



# Pneumatic and Electro-Pneumatic Positioners



# Model V Series

# Model V Series

## Pneumatic & Electro-Pneumatic Positioners

True Modularity • Universal Mounting • Field Upgradeable • Encapsulated Electronics  
Corrosion-Resistant Housing • Hazardous Location Models

**Very best components.** Count on trouble-free, economical operation from every V Series model.

**Very best performance.** Truly modular and truly upgradeable in the field, the beauty of the V series is summed up in one word—*simplicity!*

**Very best reliability.** Dust tight. Water tight. Vibration resistant. Corrosion resistant. NEMA-standard composite enclosures. Whatever the application, Model V positioners pass the test with flying colors.

### **Very best flexibility.**

The V Series universal mounting adapts to practically every quarter-turn actuator. **Very best precision.**

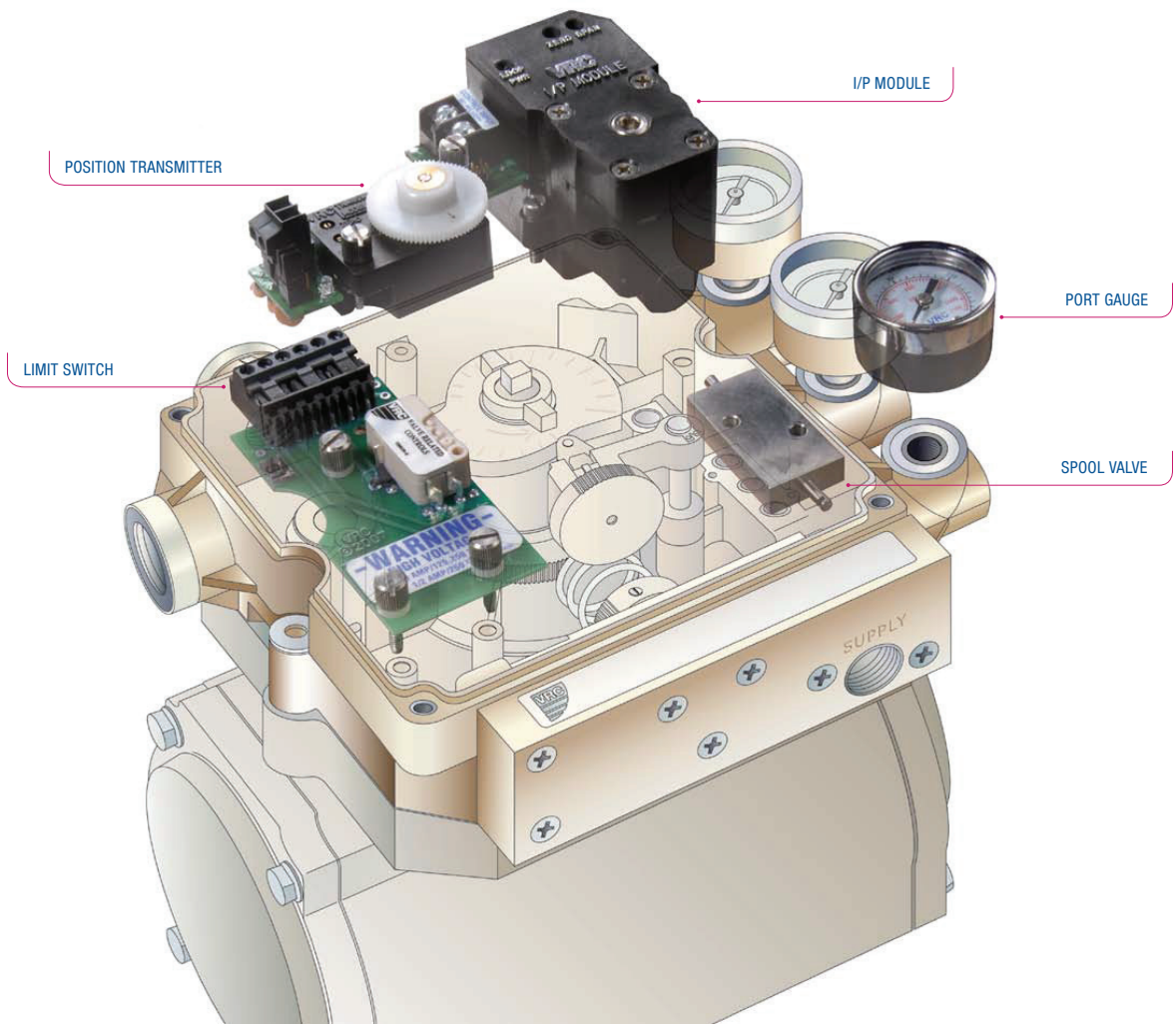
The V Series affords precise, accurate mechanical calibration with Click-Lock™, an Air-Con exclusive! The result—accuracy and ease of adjustment.

