

# AVCO

*Alloy Valves and Control*

## POSITIONERS V200 SERIES



### Positioner Type

Pneumatic  
Electro-Pneumatic  
Explosion Proof  
Intrinsically Safe  
Fail Freeze

### Feedback Type

2 SPDT Mechanical Switches  
2 SPDT Reed Switches  
4-20mA Transmitter  
Mechanical Switches w/transmitter  
Reed Switches w/transmitter

### Indicator Type

Arrow (Flat)  
Beacon (Dome)

### Features

Compact Design  
External Zero/Span Adjustment  
Die-Cast Aluminum Housing  
Standard NEMA 4X Housing  
Polyester Coated

### Options

Gas Approved  
Various Spindle Drives

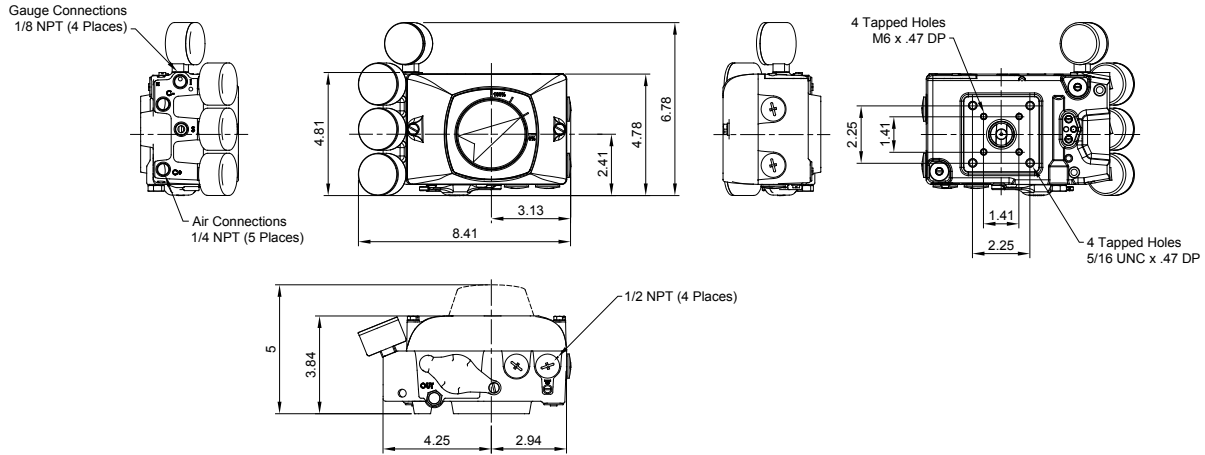
### Service Applications

Chemical  
Fluid Processing  
Hydraulic  
Water/Oil/Gas  
Pharmaceutical  
Steam

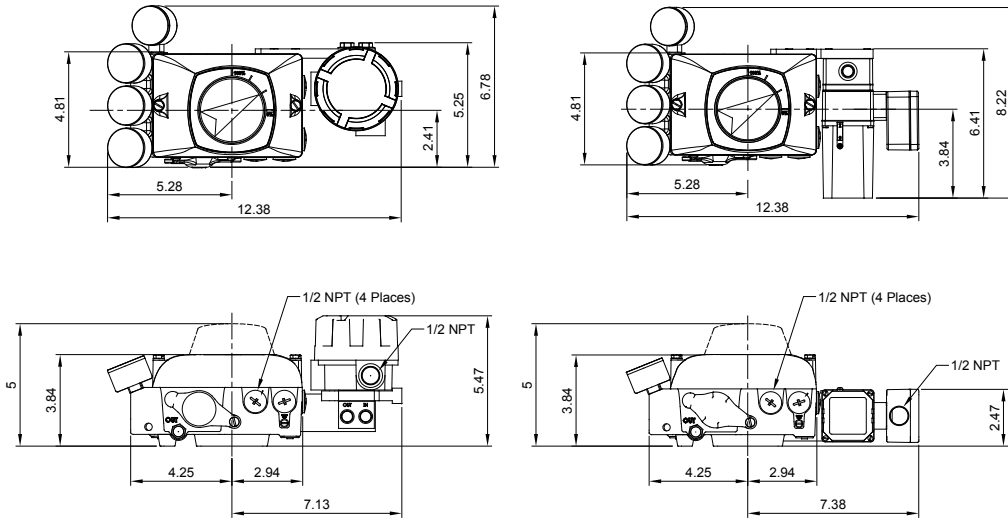
### Temperature Range

-40 thru 185 °F

### Alloy Valves and Control

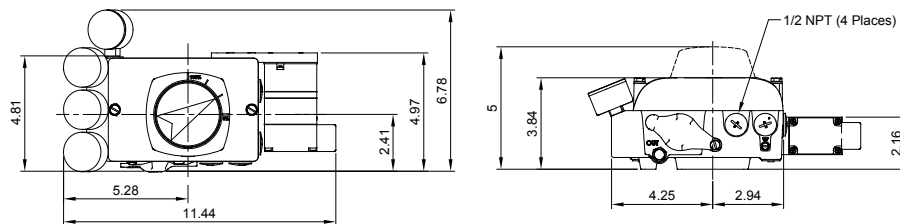


**V200P, E, E-IS**



**V200E-EX, E-GA**

**V200E-FF**



**V200 0-10V**

## Alloy Valves and Control

### Technical Specifications:

Positioners:	Pneumatic V200P	V200E & E-IS	Electropneumatic V200 E-EX	V200E-FF
Input Signal	3-15 PSI	4-20mA	4-20 mA	4-20 mA
Supply Pressure	145 PSI	145 PSI	100 PSI	145 PSI
Linearity error	<0.7% f.s.	<1.0% f.s.	<0.8% f.s.	<1.2% f.s.
Hysteresis	<0.4% f.s.	<0.6% f.s.	<0.5% f.s.	<0.9% f.s.
Repeatability	<0.3% f.s.	<0.5% f.s.	<0.4% f.s.	<0.8% f.s.
Temperature range	-40 to 185 F -40 to 85 C	-40 to 185 F -40 to 85 C	-40 to 158 F -40- to 70 C	-20 to 158 F -20 to 70 C
Air Delivery @87 PSI (600 kPa)	<b>Standard</b> 28.3 scfm	<b>Highflow/gain</b> 31.8 scfm		
Bleed Rate @87 PSI (600 kPa)	.35 scfm	.53 scfm		
Pressure Gain @87 PSI	300:1	800:1		
Air connections	1/4" NPT			
Gauges	1/8" NPT			
Cable Entry	1/2" NPT			
Ingress & corrosion protection		NEMA 4X and IP66		
Standard coating	Polyester			
Weight	P-3.2 lbs	E-3.8 lbs.	EX-5.3 lbs.	FF-5.4 lbs.

### Feedback

#### General:

Plug-in components directly into V200 series positioner housing  
