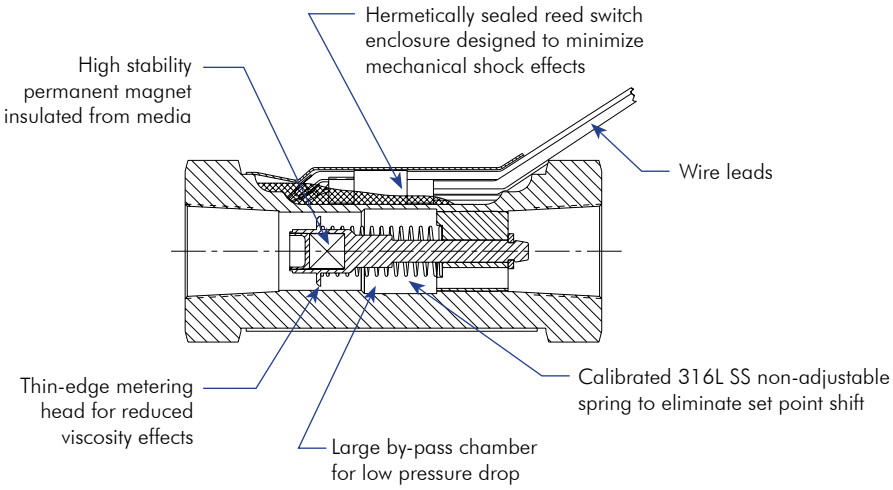
OVERVIEW

The VF series flow switches contain only one moving part which results in an extremely reliable option for flow sensing applications. All VF series are SIL 3 capable and can be configured for use with gas or liquid media. The flow switches utilize an internal float and magnet assembly that is displaced upon fluid flow, the displacement of the magnetic field relative to an externally fixed reed switch results in opening or closing of the electrical contacts. The inline construction and availability in various end fittings simplifies integration of these products.

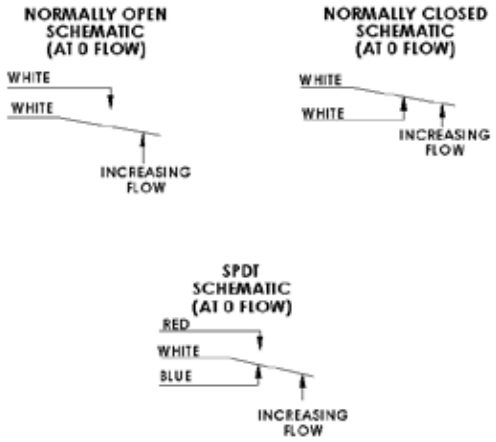
The VF series flow switches have been utilized extensively in semiconductor, agricultural and medical applications.

All products comply with European safety requirements, bear the CE part mark and are UL recognized under file number E 179859.

FEATURES



WIRING SCHEMATIC



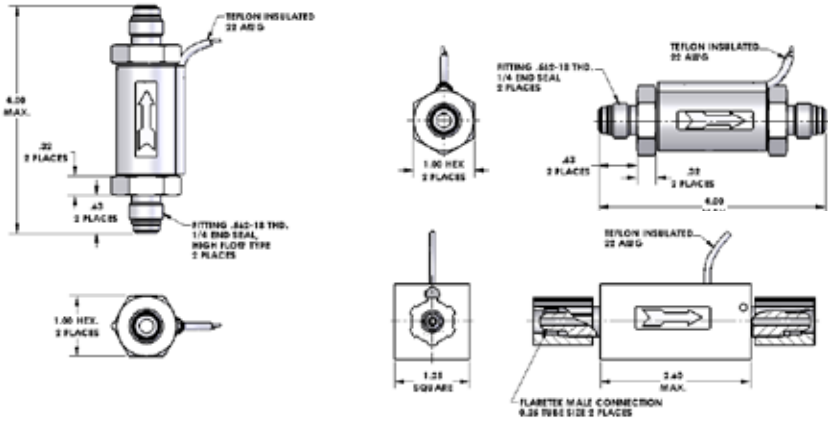
All of the V-F series flow switches are now SIL Certified to IEC 61508 and ISO 13849 standards. These standards define functional safety standards that are applicable to various industries including the semiconductor market. The certification requires a rigorous product evaluation to ensure the product meets its intended function with the highest levels of reliability. The independent certification process included items such as:

- Detailed Failure Modes, Effects, and Diagnostics Analysis (FMEDA)
- Audit of field failure data to confirm the accuracy of the FMEDA analysis
- Audit of Design and Development process
- Verification activities and documentation
- Quality System
- Acceptance Test Procedures
- Life Cycle Data

Learn more by watching our Functional Safety video located at https://precisionsensors.com/all-products/vf-series-flow-switch/

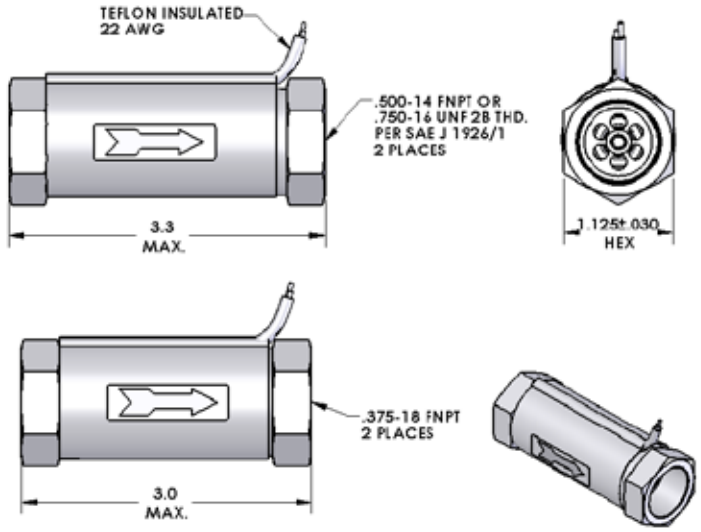
V8F SERIES (GAS AND LIQUID)

V8F's are impervious to harsh chemicals due to their stainless steel or high purity engineering plastics construction. An inline design and availability with various end fittings simplifies integration of these flow switches. Switches can be specified for horizontal or vertical mounting.



