





SKU: PC4702

-  VOLT V Sector Pneumatic Control Ball Valve PN16 / ANSI 150
-  VOLT V Sector Pneumatik-Regelkugelhahn PN16 / ANSI 150
-  VOLT Control del balón Sector V de válvulas neumáticas PN16 / ANSI 150
-  VOLT Contrôle de balle V Secteur valve pneumatique PN16 / ANSI 150

Valves[™]
O N L I N E

- 1/2" - 6" V Port Flanged Ball Valve with Pneumatic Actuator and Positioner
- 1/2" - 6" V Anschluss mit Flansch Kugelhahn mit pneumatischem Antrieb und Stellungsregler
- 1/2" - 6" V Puerto de la válvula de bola con bridas con actuador neumático y posicionador
- 1/2" - 6" V Port Flanged Ball Valve avec actionneur pneumatique et positionneur

**V Port Flanged
Electro-Pneumatic
Control Valve**

PN16 / ANSI 150



Features

- High Flow Rates
- No solenoids needed
- High Temperature Seats
- Spring Return pneumatic actuator
- Flanged end connections to PN16 or ANSI 150
- Easy to set up self auto tune positioner

Description

VALVE / ACTUATOR

V-port ball valve that provides accurate control with high flow and low pressure drop. The series 90D heavy duty, two piece, stainless steel ball valve is fitted onto our HP spring return (Spring Open on request) pneumatic actuator. Readily available, offering strength and reliability, making them perfectly suited for many applications. The HP range of pneumatic actuators are manufactured from aluminium and have a hard anodised finish. The ball valve is offered with end connections for either PN16 or ANSI 150 flanges. Seats are a 50% stainless steel and 50% PTFE filled mix. A selection of V sector balls are offered to meet your flow requirements.

CONTROL POSITIONER (OPTIONAL)

To control your process we have coupled a superior state of the art positioner, that fits neatly on top of the pneumatic actuator. This robust and compact unit is designed for rotary or remote control. The digital electro-pneumatic positioner can be operated with the usual current and voltage standard signals. Pilot solenoids are built into the unit and programming is simple. Additionally to the digital graphic display the valve opening is signaled by a mechanical indicator element.



Description

Volt V-series, High Performance Stainless Steel Modulating ball valves, fitted to a quality pneumatic actuator and controlled by a well designed positioner for the control of all your process flow requirements. Easy to set up accepting 4-20mA or 0-10 volt input signals. Sizes range from 1/2" - 6" in Flanged 150 # & PN16



Beschreibung

Volt V- Serie , High Performance Edelstahl Stetige Kugelhähne , zu einem Qualitäts pneumatischen Antrieb montiert und durch eine gut gestaltete Positionierer für die Steuerung all Ihrer Prozessablauf Anforderungen gesteuert. Einfach akzeptieren 4-20mA einzurichten oder 0-10 Volt Eingangssignalen . Die Größen reichen von 1/2 " - 6" in Flansch 150 # & PN16







Descripción

V - Series V, válvulas de bola de modulación de alto rendimiento de acero inoxidable, montados en un actuador neumático de calidad y controlados por un posicionador bien diseñado para el control de todas sus necesidades de flujo de proceso. Fácil de configurar aceptar señales de entrada 0-10 voltios o 4-20 mA . Los tamaños varían desde 1/2 " - 6" con brida de 150 # y PN16



Description

Volt V -series, haute performance en acier inoxydable robinets à tournant sphérique modulante , équipant un actionneur pneumatique de qualité et contrôlés par un positionneur bien conçu pour le contrôle de tous vos besoins de flux de processus. Facile à mettre en place d'accepter les signaux d'entrée 0-10 volts ou 4-20 mA . Les tailles vont de 1/2 " - 6" Flanged 150 # & PN16

