

## VP58/59/68 Series FLANGED PNEUMATIC CONTROL VALVES

### SPECIFICATION DATA



### Specifications

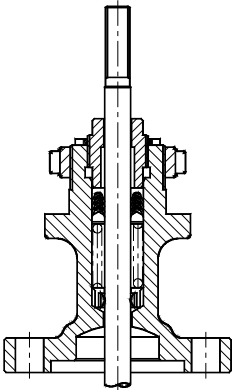
Body Type:	Two Way cast globe valve
Action:	Stem down to close
Nominal pressure rating:	PN16
Operating Temperature:	60°C for VP58 VP68 180°C for VP59
Operating Humidity:	5%~95% RH (non condensing)
Plug:	Pressure balanced, unbalanced plug
Flow characteristic:	Equal percentage, Linear
Rangeability:	50:1
Leakage rate:	≤0.1% of $k_{vs}$
Stroke:	See Dimension table, p3
Body end connection:	Flanged
Body material:	Cast Iron, Cast Steel, Stainless Steel
Seat material:	Stainless Steel
Plug material:	Stainless Steel, Bronze
Stem material:	Stainless Steel
Packing:	Spring loaded PTFE V-rings

Actuator type:	Single acting diaphragm actuator
Action:	Direct or reverse action
Operation Pressure:	20kPa~100kPa 40kPa~120kPa 80kPa~240kPa
Operation Temperature:	-30°C~80°C
Operation type:	A: Air Fail to Close B: Air Fail to Open
Standard Stroke:	10mm~100mm
Dimension:	See Dimension table, p3
Medium temperature & pressure:	2°C~80°C max. 1600kPa 80°C~180°C max. 1300kPa
Air Supply:	400~700kPa
Input Signal:	4~20mA

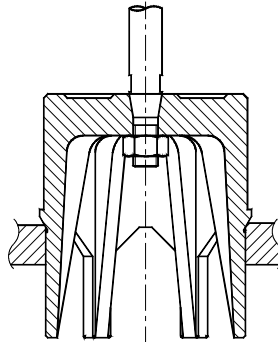
### Features

- Cast iron/steel or stainless steel body with flanged end connection.
- Available in variety of sizes, 1/2 ~ 12" for 2-way, 1/2 ~ 6" for 3-way
- Easy to install and maintain.
- Large capacity, Kvs from 4 to 998.
- On-line interchangeable trim units.
- High dynamic stability.
- Self-alignment of cage and valve plug.
- Noise-Attenuating Trim to help reduce aerodynamic noise.

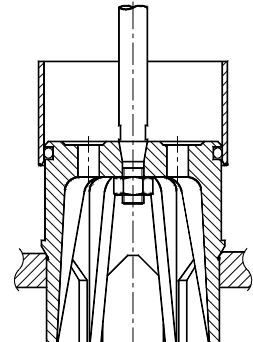
## Construction



Spring loaded PTFE V-rings

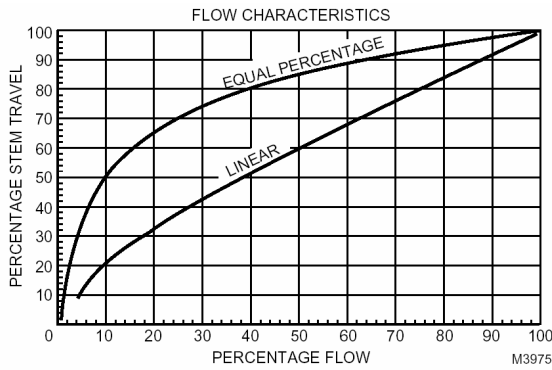


Unbalanced V-Port plug  
For 1/2" ~ 1"