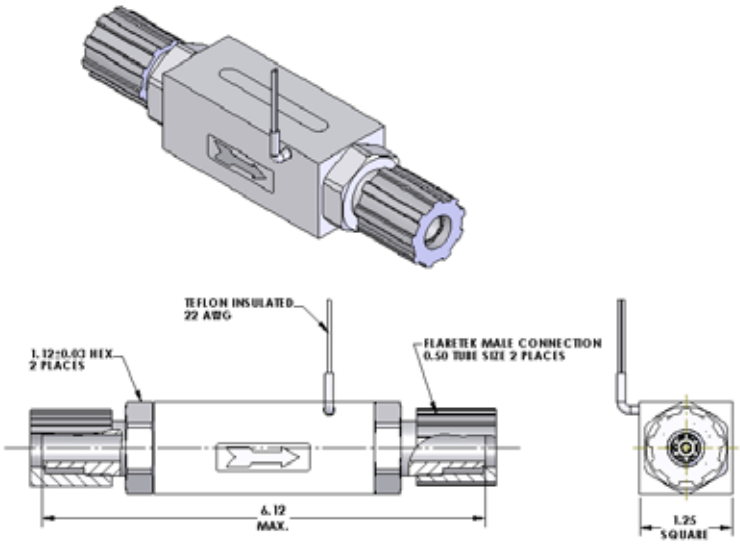
V12F SERIES (LIQUID)

In applications with maximum system flows well above the desired set point, these flow switches offer a large diameter bypass bore that reduces the pressure drop after switch actuation has occurred.



V13F SERIES (LIQUID)

The V13F offers inline construction to simplify installation and integration while the PTFE and PFA wetted surfaces offer resistance to the harsh chemicals found in wet process applications.



SPECIFICATIONS				
Product Series	**V12F (liquid)**	**V8F (liquid)**	**V8F (gas)**	**V13F (liquid)**
Available Settings	0.15 to 7.0 GPM	0.02 to 1.25 GPM	0.02 to 3.5 SCFM	1.00 to 7.50 GPM
Deadband	0.15 to 0.5 GPM	10% of Setting	10% of Setting	10% of Setting
Repeatability	0.05 to 0.15 GPM	5% of Setting	5% of Setting	5% of Setting
***Proof Pressure**	Material Dependent	Material Dependent	1.5X Operating Pressure	50 PSIG
Operating Temp. Range	40° to 125° F (consult factory for higher temps)	40° to 125° F (consult factory for higher temps)	40° to 125° F (consult factory for higher temps)	40° to 125° F (consult factory for higher temps)
Finish	Material Dependent	Material Dependent	Material Dependent	Material Dependent
Media Type	Liquid	Liquid	Gas	Liquid
Wetted Materials	Stainless Steel, PVC, PFA	Stainless Steel, PTFE, PFA	Stainless Steel	PTFE, PFA, KALREZ and FEP coated S.S
Media Connections	3/8" & 1/2" NPT, Compression, SAE J1926/1	1/4", 3/8", 1/2" Flare Type, Compression	1/4", 3/8", 1/2" End Seal type	3/8", 1/2", 3/4" & 1" Flare Type
Electrical Connections	Free Leads	Free Leads	Free Leads	Free Leads
Crimp Type Connector	Amp Type or customer specified	Amp Type or customer specified	Amp Type or customer specified	Amp Type or customer specified
Approvals	UL, CE, ISO 13849	UL, CE, ISO 13849	UL, CE, ISO 13849	CE, ISO 13849, UL (electrical switch)
Safety Integrity Level	SIL 3 Capable	SIL 3 Capable	SIL 3 Capable	SIL 3 Capable
Warranty	18 Months	18 Months	18 Months	18 Months

* Specification are subject to change. Please consult factory for current specification or custom part configurations.

How To Order

*Sample

Model	V8F, V12F, V13F						V8F
Material	SS = Stainless Steel (V12F, V8F gas only)		PVC = PVC (V12F only)		T = Teflon (V13F and V8F liquid only)		SS
Setting	Media: W = Water, A = Air, O = Other						O
	Actuation: I = Increasing flow, D = Decreasing flow						I
	Setting: Enter the setting in gpm or slpm						2 slpm
Fitting Type	J = SAE J1926/1 (V12F only)	6P = 3/8" FNPT (V12F only)	8P = 1/2" FNPT (V12F only)	V = 1/4" End seal type	C = Compression type (V8F gas and V12F only)	F = Flare type (specify size)	V
Electrical	**Contact Position:** NC = Normally closed at 0 flow, NO = Normally open at 0 flow						NO
	Lead Length: Enter Lead Length (24" standard)						24
	Electrical Interface: L = Free Leads, C = Crimp Type Connector						C = Amp type

*The above configuration is for a stainlesss steel V8F gas flow switch for use with air. The unit is NO and is calibrated for 2 slpm on increasing flow and has an Amp type connector with 24" wire leads.

UNITED ELECTRIC CONTROLS

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