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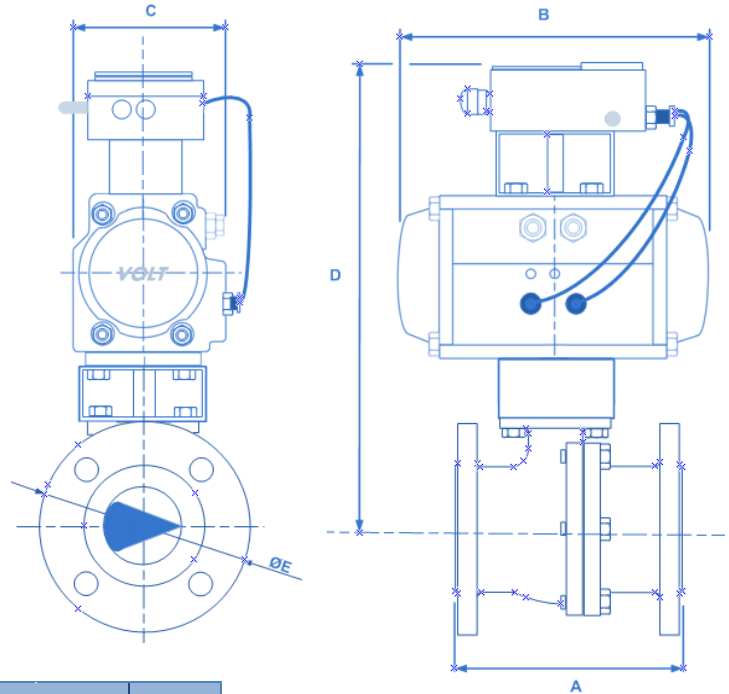
V Sector Control Ball Valve - Pneumatic

V SECTOR BALL

The "V" port control valves are available from Valves Online with 30° V or 60° V and V90° V notch.

V port valves offer better control than traditional round ported ball valves. The control port is cast and machined into the ball (not in the seat), which allows better flow characteristics and the need to replace seats. The 30° option allows for finer control and the 60°- 90° offers a larger Flow (Cv) in addition to an accurate controlled flow. **Sizing of valves must be used in conjunction with our CV coefficient of flow chart attached.**





Pneumatic actuator has been sized on a minimum pilot pressure of 5.5-7 Bar



90D-10 ANSI 150 Spring Return Dimensions							Weight Kg
Size	SR Act.	A	B	C	D	E	
1/2"	HP75	108	210	96	321	96	3.1
3/4"	HP88S	117	247	108	339	108	3.48
1"	HP88S	127	247	108	347	123	4.78
1 1/4"	HP100S	140	268	123	371	141	6.61
1 1/2"	HP115S	165	316	141	410	151	9.8
2"	HP125S	178	347	151	435	172	14.17
2 1/2"	HP145S	190	414	172	475	190	21.2
3"	HP160S	204	467	190	508	206	30
4"	HP180S	229	497	206	568	228.6	44.2
5"	HP211S	356	700	236	639	254	88.2
6"	HP212S	394	1022	236	656	279.4	107.7

90D-40 PN16 Spring Return Dimensions							Weight Kg
Size	SR Act.	A	B	C	D	E	
1/2"	HP75	115	210	96	323	95	3.6
3/4"	HP88S	120	247	108	341.7	105	4.3
1"	HP88S	125	247	108	347	115	5.77
1 1/4"	HP100S	130	268	123	371	140	9.18
1 1/2"	HP115S	140	316	141	410	150	10.88
2"	HP125S	150	347	151	435	165	16.1
2 1/2"	HP145S	170	414	172	475	185	20.68
3"	HP160S	180	467	190	508	200	28.5
4"	HP180S	190	497	206	568	220	38.55
5"	HP211S	325	700	236	639	250	85.6
6"	HP212S	350	1022	236	656	285	95.88

The V segment ball valve is ideal for use in commercial and industrial process applications. Designed for maintaining flow rates for continuous or batch operation, controlling the pressure of liquid filling lines, discharge temperature of a heat exchangers that have a steam feed line.

