A POSITIONER THAT OFFERS IT ALL
IN ONE COMPACT, SIMPLE, HOUSING

WWW.VACACCESSORIES.COM
205-678-0507
The V200 Positioner

ALL IN A SINGLE COMPACT AND RUGGED HOUSING

The V200 incorporates the flexibility of converting from a pneumatic unit to several versions of an electropneumatic unit, and the ability to add position feedback, in a matter of minutes, all in one compact and rugged housing. Maximum flexibility and versatility.

With a rugged Nema 4X, IP 66 die cast aluminum housing, versatile polyester coating, optional Tufram® or Nickel coatings, low -58F or high +325F temp options, and standard features like external zero and span adjustment, this unit expands the VAC offering to cover this “all in one” market for positioners. Add to this the excellent performance yet simple design, and the combination equals a real value.
V200 BENEFITS

- Compact Design
- Quality components = rugged and accurate performance
- External zero and span (complete calibration) adjustment without removing cover
- Easily maintain all key components
- Clear, visible indicator with arrow indicator standard-beacon optional
- Field changeable to any I/p option

V200 OPTIONS

- V200E-Standard Nema 4X Unit or IS Unit
- V200E-0/10 Volt Unit
- V200EX Explosion Proof Unit
- Extra High Temp (EHT) +325˚ F only available in pneumatic
- V200EX-GA Gas Approved Unit
- V200 Tufram® Coated
- V200 Nickel Coated
- Internal switches- Mechanical or Reed general purpose only
- V200EX with Third Party EX Switch

Tufram® is a registered trademark of General Magnaplate Corporation.
### Technical Specifications:

<table>
<thead>
<tr>
<th>Positioners:</th>
<th>Pneumatic</th>
<th>Electropneumatic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>V200P</strong></td>
<td>3-15 PSI</td>
<td>4-20mA</td>
</tr>
<tr>
<td><strong>V200E &amp; -IS</strong></td>
<td>4-20-145 PSI</td>
<td>4-20 mA</td>
</tr>
<tr>
<td><strong>V200-EX</strong></td>
<td>20-145 PSI</td>
<td>4-20 mA</td>
</tr>
<tr>
<td><strong>V200E 0-10</strong></td>
<td>20-120 PSI</td>
<td>0-10 VDC</td>
</tr>
<tr>
<td><strong>Positional</strong></td>
<td>&lt;0.7% f.s.</td>
<td>&lt;0.8% f.s.</td>
</tr>
<tr>
<td><strong>Input Signal</strong></td>
<td>3-15 PSI</td>
<td>3-15 PSI</td>
</tr>
<tr>
<td><strong>Supply Pressure</strong></td>
<td>20-145 PSI</td>
<td>20-145 PSI</td>
</tr>
<tr>
<td><strong>Linearity error</strong></td>
<td>&lt;1.0% f.s.</td>
<td>&lt;1.0% f.s.</td>
</tr>
<tr>
<td><strong>Hysteresis</strong></td>
<td>&lt;0.4% f.s.</td>
<td>&lt;0.5% f.s.</td>
</tr>
<tr>
<td><strong>Repeatability</strong></td>
<td>&lt;0.3% f.s.</td>
<td>&lt;0.4% f.s.</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>3.2 lbs.</td>
<td>3.8 lbs.</td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>-40 to 185 °F</td>
<td>-40 to 185 °F</td>
</tr>
<tr>
<td><strong>Low Temp</strong></td>
<td>-58 to 185 °F</td>
<td>-50 to 85 °C</td>
</tr>
<tr>
<td><strong>Extra High Temp (EHT)</strong></td>
<td>-40 to 325 °F</td>
<td>-40 to 160 °F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spool/Pilot Valves</th>
<th>Standard /Low Bleed</th>
<th>High Gain</th>
<th>Super High Gain/High Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Delivery</strong></td>
<td>@87 PSI (600 kPa)</td>
<td>28.3 scfm</td>
<td>31.5 scfm</td>
</tr>
<tr>
<td><strong>Bleed Rate</strong></td>
<td>@87 PSI (600 kPa)</td>
<td>&lt;.2 scfm</td>
<td>.83 scfm</td>
</tr>
<tr>
<td><strong>Pressure Gain</strong></td>
<td>240:1</td>
<td>1100:1</td>
<td>1100:1</td>
</tr>
</tbody>
</table>

- **Air connections**: 1/4” NPT
- **Gauges**: 1/8” NPT
- **Cable Entry**: 1/2” NPT
- **Ingress & corrosion protection**: NEMA 4X and IP66
- **Standard coating**: Polyester

