

Pressure Independent Control Valve

Three Functions Type PN16

Model: SD-9000 Series

Features & Benefits

- ▶ Three function in one:
Electric Adjustment + Pressure Independence + Static Balancing.
- ▶ A linear flow control can be realized.
- ▶ Uses the straight travel plug disc, lower torque.
- ▶ Adjustable Kvs, maximum flow can be controlled.
- ▶ Large rang of differential pressure control and exact flow control precision.
- ▶ Actuator with multiple input and output signal selection, convenient for conversion.
- ▶ The actuator can automatic calibrate stroke, high precision signal feedback.
- ▶ Block protection prevents the ball from jamming when the valve is not moved for a longer period of inactivity.
- ▶ Safe mode: the actuator will be power off automatically once the actuator shell was opened.
- ▶ All the terminal connector were removable.



Product Specifications:

Working Pressure	PN16
Working Temperature	-5°C - 85°C
Suitable Medium	Water, Ethylene Glycol, etc.
Flange Standard	EN 1092-2
Face to Face Standard	EN 558-1

Actuator Specifications:

Working Electric Voltage	AC24V
Power	4.2VA
Closing Torque	850N
Max. Stroke	20mm
Input Signal	0(2)~10V, 0(4)~20mA
Feedback signal	0~10V
Work Temperature	0~50°C
Protection Grade	IP54

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Product Dimensions:

PICV Series

DN	L	H1	H2	W	D	D1	D2	n-d
65	290	399	177	206	185	145	118	4-19
80	310	399	177	206	200	160	132	8-19
100	350	403	177	206	220	180	156	8-19

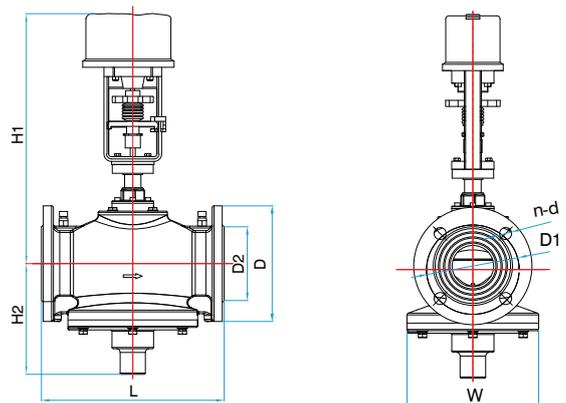
NOTE: Dimensions are in mm

Performance Parameters:

DN	Differential Pressure Range	Minimum Flow	Maximum Flow	Valve Stroke
	KPa	m ³ /h	m ³ /h	Mm
65	30 ~ 400	3.5	16.0	15
80	30 ~ 400	4.0	27.0	15
100	30 ~ 400	9.0	41.0	15
125	30 ~ 400	15.0	50.0	30
150	30 ~ 400	20.0	80.0	30

Drawing Specification

No.	Part	Material
1	Body	Ductile Iron
2	Bonnet	Ductile Iron
3	Seat	Stainless Steel 304
4	Disc	Stainless Steel 304
5	Stem	Stainless Steel 304
6	Scale Bar	Brass
7	Adjusting Nut	Brass
8	Diaphragm	EPDM + Stainless Steel 304
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Safe Model:



Knob (1) not inserted = manual mode

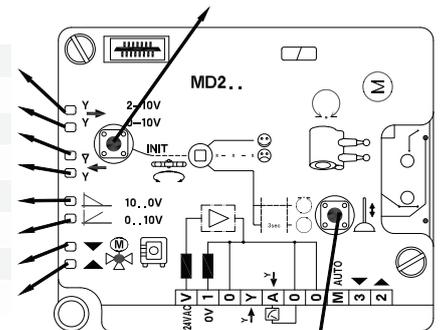
Knob (1) inserted = automatic mode

For safety reasons, the actuator automatically switches to manual mode when the cover is removed. To allow the commissioning technician to test functionality, the actuator can be switched to automatic mode using the included solenoid switch.

Remove the actuator cover and then insert the knob (1) into the PCB (2).

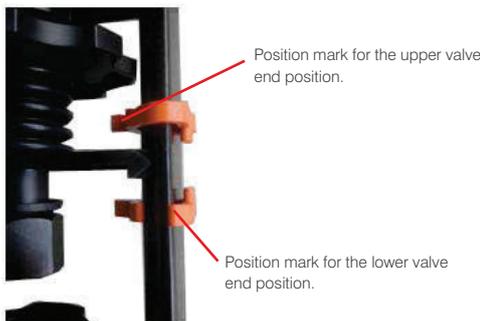
FUNCTION SWITCH:

- 10~2V, 20~4mA
- 10~0V, 20~0mA
- 0~10V Feedback signal inversion
- 10~0V Signal feedback
- Reaction (down full)
- Positive effect (up full)
- Two-way valve settings
- Three-way valve settings

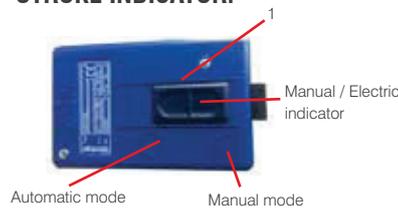


The valve block protection switch: to prevent the valve be blocked after a longer period of inactivity.

STROKE INDICATOR:



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Electric actuator have manual function and automatic function. When manual mode is activated, the extended slide indicator allows this status to be recognized even in poorly lit areas. Now the actuator can be set to the desired valve position on the hand-wheel. After manual mode is switched off, the actuator resumes automatic positioning.

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Miscellaneous Data:

1. Ordering Information

Example: SD-9000-100

- SD-9000 is the part number
- (100) Size

2. Contact Information

For further information on any aspect of the SHIELD Valves products please contact below:

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