



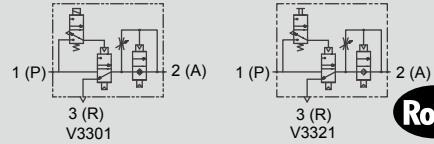
Slow start valve standard white series

# V3301-W/V3321-W Series

Securing safety at starts and stops.

● 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 super dry 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 intake	6		
	High speed intake	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 specification		V3301-W		
Rated voltage V		AC100 (50/60Hz)	AC200 (50/60Hz)	DC24
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 increase K		40 or less		
Voltage fluctuation range		±10%		
Insulation class		B class		
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

● Solenoid valve **V3301** - **8** - **W** - **1** - **BW**  
(White type)

● Manual **V3321** - **8** - **W** - **BW**

**A** Port size

**B** Manual override

**C** Electric connection

**D** Voltage

**E** Attachment

⚠ 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.

Specification for LiB production

(Catalog No.CC-947)

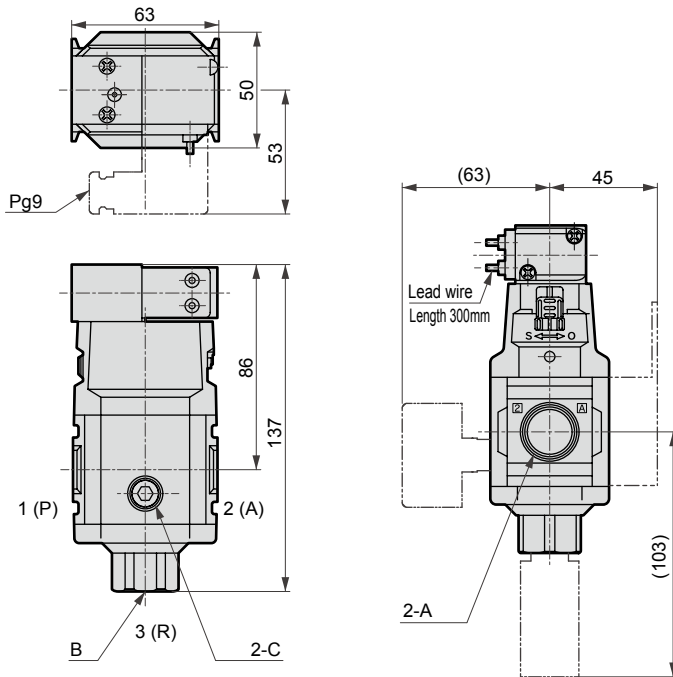
● Specification for LiB manufacturing process

**V3301** - ..... - **P4\***

Symbol	Descriptions	
<b>A</b>	<b>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</b>	<b>Manual override</b>	
<b>Blank</b>	Non-locking type	
<b>M1</b>	Locking type	
<b>C</b>	<b>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 surge suppressor with lamp	
<b>D</b>	<b>Voltage</b>	
<b>1</b>	AC100V 50/60Hz	Standard
<b>2</b>	AC200V 50/60Hz	
<b>3</b>	DC24V	Option
<b>4</b>	DC12V	
<b>5</b>	AC110V 50/60Hz	
<b>6</b>	AC220V 50/60Hz	
<b>E</b>	<b>Attachment</b>	
<b>Blank</b>	No attachments	
<b>BW</b>	C type bracket	
<b>G49P</b>	Pressure gauge: G49D-8-P10	
<b>S</b>	Silencer	

