



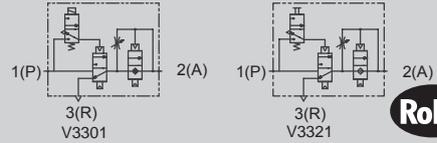
Slow start valve standard white Series

# V3301-W/V3321-W Series

To maintain safety at starting and stopping

- Port size: Rc1/4 to Rc1/2

JIS symbol

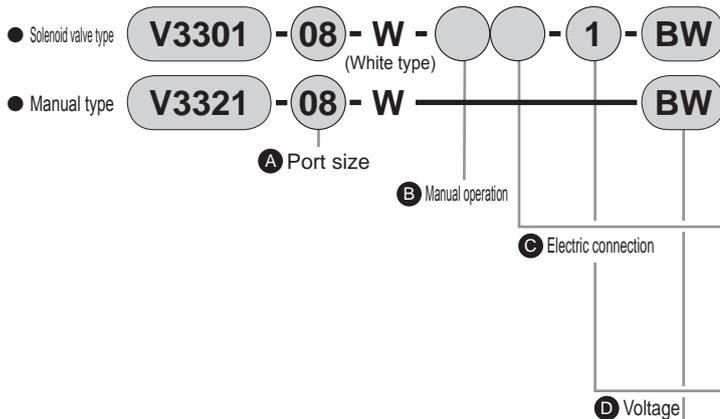


## Specifications

Descriptions		V3301-W/V3321-W		
Operation 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		0.2 sec 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: Consult with CKD when using ultra dry air.  
 Note 2: Use the turbine oil Class 1 ISO VG32 if lubricated.

## How to order



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

## Secondary battery compatible specifications (catalog No. CC-947A)

- Structured for use in secondary battery manufacturing processes

V3301 - ..... - P4\*

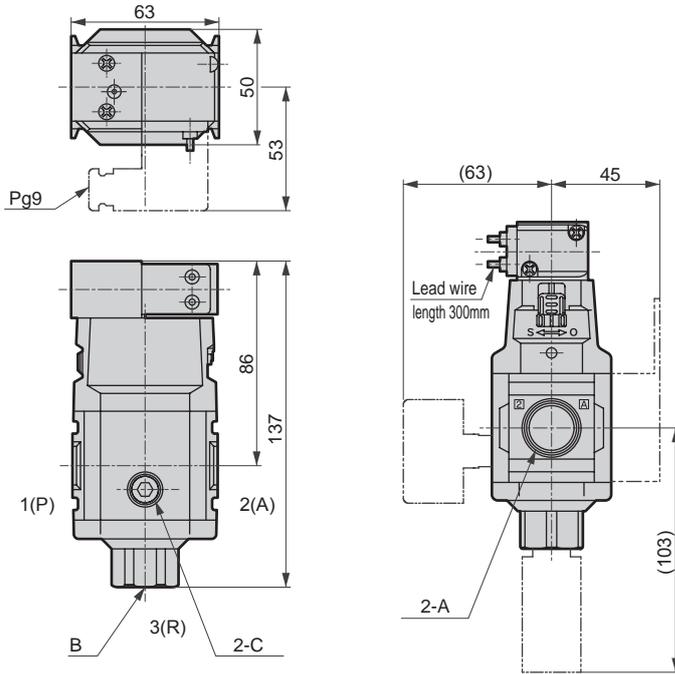
Symbol	Descriptions	
<b>A Port size</b>		
1(P)/2(A) port		
08	Rc1/4	
10	Rc3/8	
15	Rc1/2	
<b>B Manual operation</b>		
Blank	Non-locking	
M1	Locking	
<b>C Electric connection</b>		
Blank	Grommet lead wire	
S	Grommet lead wire, surge suppressor	
B	Terminal box	
LS	Terminal box surge suppressor, light	
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

