Model V Series

Pneumatic and Electro-Pneumatic

Positioners

Valve Related Controls

VRC

MADE IN THE USA

Pneumatic & Electro-Pneumatic Positioners

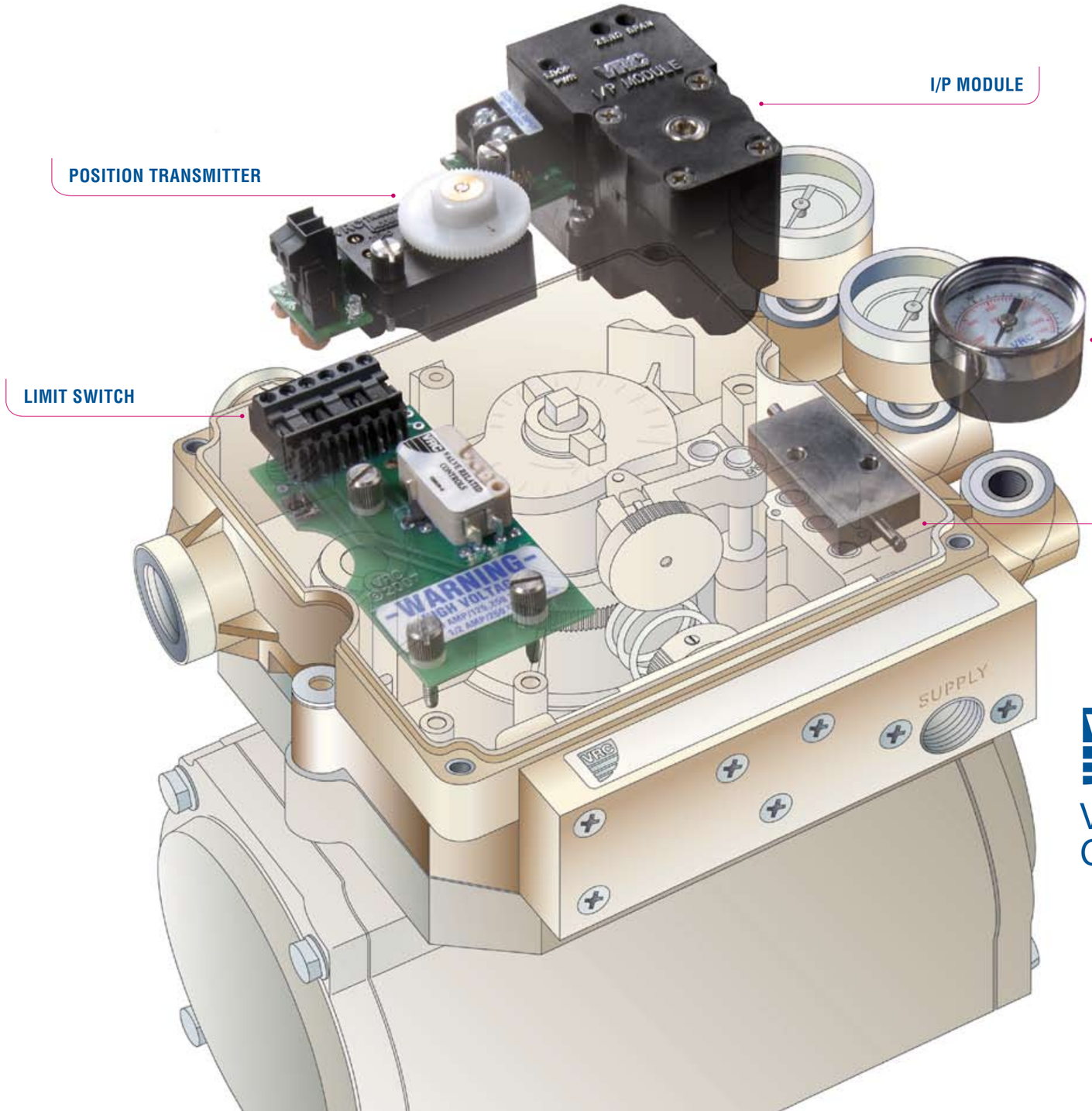
True Modularity • Universal Mounting • Field Upgradeable • Encapsulated Electronics • Corrosion-Resistant Housing • Hazardous Location Models

V Series Model VI

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-LockTM, 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.



VRC

Valve Related Controls

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

Hazardous Locations

General Purpose + Hazardous Locations

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

Limit Switch/Transmitter Mounting Option

*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.

