



Pneumatic and Electro-Pneumatic Positioners



Valve Related Controls



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.

Very best flexibility.

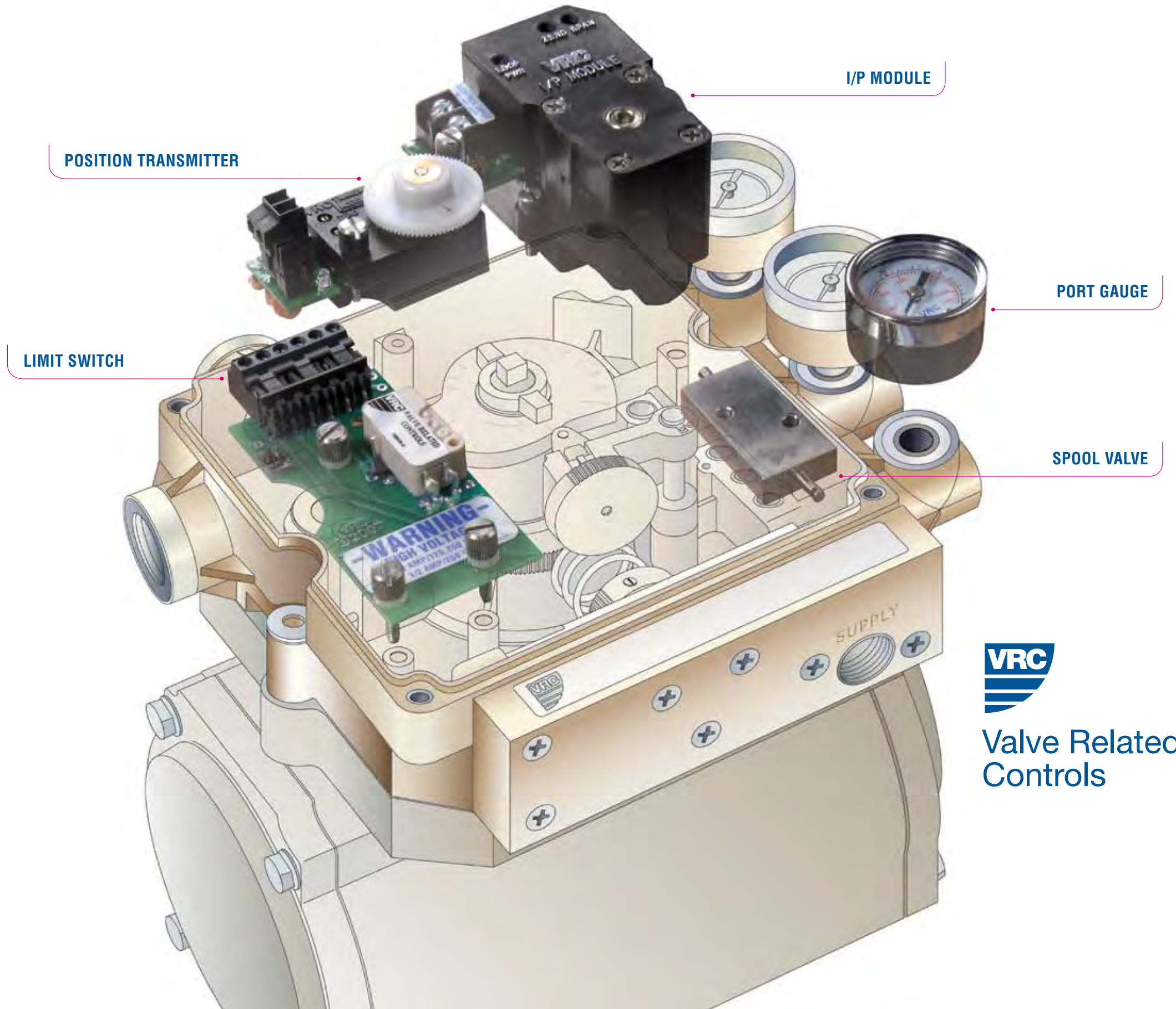
The V Series universal mounting adapts to practically every quarter-turn actuator. **Very best precision.**

The V Series affords precise, accurate mechanical calibration with Click-Lock™, a VRC 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. VRC'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.



Valve Related Controls

Model V Series

models

VRC 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.

options



POSITION INDICATOR

- Flat 90
- Dome 90
- Flat 180 (available)



CHARACTERIZING CAM

- Linear
- Square Root
- Square
- 0-60°
- Equal Percent
- Custom
- Tangent
- 0-45°
- 0-35°



SPOOL VALVE

- Standard Flow
- Maximum Flow
- Extreme Service



PORT GAUGES

- Brass
- Full Stainless
- Stainless Case



POSITION TRANSMITTER

- Current: 4-20 MA.
- Resistive: 1000ohm.



LIMIT SWITCH

- Mechanical (S1 Option)
(2) SPDT. UL Approved
10A @ 125/250 VAC
0.5A @ 125 VDC
- Proximity (S2 Option)
(2) SPST. UL Approved
1A @ 140 VAC
1A @ 200 VDC
50 Watts Maximum



UNIVERSAL MOUNTING KIT

Mounting Kit items include:

- Bracket
- Small Coupler
- Large Coupler
- Namur Coupler
- Linear Adaptions Available



Note: Any kit item may be purchased separately.