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V Sector Control Ball Valve - Pneumatic





Flow in M3/h based on 0.5 bar pressure drop

KV Calculator for Liquids												
Valve Size	Ball Angle	0%	15%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1/2"	30	0	0.0865	0.0865	0.173	0.2595	0.4325	0.692	0.9515	1.384	1.903	2.249
	60	0	0.0865	0.0865	0.2595	0.4325	0.7785	1.211	1.73	2.8545	3.806	5.1899
	90	0	0.0865	0.173	0.346	0.519	0.7785	1.2975	1.903	3.287	4.671	5.9685
3/4"	30	0	0.0865	0.173	0.4325	0.6055	0.9515	1.557	2.076	2.8545	3.8925	4.671
	60	0	0.0865	0.173	0.6055	0.865	1.4705	2.422	3.46	5.6225	7.785	10.3799
	90	0	0.173	0.346	0.692	1.038	1.73	2.6815	3.9789	6.92	9.7745	12.11
1"	30	0	0.0865	0.2595	0.692	1.1245	1.9895	3.0275	4.41149	8.477	7.3525	8.65
	60	0	0.173	0.346	0.9515	1.557	2.941	4.5845	6.8335	10.6395	13.2345	18.165
	90	0	0.173	0.519	1.557	2.941	4.4115	7.0065	9.861	13.84	18.165	25.085
1.1/4"	30	0	0.173	0.346	0.9515	1.73	3.2005	4.7575	6.92	8.65	11.245	12.975
	60	0	0.173	0.519	1.557	2.595	4.7575	8.2175	11.072	16.435	22.49	33.735
	90	0	0.2595	0.692	1.73	4.325	6.92	12.11	16.435	24.22	33.735	47.575
1.1/2"	30	0	0.2595	0.519	1.384	2.595	4.325	6.4875	9.515	12.11	14.705	17.3
	60	0	0.346	0.692	2.1625	3.46	6.92	11.245	16.435	23.355	34.6	44.98
	90	0	0.346	0.7785	3.0275	6.055	11.245	17.3	26.815	36.33	54.495	67.47
2"	30	0	0.346	1.038	3.287	5.19	8.65	12.975	19.895	26.815	37.195	51.9
	60	0	0.346	1.297	3.979	7.785	14.2725	23.355	33.735	47.575	71.795	95.15
	90	0	0.4325	1.73	5.19	10.38	19.03	30.275	38.925	60.55	90.825	116.775
2.1/2"	30	0	0.346	0.865	3.46	6.92	10.38	15.57	24.22	32.005	53.63	64.875
	60	0	0.346	1.297	4.325	8.65	18.165	29.41	45.845	64.875	89.095	129.75
	90	0	0.4325	1.4705	6.055	12.11	24.22	41.52	60.55	91.69	138.4	188.57
3"	30	0	0.4325	1.04	3.46	6.92	12.11	19.895	28.5449	39.79	56.225	70.9299
	60	0	0.4325	2.1625	5.19	12.11	21.625	34.6	56.225	78.715	110.72	142.725
	90	0	0.6055	3.0275	6.92	15.57	30.275	51.9	77.85	116.775	177.325	268.15
4"	30	0	0.519	1.73	5.19	12.975	25.085	41.5199	61.415	86.5	112.45	137.535
	60	0	0.6055	2.595	9.515	21.625	34.6	51.035	77.85	121.965	183.38	307.94
	90	0	0.865	3.0275	13.84	34.6	64.875	108.125	164.35	255.175	382.33	579.55
6"	30	0	0.7785	2.768	12.11	28.545	51.9	89.095	134.075	190.3	242.2	302.75
	60	0	1.73	4.325	19.03	51.9	95.15	164.35	246.525	359.84	506.89	692
	90	0	2.595	6.92	30.275	77.85	138.4	242.2	367.625	562.25	839.05	1280.2

To Select the flow you require on our V sector ball, you should aim for looking on the chart at between 70% and 80% open for your maximum flow (this is a rough way of sizing and to be correct we would prefer it, if you contacted our technical sales to size your valve correctly). So for example if you are looking for a flow of 7 m3/h we would choose the 60Deg ball size 1" at 70% fully open-as shown below.

