

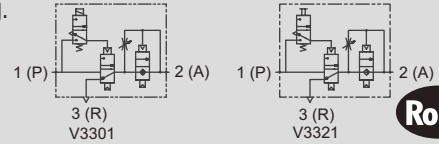
Slow start valve standard white Series

# V3301-W/V3321-W Series

To maintain safety at starting and stopping.

● Port size: Rc1/4 to Rc1/2

JIS symbol



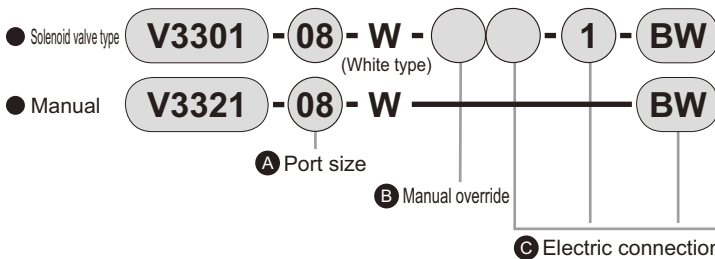
## Specifications

Descriptions		V3301-W/V3321-W		
Operating method		Pilot operated soft spool valve		
Working fluid		Compressed air (excluding ultra dry compressed air) Note 1		
Working pressure range MPa		0.2 to 1.0		
Withstanding pressure MPa		1.5		
Ambient temperature range °C		5 to 60		
Port size	1 (P) / 2 (A) port	Rc1/4	Rc3/8	Rc1/2
	3 (R) port	Rc3/8		
	Gauge port	Rc1/4		
Effective sectional area mm <sup>2</sup>	Low speed air supply	6		
	High speed air supply	40	64	76
	High speed exhaust	50	74	78
Response time		0.2sec. or less		
Lubrication		Oil-free Note 2		
Weight g		V3301-W: 635 V3321-W: 515		
Solenoid valve specifications		V3301-W		
Rated voltage V		100 AC (50/60Hz)	200 AC (50/60Hz)	24 DC
Starting current A		0.076/0.058	0.038/0.030	0.092
Holding current A		0.038/0.029	0.019/0.015	
Power consumption W		2.2/1.7	2.2/1.7	2.2
Temperature rises K		40 or less		
Voltage fluctuation range		±10%		
Insulation class		Class B		
Electric connection		Grommet lead wire, terminal box		

Note 1: Contact CKD when using ultra dry compressed air.

Note 2: Use the turbine oil Class 1 ISO VG32 if lubricated.

