



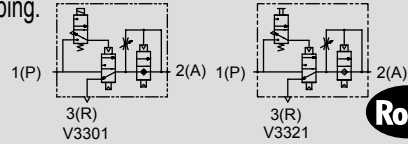
Slow start valve Standard White Series

# V3301-W/V3321-W Series

Ensuring safety when starting and stopping.

● Port size: Rc1/4 to Rc1/2

JIS symbol

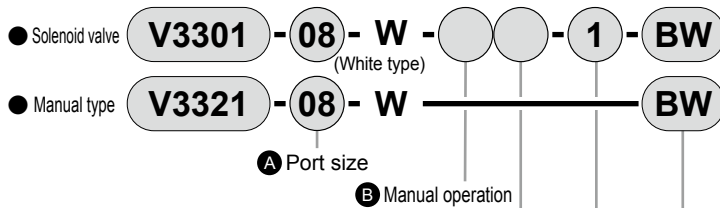


## Specifications

Descriptions		V3301-W/V3321-W		
Actuation		Pilot operated soft spool valve		
Working fluid		Compressed air (excluding ultra-dry compressed air) *1		
Working pressure MPa		0.2 (≈29 psi, 2 bar) to 1.0 (≈150 psi, 10 bar)		
Proof pressure MPa		1.5 (≈220 psi, 15 bar)		
Ambient / fluid temperatures °C		5 (41°F) to 60 (140°F)		
Port size	1(P)/2(A) port	Rc1/4	Rc3/8	Rc1/2
	3(R) port	Rc3/8		
	Gauge port	Rc1/4		
Effective cross-sectional area mm <sup>2</sup>	Lo speed air supply	6		
	Hi speed air supply	40	64	76
	Hi speed exhaust	50	74	78
Response time		0.2 sec or less		
Lubrication		No lubrication *2		
Weight g		V3301-W:635 V3321-W:515		
Solenoid valve specifications		V3301-W		
Rated voltage V		100 AC (50/60 Hz)	200 AC (50/60 Hz)	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 rise K		40 or less		
Voltage fluctuation range		±10%		
Insulation class		Class B		
Electrical connections		Grommet lead wire/terminal box		

\*1: Consult with CKD when using ultra dry compressed air.  
\*2: Use turbine oil Class 1 ISO VG32 for lubrication.