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features

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 hassel-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 unequaled. 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

specifications

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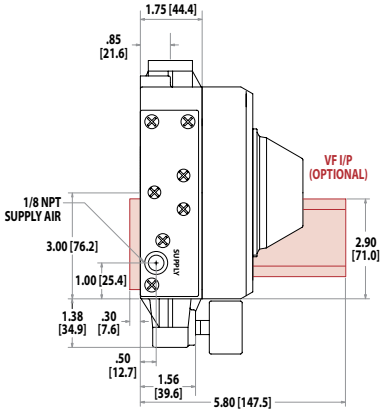
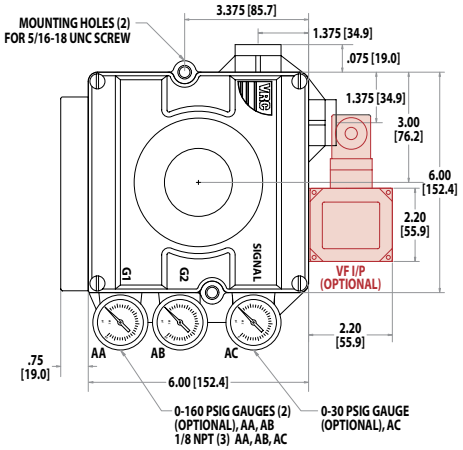
PERFORMANCE

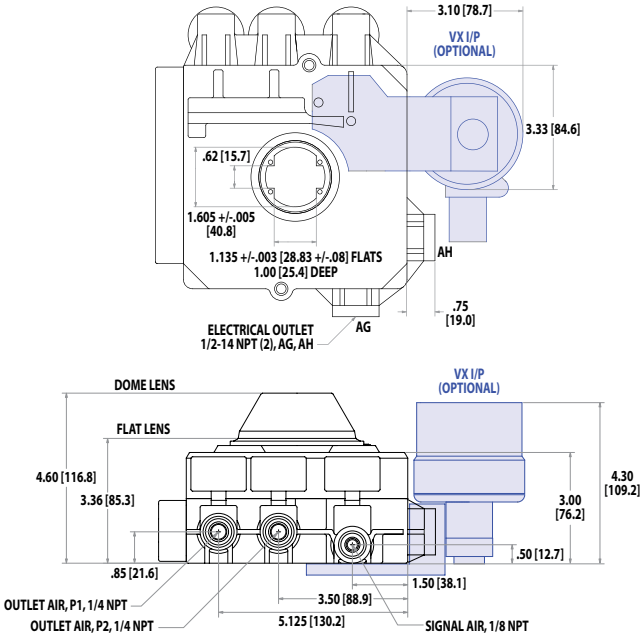
PARAMETER	SPECIFICATION
Resolution	0.25% Maximum 0.10% Typical
Repeatability	99.75% Minimum 99.90% Typical
Hysteresis	0.50% Maximum 0.25% Typical
Linearity	+/- 1.0% Maximum
Gain @80 PSIG	250 Single-Acting 500 Double-Acting
Air Consumption @80 PSIG	0.25 SCFM Standard Flow Spool Valve 0.45 SCFM. Maximum 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 DELRIN
Signal Diaphragm/ O-Rings	BUNA N







REQUIRED SELECTIONS

Model Type

VP Pneumatic 3-15 PSI

VE Electro-Pneumatic 4-20 MA

VI Electro-Pneumatic General Purpose and Hazardous Locations

VX External I/P Explosion Proof Hazardous Locations

VF Fail-Freeze I/P

Position Indicator

Switch Mount	4
Fusion Coating Flat Lens	5
Fusion Coating Dome Lens	6
Flat 90°	7
Flat 180°	8
Dome 90°	9

Characterizing Cam

Linear	0
Square Root	1
Square	2
0-60 degrees	3
Equal Percent	4
Custom	5
Tangent	6
0-45 degrees	7
0-35 degrees	8

Spool Valve

Standard	0
Maximum	1
Extreme Service Standard Flow	2
Extreme Service Maximum Flow	3

OPTIONAL SELECTIONS

Port Gauges

Brass	G
Full Stainless	Z
Stainless Case	Y

Position Transmitter

4-20 MA	T1
1 kOhm	T2

Limit Switch

Mechanical (2) SPDT	S1
Proximity (2) SPST	S2

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.

MADE IN THE USA

Design: Bryan Boyd Creative Group, Inc., Charleston, WV / Printing: Richardson Printing, Marietta, OH