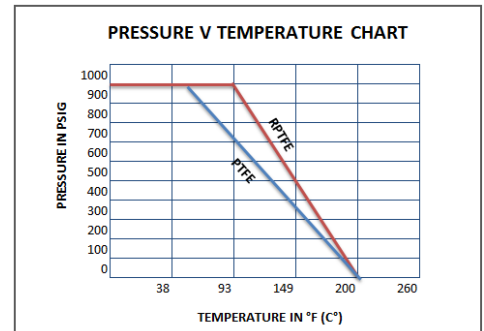
3/4"	60	0	0.0865	0.173	0.6055	0.865	1.4705	2.422	3.46	5.6225	7.785	10.3799
	90	0	0.173	0.346	0.692	1.038	1.73	2.6815	3.9789	6.92	9.7745	12.11
1"	30	0	0.0865	0.2595	0.692	1.1245	1.9895	3.0275	4.41149	8.477	7.3525	8.65
	60	0	0.173	0.346	0.9515	1.557	2.941	4.5845	6.8335	10.6395	13.2345	18.165
	90	0	0.173	0.519	1.557	2.941	4.4115	7.0065	9.861	13.84	18.165	25.085
	30	0	0.173	0.346	0.9515	1.73	3.2005	4.7575	6.92	8.65	11.245	12.975

Flow Coefficients Kv
Measured in M₃/h of water
at 20°C based on 0.5 bar
pressure drop

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V Sector Control Ball Valve - Pneumatic

V - Sector Ball Valve Materials	
Body	CF8M
End Cap	CF8M
Ball	SS 316
Seat	50% SS + 50% PTFE
Joint Gasket	PTFE
Stem Seal	RTFE
Stem	SS 316
Gland packing	PTFE
Bolt / Nut	SS 304
Pressure Range	1/2" -6" PN16/ANSI150
Temperature Range	- 20°C to + 200°C



Actuator Details	
Working Pilot Pressure	2.5 - 8 Bar (sized at 6 bar)
Actuation	Single Acting
	Double Acting
Rotation	Anti Clockwise Opening
Movement	90° (Adjustment 5% each end)

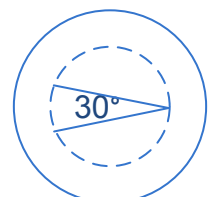
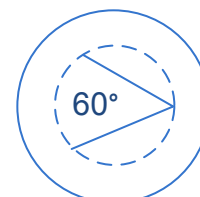
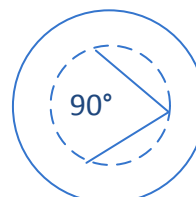
Unit supplied with operation / set up and maintenance manual for the positioner





Electro-Pneumatic Positioner Details	
Body	Aluminium - Plastic Coated
Operating Voltage 24 VDC	ASTM A105
Input	4-20mA and 0 to 5/10 Volt
Power Consumption	<5 W
Ambient Temperature	-25°C to + 80°C
Protection	IP65
Graphic Display	Language Options (Backlight)
Analogue Feedback	4-20mA, 0-20mA, 0-10V, 0-5V
Pilot Solenoid	Internal

Electric Actuated Versions Available Type SKU : EC 4701

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The "V" port control valves are available from Valves Online with 30° V or 60°V notch. V port valves offer better control than traditional round ported ball valves. The control port is cast and machined into the ball (not in the seat), which allows better flow characteristics and the need to replace seats. The 30° option allows for finer control and the 60° offers a larger Flow (Cv) in addition to an accurate controlled flow. **Sizing of valves must be used in conjunction with our CV coefficient of flow chart attached.**



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V Sector Control Ball Valve - Pneumatic



**For Data See
AP9001**

HPS Pneumatic Spring Return Actuator

*High performance pneumatic
actuator ATEX approved*



**For Data See
BV5118**

MARS Series 90D Flanged PN16/ANSI 150



*V Sector control that match the
performance of a globe valve.*

Analogue Electro Pneumatic Positioner



*Accepting input signals of
4-20 mA and 0-10 Volt
Supply Voltage 24 VDC*

**For Data See
AP9003**

Electro Pneumatic Positioner



*Accepting input signals of
2-20 mA*

**For Data See
AP9011**

Pneumatic Positioner



*Accepting pneumatic input
signals of 3-15 PSI*

**For Data See
AP9010**