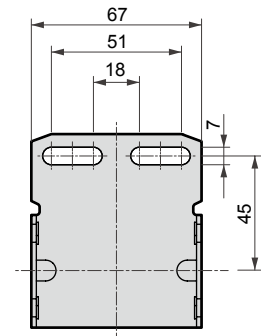
## Dimensions

● V3301-W

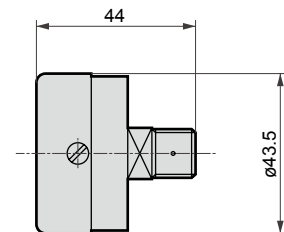


	A	B	C
V3301-08-W	Rc1/4	Rc3/8	Rc1/4
V3301-10-W	Rc3/8		
V3301-15-W	Rc1/2		

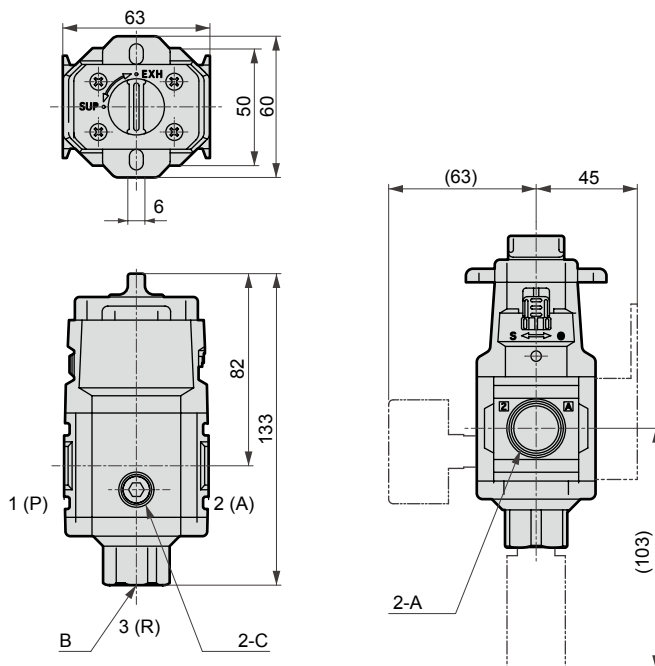
● Bracket: B320



● Pressure gauge: G49D-8-P10

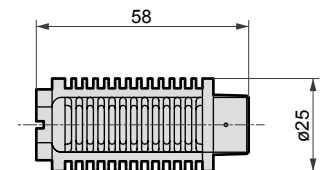


● V3321-W



	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

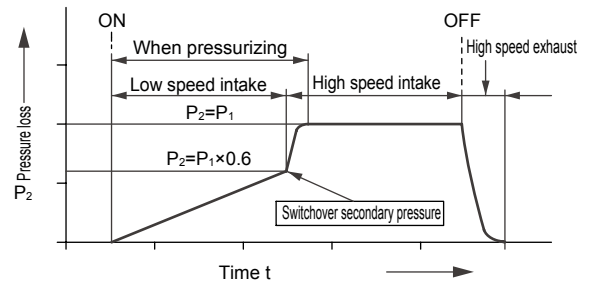


## Operational explanation (refer to operating principles)

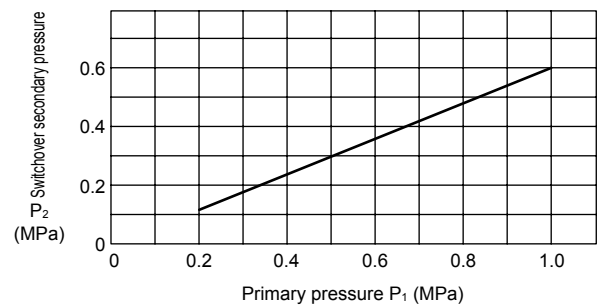
The slow start valve turns on when the solenoid valve is energized or the manual section is set to SUP. The valve turns off when the solenoid valve is deenergized or the manual section is set to EXH.

- (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 secondary pressure exceeds 60% of primary pressure, the high speed supply path opens. Secondary pressure suddenly rises to the same pressure as primary pressure. (fully open)
- (3) When the main unit is turned OFF, high speed exhaust starts and residual pressure in the unit is exhausted.

### ● Operational properties



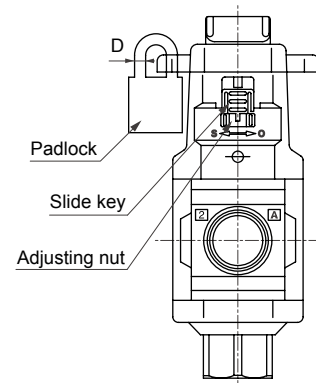
### ● Switchover secondary pressure



## How to adjust slow start function (refer to 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. This valve should not be used for cylinder repeat 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.