



VALVE ACCESSORIES & CONTROLS



VAC D400 Digital Positioner

D400
POSITIONER

WWW.VACACCESSORIES.COM
205-678-0507

The D400 Positioner



D400 NI



D400EX



D400

VAC D400 Digital Positioner

The VAC D400 is a microprocessor based, "intelligent" instrument that can be mounted to rotary or linear pneumatic actuators for accurate positioner and/or process control. This unit, while sophisticated in its accuracy and performance, is simple to mount, calibrate, and with good filtered air and proper maintenance, can provide very accurate and trouble-free service for many years.

Available with Hart, Foundation Fieldbus, or Profibus communication, the D400 range of applications and communications meets the latest industry standards. The "efficiencies" of the D400 are not only in its microprocessor based technology and accuracy, but also in the pneumatic air handling where air consumption is kept to a very minimum.

D400 Options



Features and Benefits:

- Microprocessor based valve positioner
- User friendly, menu driven programming with LCD Display
- Local push button configuration—no handheld device or PC necessary
- Low air consumption and proven dependable mechanical design
- Modular design—available with position feedback, micro switches and “Fail Freeze” options. Same unit for rotary or linear mounting.
- Aluminum Housing—Nema 4X IP 65 Enclosure—Standard—Electrostatically dipped varnish with stove-hardened epoxy resin.
- Unique adaptive control feature offers the ability to enhance valve/actuator package for maximum control without upsetting the process.
- ATEX-FM-CSA-IEC-Ex approvals available



Ordering Codes:

Digital Positioner	Action	Connections	Spindle	Communications	Options
D400	S-Single	N-NPT	D1-Namur	NO-No Communication	S2-Micro Switches
D400 IS (intrinsically safe only)	D-Double	G-Metric	D2-1/2" square	H-Hart	4/20-Transmitter
D400 NI (Non incendive and intrinsically safe)			D3-3/8" square	*FB-Foundation Fieldbus	FF-Fail Freeze
**D400 EX			D4-round-linear	*PA-Profibus	A-ATEX
(Explosion Proof)			D5-double "D"		PROX-NC
Example: D400-S-N-D1-H-4/20			D6-.344" square		
			Dx-linear standard		

*4/20 transmitter and switches are not available on FB and PA Bus units.

** D400 EX not available with no communication

When requesting a quote the items that can change pricing are: Positioner version, Action, Communication, Options-please have that information available for quick and accurate quotation.

Gauge block w gauges and Filter Regulator-coalescing are available as separate part numbers

VAC D400 Approvals

The D400 digital positioner has approvals for the below agencies. The details and exact listings associated with these approvals are quite extensive. Even the listing between no communication and Hart units vs. Fieldbus and Profibus can be slightly different. We have a supplemental document, entitled D400 Approval Details on our website under the D400 documentation section.

All D400 unit's enclosure are Nema 4X IP 65, Electrostatically dipped varnish with stove-hardened epoxy resin.

D400IS (Intrinsically Safe)

FM FM20US0122X
 IS CL I / Div 1 / Grp A-D T6, T4
 Ta = 40°C, 85°C
 CSA FM20CA0061X
 ATEX, IECEx and other agency
 approvals available

D400NI (Non Incendive)

FM FM20US0122X
 NI CL I, II, III / Div 2 / Grp A-G T6, T4
 Ta = 40°C, 85°C
 IS CL I, II, III / Div 1 / Grp A-G T6, T4
 Ta = 40°C, 85°C
 CSA FM20CA0061X
 ATEX, IECEx and other agency
 approvals available

D400EX

FM FM20US0122X
 EX CL I / Div 1 / Grp C, D T5
 Ta = -40° to +82°C
 DIP Class II, III / Div 1 / Grps E,F,G T5
 Ta = -40° to +82°C
 CSA FM20CA0061X
 ATEX, IECEx and other agency
 approvals available

Technical Information

Rotation:	25-270°	Stroke: .4 to 4" (longer strokes-POA)
Rotation Bus Units	25-120° standard, available up to 270°	Connections: 1/4" NPT Air 1/2" NPT Cable
Max Air supply:	90 PSI	Air consumption: ≤.015 SCFM
Air delivery:	6.0 SCFM @ 90 PSI	
Ambient temperature:	-40 to 185° F	
Characteristic curves:	linear, equal %, 1:25, 1:50, 25:1, 50:1 or user configurable with 20 reference points	
Characteristic deviation:	≤ 0.5%	
Deadband:	0.1%, adjustable to 10%	
Resolution (A/D conversion):	16,000 steps	
Sample rate:	20 msec	
Seismic vibration:	Meets requirements to DIN IEC 68-3-3 Class III for strong and strongest earthquakes	
Mechanical vibration:	≤ 1% up to 10 g and 10...80 Hz	
Mounting orientation:	≤ 0.5% at 90° change	
EMI:	complies with EMC directive 89/336/EEC as of May 1989 (increased EMI shielding to EN 50082-2 PR as of 11/93)	

Air Supply-Must be free of oil, water, and dust to DIN/ISO 8573-1 pollution and oil contents according to Class 3 dew point 10 K below operating temperatures.



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