## How to order

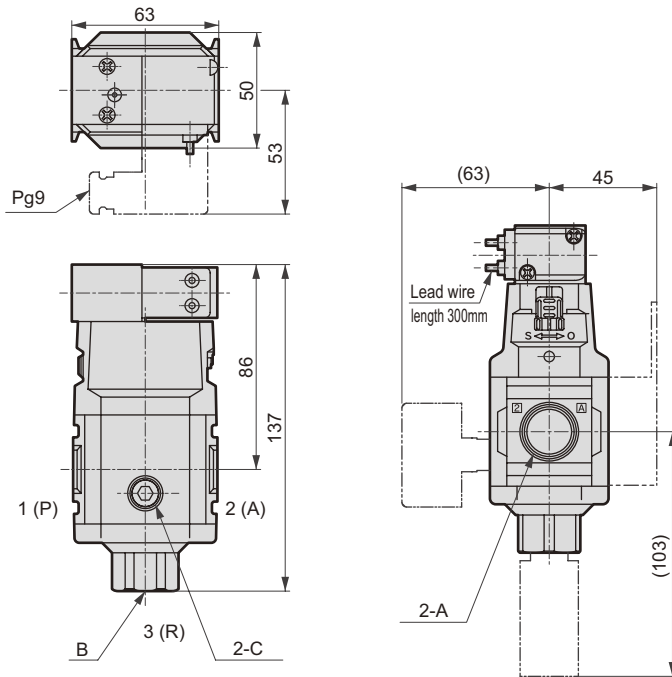


Symbol	Descriptions	
<b>A Port size</b>		
<b>1 (P) / 2 (A) port</b>		
<b>08</b>	Rc1/4	
<b>10</b>	Rc3/8	
<b>15</b>	Rc1/2	
<b>B Manual override</b>		
<b>Blank</b>	Non-locking	
<b>M1</b>	Locking	
<b>C Electric connection</b>		
<b>Blank</b>	Grommet lead wire	
<b>S</b>	Grommet lead wire with surge suppressor	
<b>B</b>	Terminal box	
<b>LS</b>	Terminal box with surge suppressor and indicator light	
<b>D Voltage</b>		
<b>1</b>	100 VAC 50/60Hz	Standard
<b>2</b>	200 VAC 50/60Hz	
<b>3</b>	24 VDC	Option
<b>4</b>	12 VDC	
<b>5</b>	110 VAC 50/60Hz	
<b>6</b>	220 VAC 50/60Hz	
<b>E Attachment (attached)</b>		
<b>Blank</b>	Without attachment	
<b>BW</b>	C type bracket	
<b>G49P</b>	Pressure gauge: G49D-8-P10	
<b>S</b>	Silencer	

⚠ Select the reverse regulator (R\*100-W) or reverse filter regulator (W\*100-W) when installing the V3301-W or V3321-W onto the primary side of the regulator or filter regulator.

