



Valve Accessories & Controls

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VAC D400 Digital Positioner





D400/D400 IS

D400-EX

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 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.

Features and Benefits:

- Microprocessor based valve positioner
- User friendly, menu driven programming with LCD Display-multilingual
- 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—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 update 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	GB-Gauge block w gauges
D400 IS (Intrinsically safe-non incandive)	D-Double	G-Metric	D2-1/2" square	H-Hart	S2-Micro Switches*
D400 EX (Explosion Proof)			D3-3/8" square	FB-Foundation Fieldbus	4/20-Transmitter*
			D4-round-linear	PA-Profibus	FRC-Filter Regulator-coalescing
			D5-double "d"		FC-Filter Coalescing
			Dx-linear standard		FF-Fail Freeze
					A-ATEX
					G-ATEX/Gost
					PROX-NO
					PROX-NC

Example: D400-S-N-D1-H-4/20

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

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.



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. We have a supplemental document, entitled D400 Approval Details on our website under the D400 downloads or we can email or fax you a copy. They can also be found in the VAC Manuals on our website under the D400 Product Tab and the far right drop down menu. Even the listing between no communication and Hart units vs. Fieldbus and Profibus can be slightly different.

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

D400 IS	Intrinsically safe	D400 EX	Explosion Proof
FM	J.I 30005029 (3610, 3611)	FM	HLC 8/02 3010829
CSA	Certificate 1052414	Intrinsically safe	4X, T5 max 82°C
Non-incendive	Enclosure 4X, max 65°C	Non-incendive	4X, T4, max 85°C
ATEX/		Dust Ignition proof	4X, T5, max 82°C
GOST Russia		CSA	Certificate 1393820
GOST Ukraine	II 2G EEx ib IIC T6	ATEX/	
ATEX	II 2G EEx ib IIC T6	GOST Russia	
	II 2G EEx ia IIC T6	GOST Ukraine	II 2G EEx d II C T4/T5/T6
	II 3G EEx n A II T6	ATEX	II 2G EEx ib IIC T6
	II 2 D IP 6X T 46°C	IECEX	EXIB IIC T6
IECEX	Ex ib IIC T6		

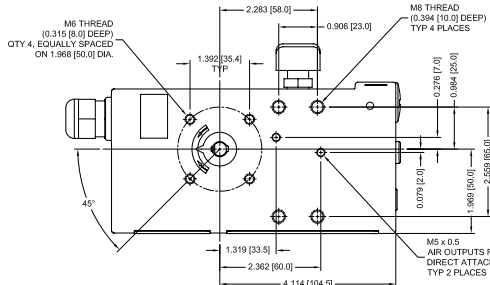
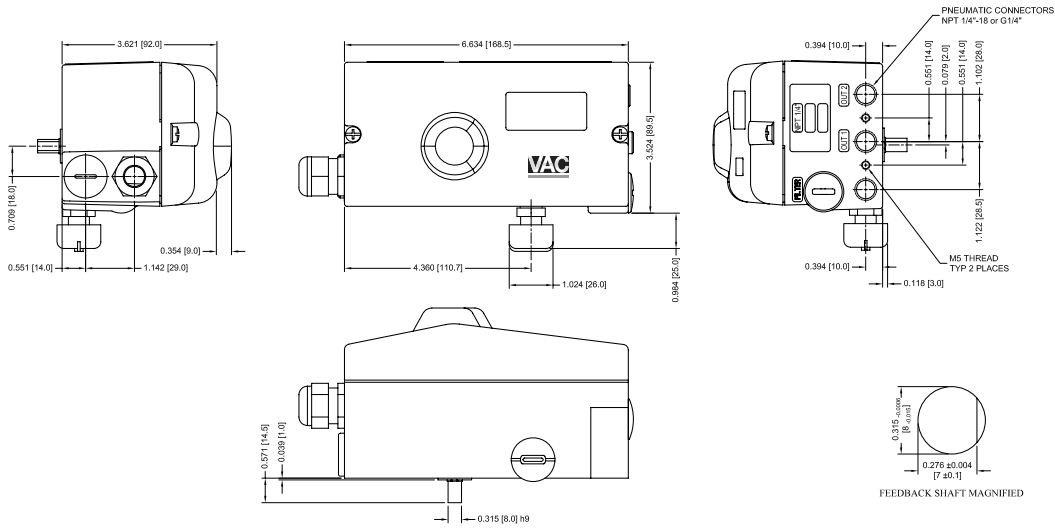
Rotation:	25-120 degrees	Stroke:	.4 to 4" (longer strokes-POA)
Max Air supply	90 PSI	Connections:	1/4" NPT Air 1/2" NPT Cable
Air delivery	6.0 SCFM @ 90 PSI	Air consumption:	≤.015 SCFM
Ambient temperature	-40 to 185° F		
Characteristic curves	– linear, equal %, 1:25, 1:50, 25:1, 50:1 or user configurable 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)
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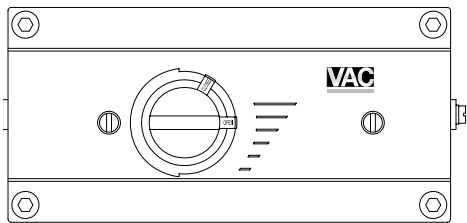
Air Supply-Must be free of oil, water, and dust to DIN/ISO 8573-1 pollution and oil contents according to Class 3 dew point 10 K below operating temperatures.

D400 D400 IS

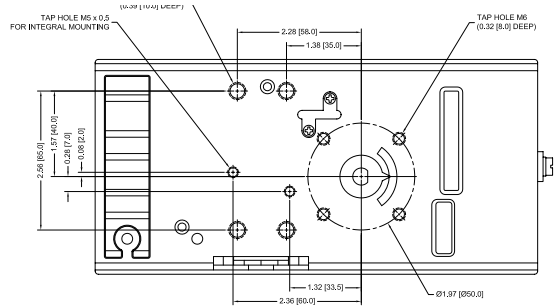


NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS

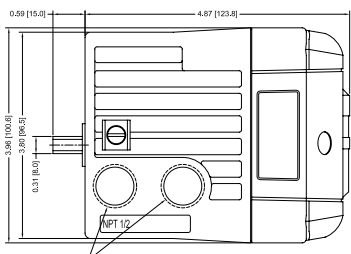
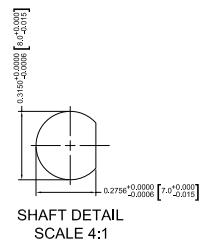
D400 EX



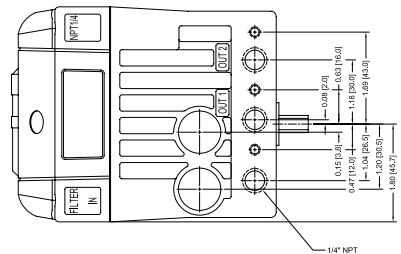
TOP VIEW



BOTTOM VIEW



LEFT SIDE VIEW



RIGHT SIDE VIEW



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