 Can combine switches and 4/20 feedback  
 Conduit connections 1/2" NPT  
 Enclosure Nema 4X/IP 66  
 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)

#### Others Options:

Potentiometer-Namur Sensors

### Approvals

Ratings for hazardous locations:

#### V100E-EX (Explosion Proof)

##### Atex/Cenelec

Intrinsically safe: EEx ia IIB T4  
 Flameproof: EEx d IIB + H2 T4

##### British Standard (NI)

Non incandive: Ex N II T6 for Zone 2

##### FM

Intrinsically safe: CL I-II-III/DIV1/ Grp C D E F G  
 Non incandive: CL I / DIV2/ Grp A B C D  
 Explosion proof: CL I /DIV1/ Grp B C D  
 CL I II III/ DIV1 / Grp E F G

##### CSA

Intrinsically safe: CL I /DIV1/ Grp C D  
 CL II/DIV1/ Grp E F G  
 CL III  
 CL I / DIV2/ Grp B C D  
 CL II DIV1/ Grp E F G  
 Explosion Proof: CL I / DIV1/ Grp B C D  
 CL II/DIV I / Grp E F G

#### V100E-IS (Intrinsically safe)

##### Atex

EEx ia IIC T4/T6

##### FM

CL1 DIV1 Grp A B C D



##### CSA

Ex ia, CL I Grp A B C D

Ex ia CL I DIV2 Grp A B C D



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## HOW TO ORDER

V200	P	D1	90	A	C1	HG	M
Series	Type	Spindle	Front Cover	Indicator	Cam	Gain	Feedback Options
V200 Series Positioner	P - Pneumatic	D1 - Namur (Standard)	90 - 90° Rotation	A - Arrow	C1 - 90°	HG - High Gain	M - 2 SPDT Mechanical Switches
	E - Electro-Pneumatic	D2 - 1/2" Square	60 - 60° Rotation	B - Beacon	C2 - 45/90°		R - 2 SPDT Reed Switches
	EX - Explosion Proof	D3 - 3/8" Square	45 - 45° Rotation		C3 - 30/60°		mA - 4-20mA Transmitter
	IS - Intrinsically Safe	D4 - Round (Linear)	30 - 30° Rotation		C4 - 60/120°		MmA - Mechanical Switches w/Transmitter
	FF - Fail Freeze	D5 - Double D	XX - Blank Scale				RmA - Reed Switches w/Transmitter
		D6 - 3/8" Square (Long)					
		D7 - 3/4" Slotted					
		D8 - 12mm Dual Post					
		D9 - Old Namur (Special)					
		D10 - Namur (Special)					
		D11 - Octagon					

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