



VALVE ACCESSORIES & CONTROLS



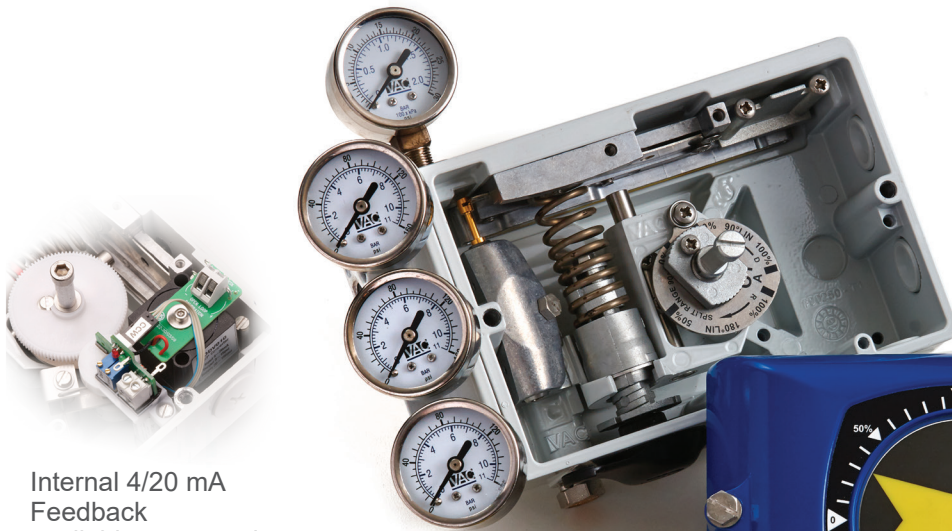
V200
POSITIONER

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

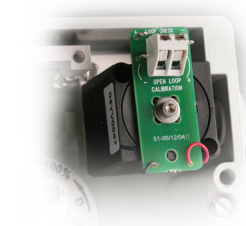
WWW.VAC.SE

INFO@VAC.SE

The V200 Positioner



Internal 4/20 mA
Feedback
available as an option



Internal I/p with simple loop
test points.



Flexible mounting
for rotary or linear
applications



Dome Indicator -
Black/Yellow, Red/Green
available as an option



External zero and span adjustment-
without removing the positioner cover

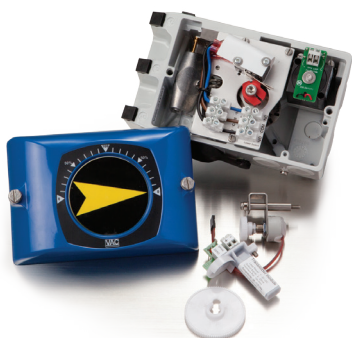
ALL IN A SINGLE COMPACT AND RUGGED HOUSING

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 -50°C / -58°F or high 163°C / +325°F 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.

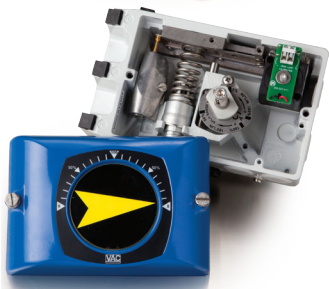
V200 OPTIONS



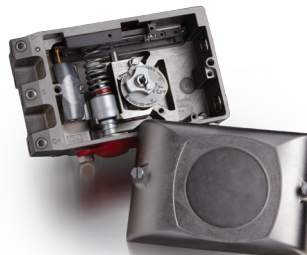
Internal switches-
Mechanical or Reed
general purpose only



V200E-0/10 Volt Unit



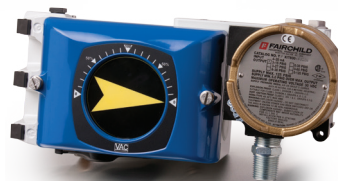
V200E-Standard
Nema 4X Unit or
IS Unit



Extra High Temp
(EHT) 163°C / 325°F
only available in
pneumatic



V200-EX Explosion
Proof Unit



V200E-GA Gas
Approved Unit



V200 Nickel Coated



V200 Tufram® Coated

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-EX with Third Party EX Switch

Tufram® is a registered trademark of General Magnaplate Corporation.