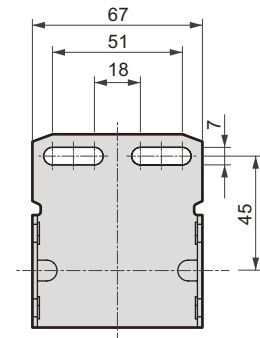
### Dimensions

● V3301-W

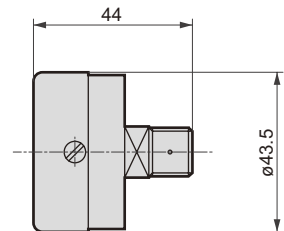


	A	B	C
V3301-08-W	Rc1/4	Rc3/8	Rc1/4
V3301-10-W	Rc3/8		
V3301-15-W	Rc1/2		

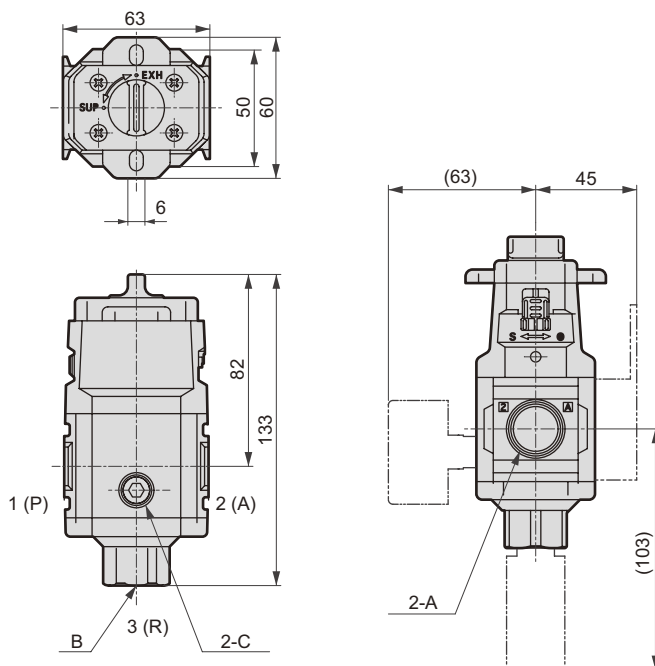
● Bracket: B320



● Pressure gauge: G49D-8-P10

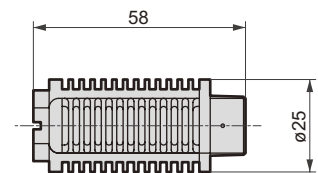


● V3321-W



	A	B	C
V3321-08-W	Rc1/4	Rc3/8	Rc1/4
V3321-10-W	Rc3/8		
V3321-15-W	Rc1/2		

● Silencer: SLW-10A

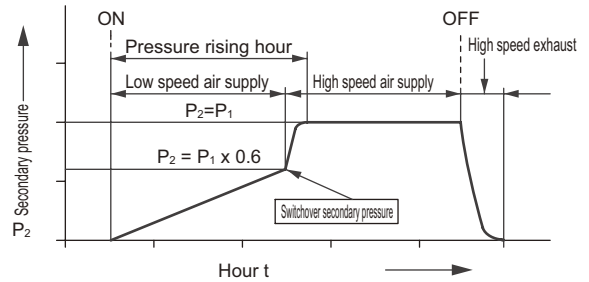


## Operational explanation (refer to the operation characteristics)

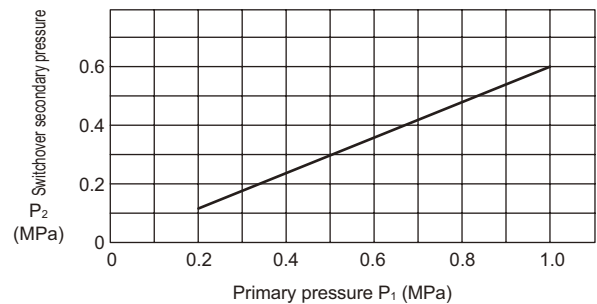
The slow start valve turns on when the solenoid valve is energized or the manual section is set to SUP. The valve turns off when the solenoid valve is deenergized or the manual section is set to EXH.

- (1) First, when the main unit is turned on, the low-speed supply path opens, and the compressed air starts to flow to the secondary side. The secondary pressure gradually starts to rise. The operable cylinders in the unit will start moving at a low speed and thus will not pop out.
- (2) Next, when the secondary pressure exceeds 60% of the primary pressure, the high-speed supply path opens. The secondary pressure suddenly rises to the same pressure as the primary pressure. (Fully open state)
- (3) When the main unit is turned off, high-speed exhaust will start, and the residual pressure in the device will be exhausted.

### ● Operation characteristics



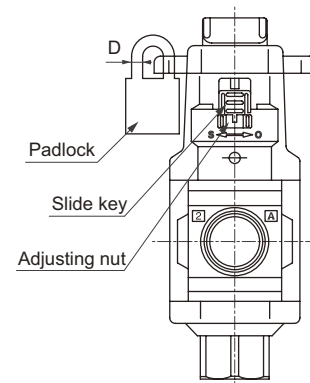
### ● Switchover secondary pressure



## Adjustment method of slow start (refer to the side view)

- (1) Press the slide key up and release the adjustment nut lock.
- (2) Turn the main unit on, and confirm the cylinder operation speed and secondary pressure rise time. Then turn the main unit off.
- (3) Turn the adjustment nut as explained below, and adjust the state.
  - Cylinder pops out → Turn to the S side
  - Low speed operation time is too long → Turn to the O side
 Repeat steps (2) and (3) as necessary, and adjust to the optimum state.
- (4) Align the adjustment nut keyway to the projection on the slide key.
- (5) Press down the slide key and lock the adjustment nut.
- (6) Confirm that the main unit is off.

### ● Side view



## ⚠ Safety precautions

- Note 1: This valve is dedicated for starting and stopping (including emergency stop) the device. As a rule, this valve should not be used for repeated cylinder operation or as a normal 3-way valve.
- Note 2: If the minimum operating pressure of the cylinder, which is to be kept from popping out, is less than 50% of the working pressure, popping out will not be prevented.
- Note 3: The manual override is locked with the manual valve type. Select a padlock with a D dimension of 3.8 to 5.8 mm.
- Note 4: Connect a silencer or exhaust filter, etc., to the exhaust port for safety and sound absorption.