Reliability. Economical operation. Trouble-free performance. VRC is the industry leader in field-proven, positioner technology.



Modular.

Modularity is the cornerstone of the entire VRC line. Upgrading or modifying any unit is **simple, quick and hassle-free**. Switch from pneumatic to electro-pneumatic with ease. Upgrade a positioner in the field with Limit Switches and position Transmitters easily. VRC simplifies upgrades, minimizes inventory and eases servicing **like no other line** on the market.



Quality built in the United States



Corrosion resistant.

VRC corrosion resistance is unequalled. The I/P Converter and Position Feedback Transmitter are epoxy sealed and the Proximity Switches are hermetically sealed for the ultimate environmental protection. The PPA enclosure and internals exceed NEMA standards and are specifically designed for all routine and most highly corrosive applications. The PPA **enclosure is inherently waterproof and carbon graphite filled to satisfy the toughest demands** in both indoor and outdoor applications.



Service and support that exceeds expectation



Easy to mount.

Adaptability is a key feature of the V Series. Regardless of actuator model or design, the option V Series Universal Mounting Kit allows for **customized adaptation to most current industry models, sizes and styles** of quarter turn actuators. The low profile design of the V Series Universal Mounting Kit insures high performance adaption to the accessory side of the actuator.



On-going testing makes VRC dependable

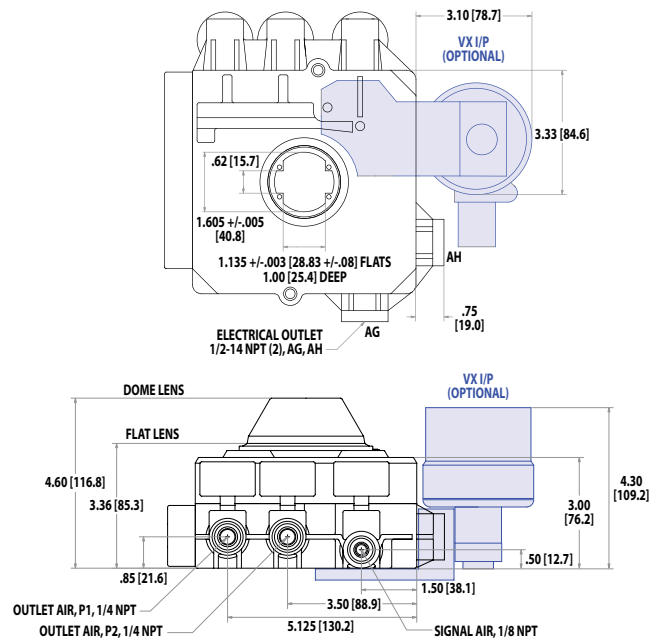
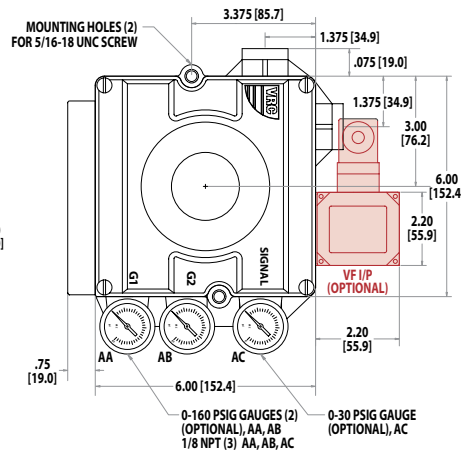
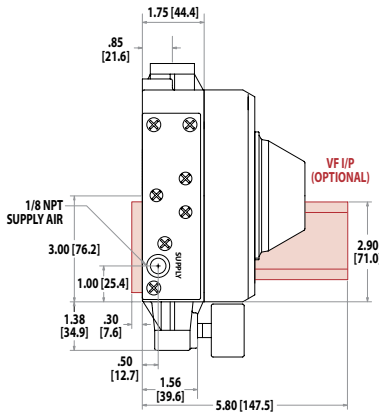


PERFORMANCE

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

CONSTRUCTION

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



REQUIRED SELECTIONS

OPTIONAL SELECTIONS

Model Type	Position Indicator	Characterizing Cam	Spool Valve	Port Gauges	Position Transmitter	Limit Switch			
VP Pneumatic 3-15 PSI	Switch Mount	4	Linear 0	Brass	G	4-20 MA	T1	Mechanical (2) SPDT	S1
VE Electro-Pneumatic 4-20 MA	Fusion Coating Flat Lens	5	Square Root 1	Full Stainless	Z	1 kOhm	T2	Proximity (2) SPST	S2
VI Electro-Pneumatic General Purpose and Hazardous Locations	Fusion Coating Dome Lens	6	Square 2	Stainless Case	Y				
VX External I/P Explosion Proof Hazardous Locations	Flat 90°	7	0-60 degrees 3						
VF 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.