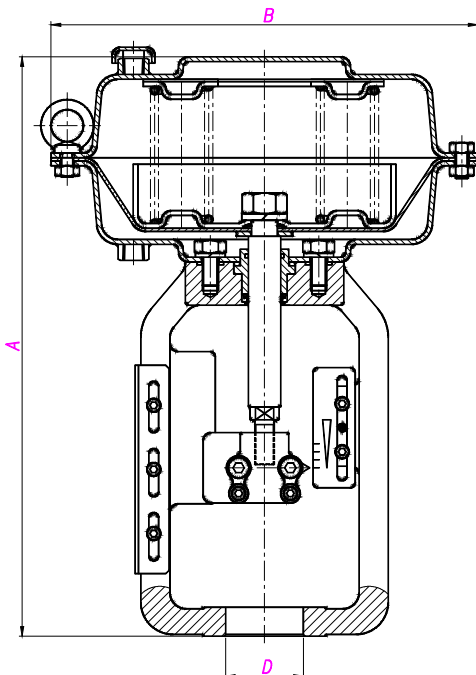
Balanced V-Port plug  
For 1-1/2" ~ 12"

## Flow characteristic



- Linear Characteristics
- Equal Percentage Characteristics
- Quick Open

## Type AD-25 & AD-100 Actuator Diaphragm Pneumatic Actuators



Type AD-25 and AD-100 Diaphragm actuators are designed to provide reliable operation of the VP58/59 valve. It features spring-return action and is reversible between spring open and spring close.

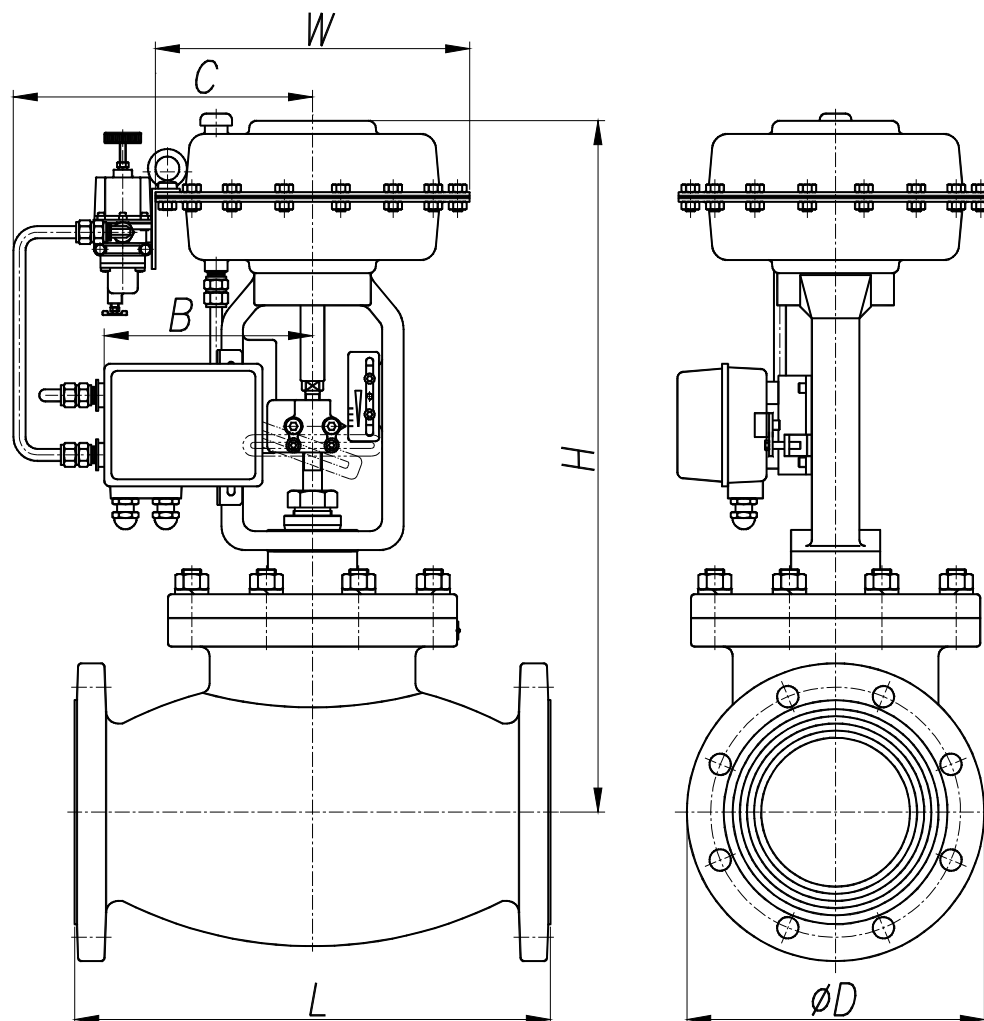
The actuator can be used for on-off or throttling service, with or without a positioner.