## How to order



## Option weight

\* Add to the weight of the standard accessories. Unit: kg

Code	Attachment		
	BW	G49P	S
V3301	0.17	0.086	0.015
V3321	0.17	0.086	0.015

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

## Specifications for rechargeable battery (Catalog No. CC-1226A)

● Structure compatible with rechargeable battery manufacturing process

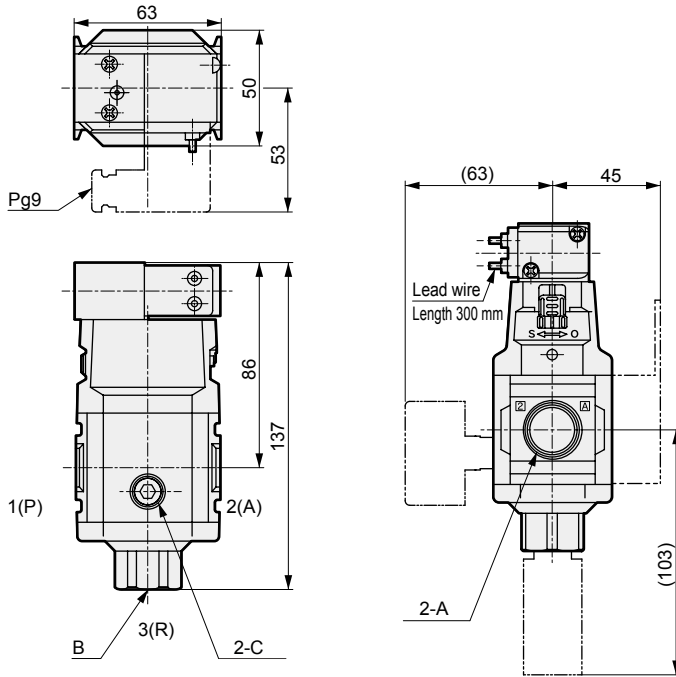
V3301 - ..... - P4\*

Code	Content	
<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 Electrical connections</b>		
Blank	Grommet lead wire	
S	Grommet lead wire with surge suppressor	
B	Terminal box	
LS	Terminal box surge suppressor/light	
<b>D Voltage</b>		
1	100 VAC 50/60 Hz	Standard
2	200 VAC 50/60 Hz	
3	24 VDC	Option
4	12 VDC	
5	110 VAC 50/60 Hz	
6	220 VAC 50/60 Hz	
<b>E Other attachments</b>		
Blank	Without enclosed product	
BW	C type bracket	
G49P	Pressure gauge: G49D-8-P10	
S	Silencer	

### Dimensions

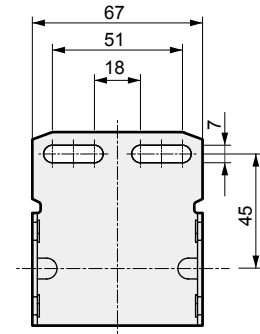


#### ● V3301-W

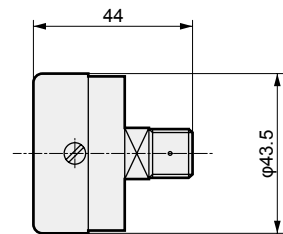


	A	B	C
V3301-08-W	Rc1/4	Rc3/8	Rc1/4
V3301-10-W	Rc3/8		
V3301-15-W	Rc1/2		

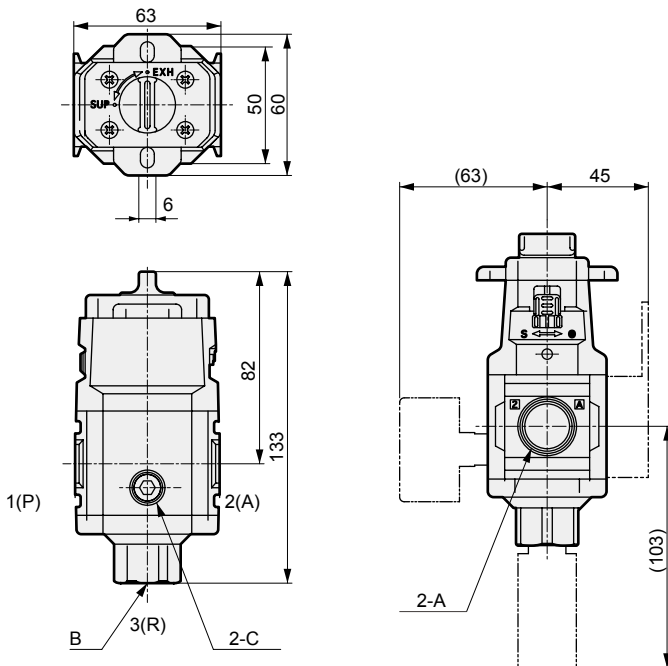
#### ● Bracket: B320



#### ● Pressure gauge: G49D-8-P10

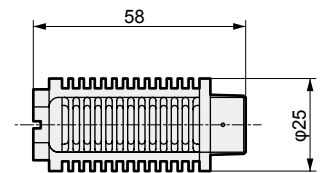


#### ● V3321-W



	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



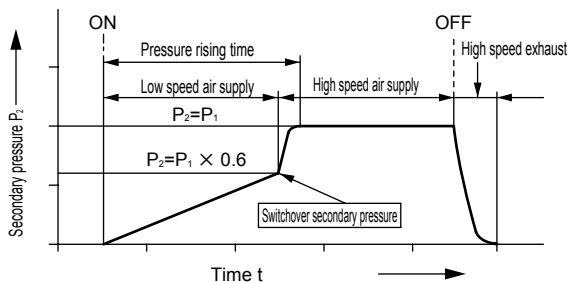
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/ PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/ other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/ Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