**Feedback (not rated for EX or IS)**: Enclosure Nema 4X/IP 66

**General Purpose**: Plug-in components directly into V200 series positioner housing

**Can combine switches and 4/20 feedback**

**Conduit connections**: 1/2” NPT

**Operating temp**: -40 to +185 °F (-40 to +85 °C)

**Mechanical Switches**: 2-Type: SPDT, V3

**Max Load**: Resistive, (Inductive), Voltage

- 15 A (3) A, 125/250 VAC
- 0.25 A (0.1) A, 220 VDC
- 0.5 A (0.2) A, 110 VDC
- 8 A (7) A, 24 VDC

**Reed Switches**: 2-Type: SPDT-CO, Form C

**Contact rating**: max 3W

**Voltage**: Switching, max 100 VDC

**Breakdown**: min 200 VDC

**Current**: Switching, max 0.20 A

**Carry**: max 1.3 A

**Contact resistance**: 0.2 ohms

**Contact capacitance**: 0.3 pF

**4/20 mA Position Feedback**: Voltage supply: 7-30 VDC

**Output**: 4-20 mA, 2 wire

**Loop Impedance**: max 850 ohms @ 24 VDC

**Linearity error**: <1.2%

**Hysteresis**: <0.2%

**Temp. Sensitivity**: < 0.1%/10 °F (5.5 °C)

**Other Options**: Potentiometer-Namur Sensors - Third party stackable EX mounting kits

### Approvals—I/p only

**Available Approvals**: Ratings for Hazardous Locations

**Explosion Proof**: CL I, II Div 1 Grp B-G

**Non Incendive**: CL 1 Div 2 Grp A-C

**Intrinsically Safe**

- FM: CL I-II-III Div 1 Grp A-G
- CSA: CL II Div 1&2 Grp E-G

**ATEX**

- 1487X, intrinsically safe EEx ia IIC T4/T5/T6
- E121X, flameproof EEx d IIC T4/T5/T6

**Temperature Class**

- Short circuit Current-max: 50 mA
- Ambient Temp max: 140 °F (60 °C)
- T6: 50 mA, 140 °F (60 °C)
- T5: 60 mA, 158 °F (70 °C)
- T4: 60 mA, 185 °F (85 °C)

**V200-IS (Intrinsically Safe)**

- FM: CL1 Div1 Grp A B C D
- CSA: EX ia CL1 Grp A B C D

**Other Approvals**
## Ordering Codes:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumatic</td>
<td>V200 P</td>
</tr>
<tr>
<td>Electropneumatic</td>
<td>V200 E</td>
</tr>
<tr>
<td>Explosion Proof</td>
<td>V200 EX</td>
</tr>
<tr>
<td>Intrinsically Safe</td>
<td>V200 IS</td>
</tr>
<tr>
<td>Fail Freeze</td>
<td>V200 FF</td>
</tr>
</tbody>
</table>

### Spindle

- **D1 Namur** (standard)

For additional spindle options, please contact VAC or visit our website at www.vacaccessories.com

### Front Cover

- 90 degree rotation: 90
- 60 degree rotation: 60
- 45 degree rotation: 45
- 30 degree rotation: 30
- Blank scale: 00

### Indicator

- Arrow: A
- Standard Beacon/Raised (Black/Yellow): B
- Optional Beacon/Raised (Red/Green): BRG
- (standard) 90°: C1

### Cam

For additional cam options, please contact VAC or visit our website at www.vacaccessories.com

### Spool Valve Options (shipped with standard spool)

- Standard (Low Bleed): SG/LB—Shipped as Standard
- High Gain: HG
- Super High Gain/Flow: SHGHF

### Options

- Extra High Temp (Pneumatic only) (-40 to 325 F): EHT
- Low Temp (Pneumatic only) (-58 to 185 F): LT
- 0/10 Volt I/P (V200E only): 0/10V
- Gas Approved: GA
- ATEX: ATEX
- Tufram® Coating (V200 P and E): TUF
- Nickel Coating (V200 P and E): NIC
- 6-30 Psi Spring: 6-30

### Feedback Options

- 2 SPDT Mechanical Switches: FB
- 2 SPDT Reed Switches: M
- 4-20 mA Transmitter: mA
- Mech Switches w/transmitter: MmA
- Reed Switches w/transmitter: RmA
- 1 K potentiometer: 1K
- 10 K potentiometer: 10K

### Example:

**V200E-D1-90-B-C1**

Electropneumatic with namur spindle, 90 degree cover, raised indicator, 90 degree cam

**Example:**

**FB-MmA**

Mechanical switches with 4/20 mA transmitter

---

Tufram® is a registered trademark of General Magnaplate Corporation.
V200EX

Gauges 1/8" NPT(4x)(optional)

NOTE: mm appear in parentheses

V200E-GA

Gauges 1/8" NPT(4x)(optional)
Retrofit your valve with a VAC Positioner—a “choice” of options!

Most industrial control valves are equipped with the valve manufacturer’s “standard” positioner when the valve is first delivered. As these companies move into new generation products, they often leave behind a whole marketplace of product needs that don’t “fit” the application needs. When these manufacturers’ standard positioners need replacing, what choices are you offered? High prices, poor delivery, or discontinued products leave users without many options.

From a very basic and simple, pneumatic unit to standard or EX electropneumatic, to a complete line of digital positioners, the choice of replacing the manufacturer’s “standard” positioner is back in your hands. VAC products offer the control accuracy you need in a simple rugged design (all metal housings) that is flexible and adaptable. The installed base of control valves is very important to users and to VAC.

Retrofit with a VAC positioner, putting your positioner options back in your control.

Our way of doing business is just as simple as our products.

A solid, simply designed positioner, with high quality construction is just the start of the Valve Accessories and Controls story. Because we are a privately held, customer driven company, we can meet your needs much quicker, with a lot more flexibility.

A quality company must be a lot more than a quality product. Responding promptly and honestly, showing genuine interest in what we do and what you do, staying focused on our strengths, and being different in a positive way are important.

Sounds simple—we plan to keep it that way!