Multiple springs determine the bench set; so there is no need for a bench set adjustment.

The actuator diaphragm is made of durable neoprene with high-tension cloth, the pressure rating is 6kg/cm<sup>2</sup>, and able to withstand over 1,000,000 times operating.

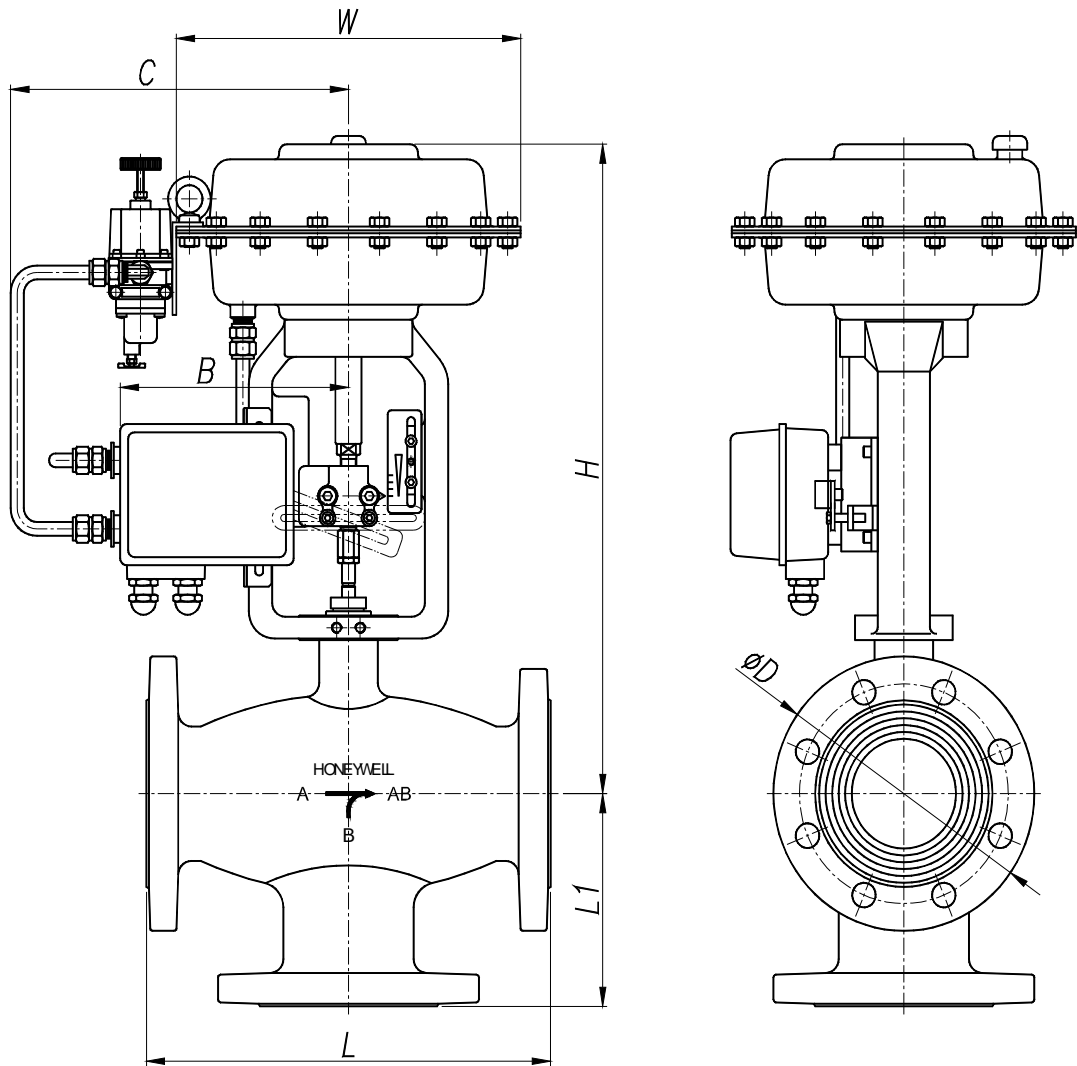
### Dimension:

Model	A	B	D
AD-25	< 510mm	264mm	48mm
AD-100	< 828mm	510mm	72mm



**Dimension:** For Diaphragm Actuator

Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
15	20	25	32	40	50	65	80	100	125	150	200	250	300	
L	130	150	160	180	200	230	290	310	350	400	480	543	673	737
D	95	105	115	140	150	165	185	200	220	250	285	448	580	525
H	582		599	604		622	624	696	729		880	1248	1256	
C	265											335		
W	264											510		
Stroke	20							40		50		80		
Actuator	AD-25											AD100		
Kvs	4.0	6.3	10.0	16	25	40	63	100	160	250	360	703	838	998
Max ΔP kPa	1000			900			800			700				



**Dimension:** For Diaphragm Actuator

Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	
L	130	150	160	180	200	230	290	310	350	400	480	
D	95	105	115	140	150	165	185	200	220	250	285	
H	582			599	604		622	624	696	729		
C						265						
W						264						
Stroke	20								40			
Actuator	AD-25											
Kv	4	6.3	10	16	25	40	63	100	160	250	360	
Max ΔP kPa	1000			900				800				

**A** **B** **C** **D** **E** **F** **G** **H** **I** **J**  
**VP58/59/68** **XXX** **X** **X** **X** **X** **X** **X** **X** **X** **X**

A. Series	
VP58	Pneumatic Control Valve for water
VP59	Pneumatic Control Valve for steam
VP68	Pneumatic Control Valve for 3-way (15~150A)

B. Diameter	
015	1/2" (15mm)
020	3/4" (20mm)
025	1" (25mm)
032	1-1/4" (32mm)
040	1-1/2" (40mm)
050	2" (50mm)
065	2-1/2" (65mm)
080	3" (80mm)
100	4" (100mm)
125	5" (125mm)
150	6" (150mm)
200	8" (200mm)
250	10" (250mm)
300	12" (300mm)

C. End Connection	
J	JIS 10K R.F.
A	ANSI 150# R.F.
P	PN16 R.F.

D. Flow Characteristics	
L	Linear
E	Equal Percentage
O	ON-OFF
Z	Others

E. Body & Bonnet Material	
A	304 stainless
B	316 stainless
D	FC
Z	Others

F. Actuator Type	
A	Air to Open (NC)
B	Air to Close (NO)

Input Signal	
A	4~20mA
Z	Others

J. Limit Switch	
A	Without
B	General Switch, IP65
C	Switch, Flameproof & IP65
D	Switch, Intrinsic safety & IP65
Z	Others

I. Solenoid valve	
A	Without
B	General Solenoid Valve, IP65
C	Solenoid Valve, Flameproof & IP65
D	Solenoid Valve, Intrinsic safety & IP65
Z	Others

H. Air Set	
A	Without
B	Mounted
Z	Others

G. Positioner	
A	Without
B	E/P, (Electro-Pneumatic Positioner), IP54
C	E/P, Flameproof & IP66
D	E/P, Intrinsic Safety & IP66
E	E/P With 4-20mA Feedback
Z	Others

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