### **Very best I/P conversion.**

The V Series ensures instantaneous automatic compensation for supply pressure, atmospheric pressure and ambient temperature changes...

**standard!** **Very best safety.** Air-Con's exclusive **Model VI** incorporates a FM-, CSA- and Cenelec-approved converter that delivers safe, non-incendive service in both hazardous and general-purpose locations.

## Very best.



## models

*Air-Con provides a complete range of models suited to a variety of applications.*

The Model V Series is the **most versatile line** of pneumatic and electro-pneumatic positioners available. From general purpose use to extreme and hazardous locations, count on **flawless performance** from every model.

### General Purpose

VE  
VP



### Hazardous Locations

VX

Explosion  
Proof I/P



### General Purpose + Hazardous Locations

VI

Intrinsically Safe  
Non-Incendive



#### MODEL VI – Hazardous Locations Information

- I/P Converter Type 22/06-65 (Model VI)
- Factory Mutual Approved:  
Intrinsically Safe, Class I, Division I, Groups A,B,C,D  
Non-Incendive, Class I, Division 2, Groups A,B,C,D
- CSA Approved:  
Intrinsically Safe, Class I, Division I and 2,  
Groups A,B,C,D
- CENELEC Approved EEx ia IIC T6
- For Applications in Hazardous Locations Reference  
Control Documents No. 900842/900843 Available  
by Contacting VRC.

#### MODEL VX – Hazardous Locations Information

Note: For the VX model hazardous ratings apply to the I/P metal (nema 7) housing only, the positioner housing is Nema 4x only:

- Factory Mutual Approved:  
Class I & II, Division 1, Groups B,C,D,E,F,G
- CSA approved:  
Class I & II, Division 1, Groups B,C,D,E,F,G

### Fail-Freeze I/P

VF

Fail in  
Last Position



### Limit Switch/Transmitter Mounting Option

VX\*



\*Shown with optional cover.

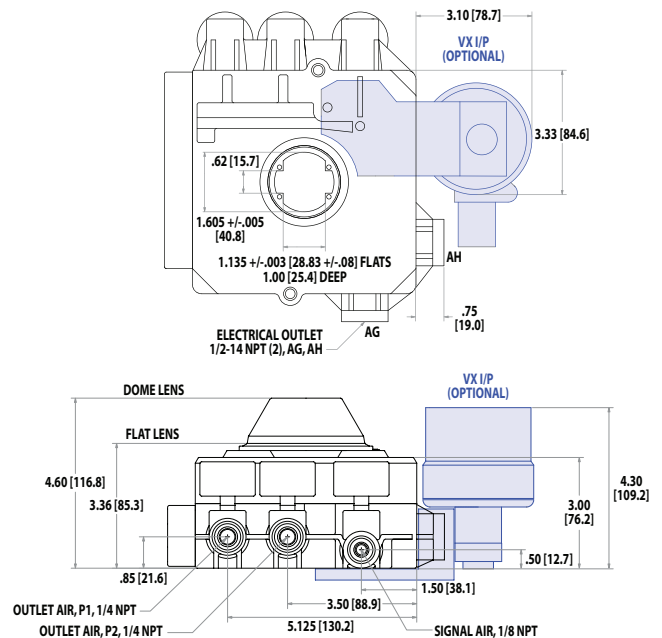
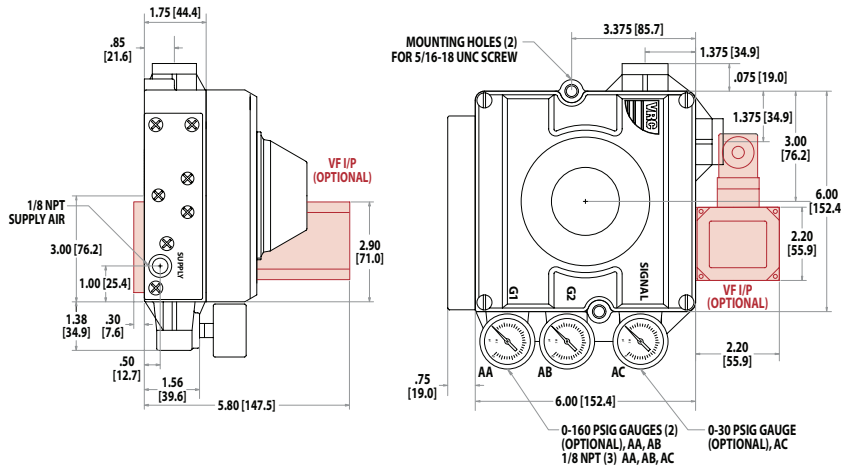