Technical Specifications:

| Positioners: | Pneumatic V200P | Electropneumatic V200E & -IS | V200-EX | V200E 0-10 |
|-----------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Input Signal | 20-100 kPa / 3-15 psi | 4-20mA | 4-20 mA | 0-10 VDC |
| Supply Pressure | <1MPa / <145 psi | 0,15-1 MPa / 20-145 psi | 0,15-1 MPa / 20-145 psi | 0,15-0,8 MPa/ 20-120 psi |
| Linearity error | <0.7% f.s. | <1.0% f.s. | <0.8% f.s. | <1% f.s. |
| Hysteresis | <0.4% f.s. | <0.6% f.s. | <0.5% f.s. | <0.5% f.s. |
| Repeatability | <0.3% f.s. | <0.5% f.s. | <0.4% f.s. | <0.5% f.s. |
| Weight | 1,45kg / 3.2 lbs | 1,7kg / 3.8 lbs. | 2,45kg / 5.4 lbs. | 1,7kg / 3.8 lbs. |
| Temperature range | -40 to +85 °C (-40 to +185 °F) | -40 to +85 °C (-40 to +185 °F) | -40 to +85 °C (-40 to +185 °F) | -40 to +71 °C (-40 to +160 °F) |
| Low Temp | -50 to +85 °C (-58 to +185 °F) | | | |
| Extra High Temp (EHT) | -40 to +163 °C (-40 to +325 °F) | | | |

| Spool/Pilot Valves | Standard /Low Bleed | Super High Gain (3) | Super High Gain Super High Flow (4) |
|---------------------------|-----------------------|-----------------------|-------------------------------------|
| Air Delivery | Nm³/h / NI/min / scfm | Nm³/h / NI/min / scfm | Nm³/h / NI/min / scfm |
| @6 bar / 600 kPa / 87 psi | 48 / 800 / 28.3 | 53,4 / 890 / 31.5 | 84 / 1400 / 50 |
| Bleed Rate | Nm³/h / NI/min / scfm | Nm³/h / NI/min / scfm | Nm³/h / NI/min / scfm |
| @6 bar / 600 kPa / 87 psi | <0,34 / <5,6 / <.2 | 1,41 / 23,5 / .83 | 2,21 / 36,8 / 1,3 |
| Pressure Gain | 240:1 | 1100:1 | 1100:1 |

| | |
|--------------------------------|---------------------|
| Air connections | 1/4" G or 1/4" NPT |
| Gauges | 1/8" G or 1/8" NPT |
| Cable Entry | M20x1,5 or 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 M20x1,5 or 1/2" NPT

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

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,

Contact rating:

| | | |
|----------|-----------|-------------|
| 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%/5,5 °C (10 °F) |

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
CL III

ATEX-explosion protection

1487X, intrinsically safe EEx ia IIC T4/T5/T6

E121X, flameproof EEx d IIC T4/T5/T6

Temperature Class

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

V200-IS (Intrinsically Safe)

FM CL1 Div1 Grp A B C D

CSA EX ia CL1 Grp A B C D
EX ia CL 1 Div2 Grp A B C D



Ordering Codes:

| | |
|--------------------|----------------|
| Pneumatic | V200 P |
| Electropneumatic | V200 E |
| Explosion Proof | V200 EX |
| Intrinsically Safe | V200 IS |
| Fail Freeze | V200 FF |

Spindle D1 Namur (standard)

For additional spindle options, please contact VAC or visit our website at www.vac.se

Front Cover

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

Indicator

Arrow
Standard Beacon/Raised (Black/Yellow)
Optional Beacon/Raised (Red/Green)

A
B
BRG
C1 (standard)

Cam

(standard) 90°

For additional cam options, please contact VAC or visit our website at www.vac.se

Spool Valve Options (shipped with standard spool)

| | |
|---------------------------------|----------------------------------|
| Standard (Low Bleed) | SG/LB—Shipped as Standard |
| Super High Gain | SHG (3) |
| Super High Gain Super High Flow | SHGSHF (4) |

Options

| | |
|---|--------------|
| Extra High Temp (Pneumatic only) (-40 to +163 °C / -40 to +325 °F) | EHT |
| Low Temp (Pneumatic only) (-50 to +85°C / -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 |
| 40-200kPa / 6-30 psi Spring | 6-30 |

V200E-GA Gas
Approved Unit



V200E-0/10 Volt Unit



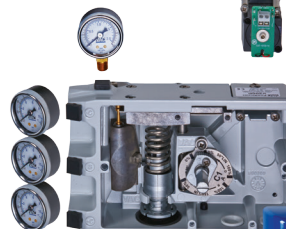
Feedback Options

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

V200-EX Explosion
Proof Unit



V200E-Standard
Nema 4X Unit or
IS Unit



Example:

V200E-D1-90-B-C1

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

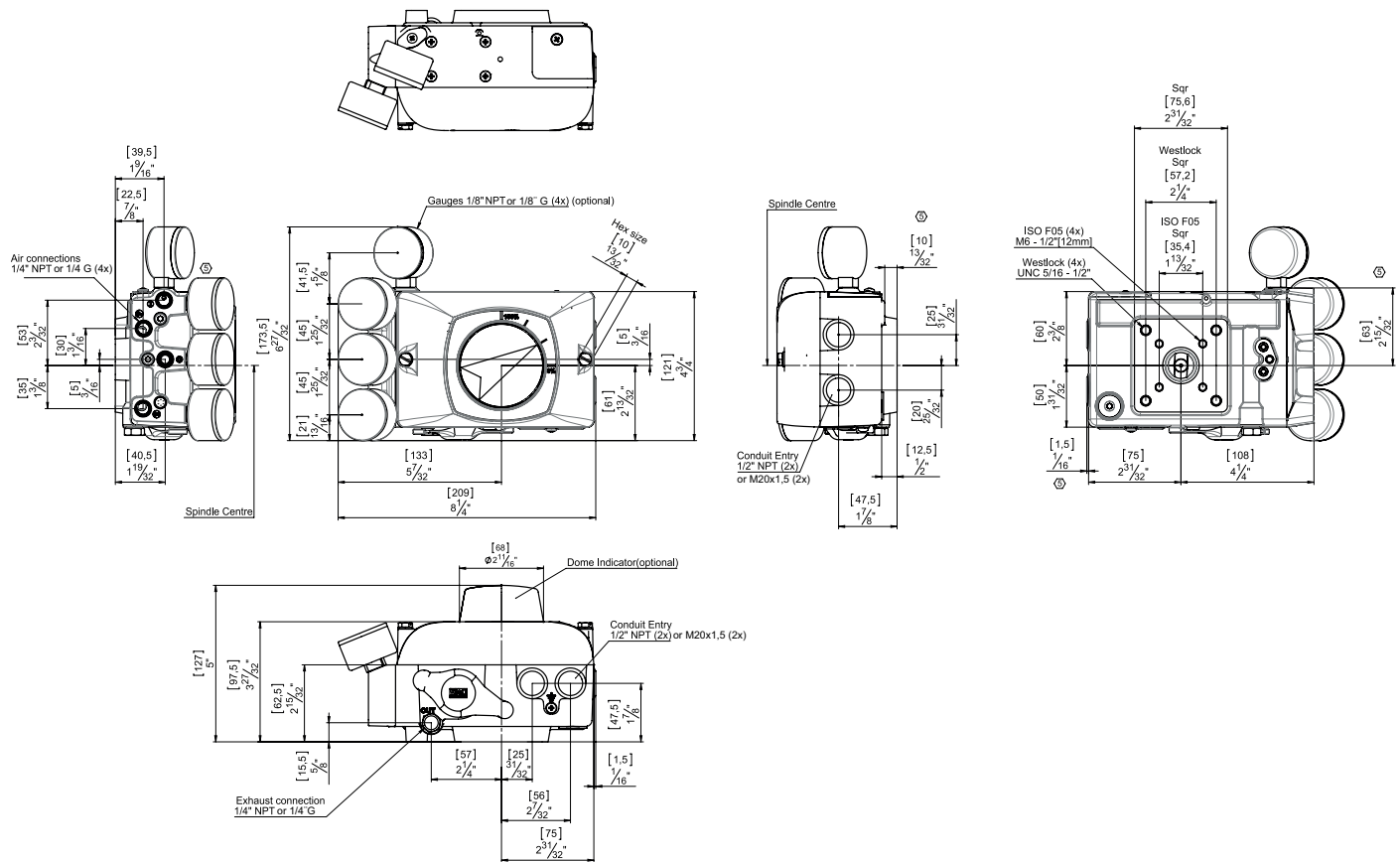
Example:

FB-MmA

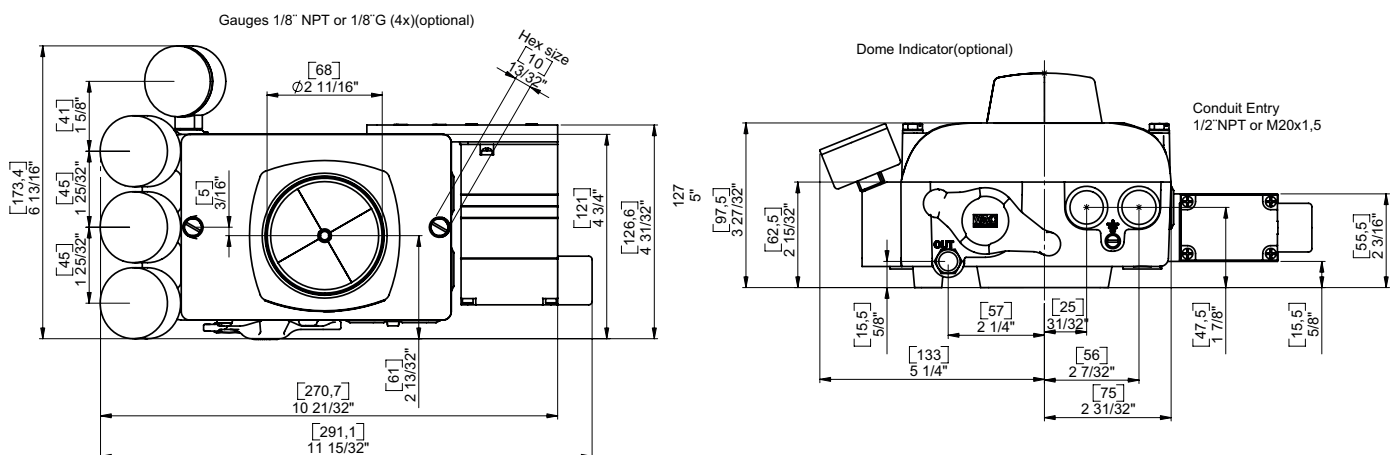
Mechanical switches with
4/20 mA transmitter



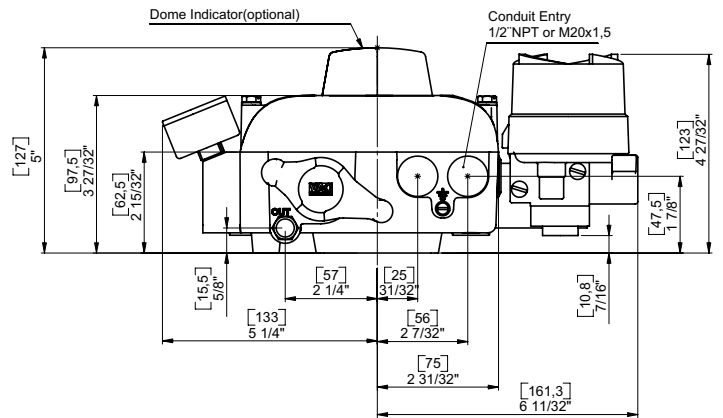
V200P, E, -IS, TUF, NIC, EHT, LT



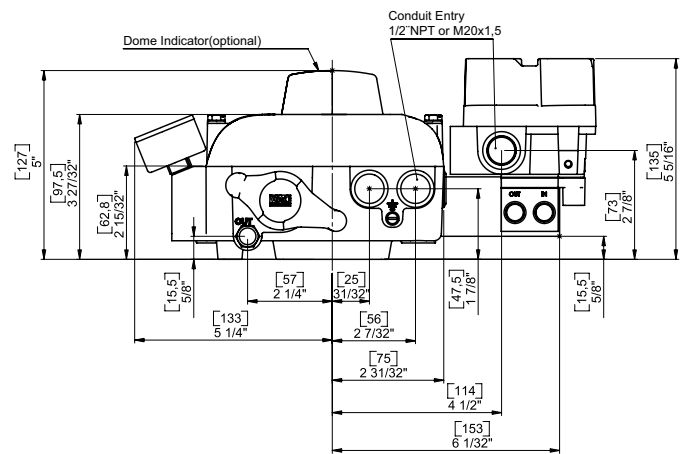
V200E 0-10V



V200-EX



V200E-GA



NOTE: mm appear in parentheses

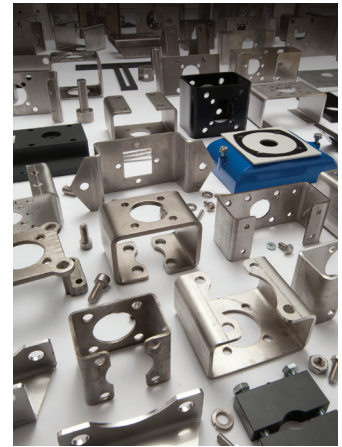


Our way of doing business is just as simple as our products.

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!



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.



Designed and manufactured in Sweden by:
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