# V3301-W/V3321-W Series

## Dimensions

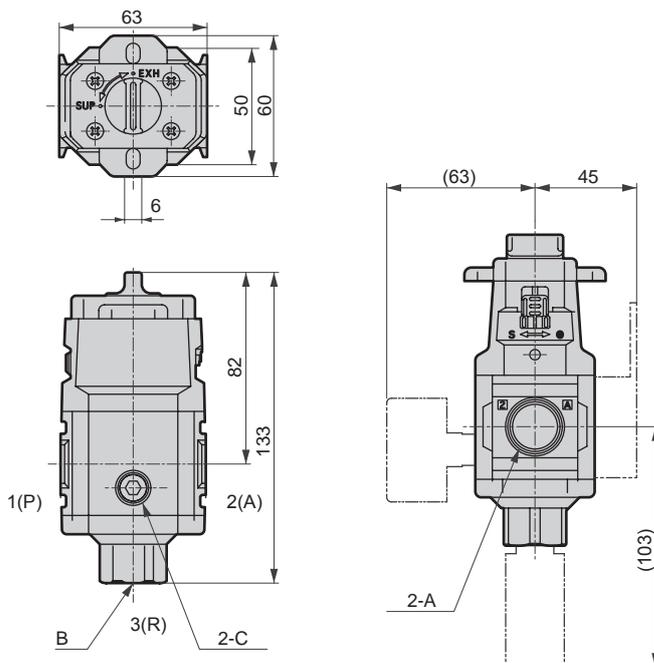
### Dimensions

#### ● V3301-W



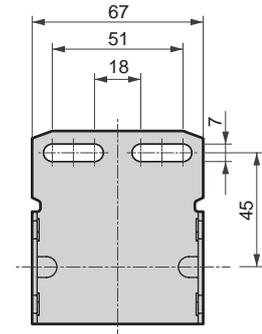
	A	B	C
V3301-08-W	Rc1/4	Rc3/8	Rc1/4
V3301-10-W	Rc3/8		
V3301-15-W	Rc1/2		

#### ● V3321-W

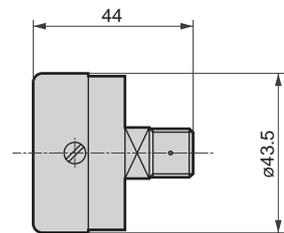


	A	B	C
V3321-08-W	Rc1/4	Rc3/8	Rc1/4
V3321-10-W	Rc3/8		
V3321-15-W	Rc1/2		

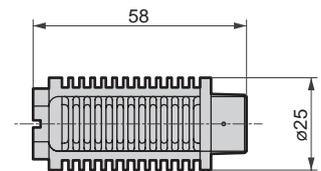
#### ● Bracket: B320



#### ● Pressure gauge: G49D-8-P10



#### ● Silencer: SLW-10A



Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
<b>F.R.L. (Module unit)</b>
F.R.L. (Separate)
Compact F.R.
Precise regulator
<b>F.R.L. (Related products)</b>
<b>Clean F.R.</b>
Electro pneumatic regulator
<b>Air booster</b>
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

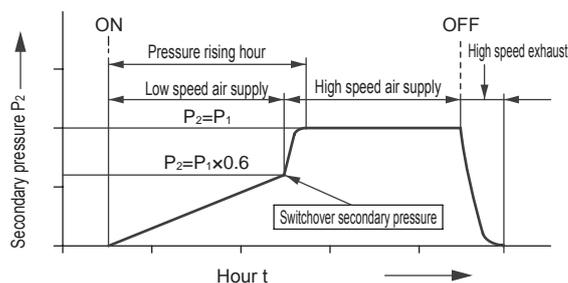
Standard series  
F.R.L. unit

## Operational explanation (refer to the operation characteristics)

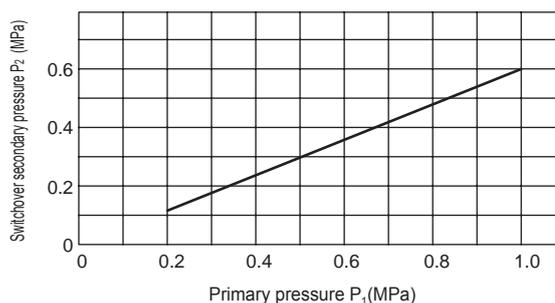
The slow start valve turns ON when the solenoid valve is energized or the manual section is set to SUP. The valve turns OFF when the solenoid valve is deenergized or the manual section is set to EXH.

- (1) First, when the main unit is turned ON, the low speed supply path opens and compressed air starts to flow to the secondary side. Secondary pressure gradually starts to rise. Operable cylinders start moving at a low speed and do 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 state)
- (3) When the main unit is turned OFF, high speed exhaust starts and residual pressure in the unit is exhausted.

### ● Operation characteristics



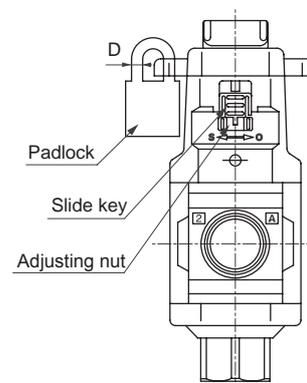
### ● Switchover secondary pressure



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

- (1) Press up the slide key and release the adjusting nut lock.
- (2) Turn the main unit ON, and confirm cylinder operation speed and secondary pressure rise time. Turn the main unit OFF.
- (3) Turn the adjusting nuts 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 adjusting nut.
- (6) Confirm that the main unit is OFF.

### ● Side view



## ⚠ Safety precautions

- Note 1:** This valve is for device starting and stopping including emergency stops. 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 prevented from popping out, is less than 50% of working pressure, popping out is not prevented.
- Note 3:** The manual override is locked with a manual valve. Select a padlock with a D dimension of 3.8 to 5.8mm.
- Note 4:** Connect a silencer or exhaust filter, etc., on the exhaust port for safety and noise reduction.