PERFORMANCE

PARAMETER	SPECIFICATION
<b>Resolution</b>	0.25% Maximum 0.10% Typical
<b>Repeatability</b>	99.75% Minimum 99.90% Typical
<b>Hysteresis</b>	0.50% Maximum 0.25% Typical
<b>Linearity</b>	+/- 1.0% Maximum
<b>Gain @80 PSIG</b>	250 Single-Acting 500 Double-Acting
<b>Air Consumption @80 PSIG</b>	0.25 SCFM Standard Flow Spool Valve 0.45 SCFM. Maximum Flow Spool Valve
<b>Temperature Range</b>	-40 to 150F/-40 to 65c

CONSTRUCTION

PART	MATERIALS
<b>Models VI, VX, VF</b>	Anodized and epoxy painted aluminum
<b>Enclosure</b>	PPA Composite, 300 Series Stainless Port Rings, Cover and Mounting Bolts
<b>Indicator Lens</b>	LEXAN
<b>Internals</b>	PPA, PPS and PEEK Composites 300 Series Stainless Steel Nickel Plated Brass
<b>Spool Valve</b>	Carpenter 70 Grade Stainless Steel
<b>I/P Converter (VK02)</b>	PPA Composite, TEFLON Coated Carbon Steel, Nickel Plated Carbon Steel, High Density Polyethylene DELTRIN
<b>Signal Diaphragm/O-Rings</b>	BUNA N



REQUIRED SELECTIONS

OPTIONAL SELECTIONS

Model Type	Position Indicator	Characterizing Cam	Spool Valve	Port Gauges	Position Transmitter	Limit Switch
<b>VP</b> Pneumatic 3-15 PSI	Switch Mount 4	Linear 0	Standard 0	Brass G	4-20 MA T1	Mechanical (2) SPDT S1
<b>VE</b> Electro-Pneumatic 4-20 MA	Fusion Coating Flat Lens 5	Square Root 1	Maximum 1	Full Stainless Z	1 kOhm T2	Proximity (2) SPST S2
<b>VI</b> Electro-Pneumatic General Purpose and Hazardous Locations	Fusion Coating Dome Lens 6	Square 2	Extreme Service Standard Flow 2	Stainless Case Y		
<b>VX</b> External I/P Explosion Proof Hazardous Locations	Flat 90° 7	0-60 degrees 3	Extreme Service Maximum Flow 3			
<b>VF</b> Fail-Freeze I/P	Flat 180° 8	Equal Percent 4				
	Dome 90° 9	Custom 5				
		Tangent 6				
		0-45 degrees 7				
		0-35 degrees 8				

**ORDER EXAMPLE** A MODEL VE900-G-T1-S2 is a: (Model VE) Electro-Pneumatic Positioner with a (9) DOME Position Indicator, 2 quadrant; (0) LINEAR Cam; and (0) STANDARD FLOW SPOOL VALVE. Optional fields specify: (G) BRASS Gauges; (T1) 4-20 MA Position Transmitter, and (S2)(2) SPST PROXIMITY Limit Switches.

Note: Where limit switches and/or transmitters are required in hazardous locations, the (4) Switch Mount Cover is available for mounting Nema 7-type switch boxes.