# V3301-W/V3321-W Series

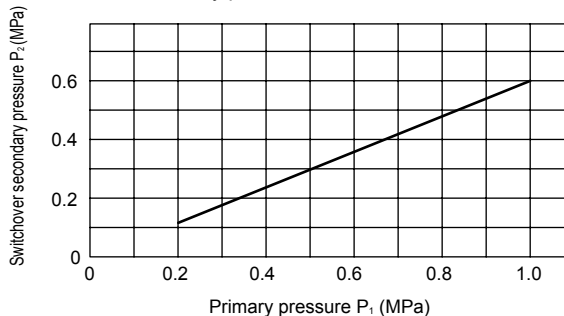
## F.R.L Operational explanation (refer to the operation characteristics)

- F (Filtr)  
R (Reg)  
L (Lub)  
PresSW  
Shutoff  
SlowStart  
FimResistFR  
Oil-ProhR  
MedPresFR  
No Cu/  
PTFE FRL  
Outdrs FR  
F.R.L  
(Related)  
CompFRL  
LgFRL  
PrecsR  
VacF/R  
Clean FR
- 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 body is turned ON, the low speed supply path opens and compressed air starts to flow to the secondary side, as secondary pressure gradually rises. 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 body is turned OFF, high speed exhaust starts and residual pressure in the unit is exhausted.

### ● Operation characteristics



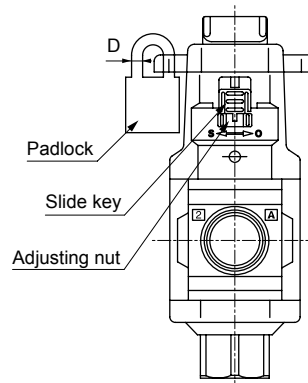
### ● Switchover secondary pressure



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

- ElecPneur  
AirBoost  
SpdContr  
Silncr  
CheckV/  
other  
Jnt/tube  
AirUnt  
PresCompn  
Mech/  
ElecPresSw  
ContactSW  
AirSens  
PresSW  
Cool  
AirFloSens/  
Contr  
WaterRtSens  
TotAirSys  
(Total Air)  
TotAirSys  
(Gamma)  
RefrDry  
DesicDry  
HiPolymDry  
MainFiltr  
Dischrg  
etc  
Ending
- (1) Press up the slide key and release the adjusting nut lock.
  - (2) Turn the body ON, and confirm cylinder operation speed and secondary pressure rise time. Turn the body OFF.
  - (3) Adjust by turning the adjusting nuts as indicated below. 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 ideal state.
  - (4) Align the adjusting nut keyway to the projection on the slide key.
  - (5) Press down the slide key and lock the adjusting nut.
  - (6) Confirm that the body is OFF.

### ● Side view



## ⚠ Safety precautions

- \*1: This valve is specifically designed to start and stop a device. This valve should not be used for cylinder repeat operation or as a normal 3-way valve.
- \*2: The min. working pressure of the cylinder must be less than 50% of working pressure in order to be effective in preventing the popping out.
- \*3: The manual override is locked with a manual valve. Select a padlock with a D dimension of 3.8 to 5.8 mm.
- \*4: Connect a silencer or exhaust filter, etc., on the exhaust port for safety and noise reduction.
- \*5: This valve may not switch to high speed supply if air is consumed or air leakage is found at the OUT side during slow speed supply.
- \*6: Make sure to work on the adjusting nut manually.
- \*7: Keep the working pressure (supply air pressure at 0.4 MPa or higher when the restricting component is near full opening during slow air supply. Otherwise, the supply air pressure may decline and the unit may not switch to the exhaust.