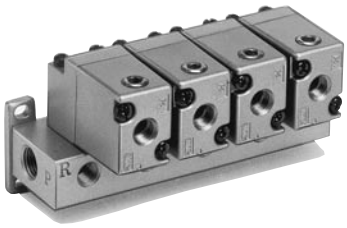
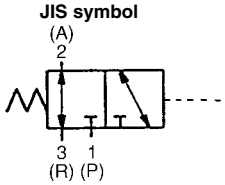
3 Port Air Operated Valve

Series VTA301



JIS symbol



Model

Model (1)	Style	Port size Pc(PT)	Effective area (mm²)(Nℓ/min)(2)	Pilot port size Rc(PT)	Weight (kg) (2)
VTA301-01	Universal porting style	1/8	2.3(127.60)	1/8	0.11 With bracket
VTA301-02	Universal porting style	1/4	3.2(176.67)	1/8	0.11 With bracket

Note 1)Suffix "-B" for bracket equipped model.
Note 2)Value for a single valve unit.

Manifold Model

Model	Applicable manifold model	Accessory (Part No.)
VOA301	Common/Individual EXH	Function plate (DXT060-32-4A)

Specifications

Fluid	Air
Operating pressure range	0 to 1.0 MPa
Pilot pressure range	0.2 to 1.0 MPa
Ambient and fluid temperature	(No freezing) to 50°C
Lubrication	Not required (Use turbin oil class 1 ISOVG32 if lubricating)
Impact/Vibration resistance (1)	150/50 m/s²
Enclosure	Dust proof

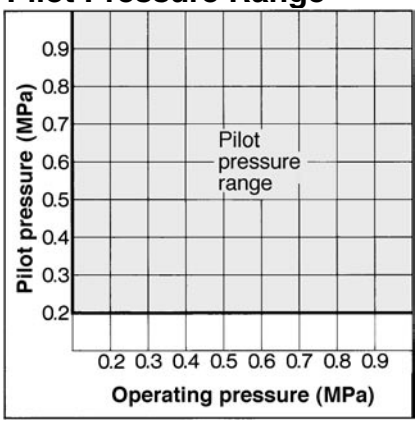
Note 1) Impact resistance: No malfunction occurs on the test using dropping style impact tester, to axis and right angle directions of main valve each one time when energized and de-energized. (Value in the initial stage.)
Vibration resistance: No malfunction occurs on the test with at 45 to 1000Hz, one sweep, to axis and right angle directions of main valve each time when energized and de-energized. (Value in the initial stage.)

⚠ Precautions

Manifold
⚠ Caution

1. Each valve is fixed on the manifold by mounting screw M4-2. Please tighten the bolts properly when valves are reassembled.
   Screw tightening torque: 1.4Nm
2. M4 or equivalent bolts should be tightened evenly to mount the valve to the manifold base.
3. In case of common exhaust style, pressurization or vacuum suction through R port is not possible.
4. In case of 6 stations or more, supply pressure from both sides of P port. In the case of common exhaust style, exhaust air from both sides of R port as well.

Pilot Pressure Range



How to Order Manifold

VVTA300 – □ □ – □

Stations

02	2
⋮	⋮
20	20

EXH port style

1	Individual EXH
3	Common EXH

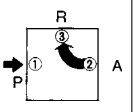
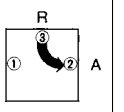
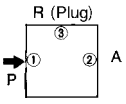
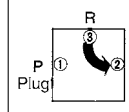
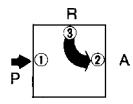
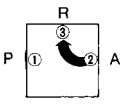
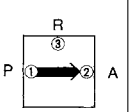
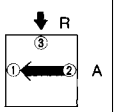
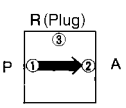
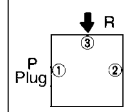
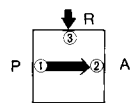
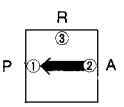
A port size

Symbol	Port size	EXH port style
01	Rc(PT)1/8	Individual EXH Common EXH
02	Rc(PT)1/4	Individual EXH

∗Please indicate valve to be manifolded and blank plate as manifold base style when ordering.

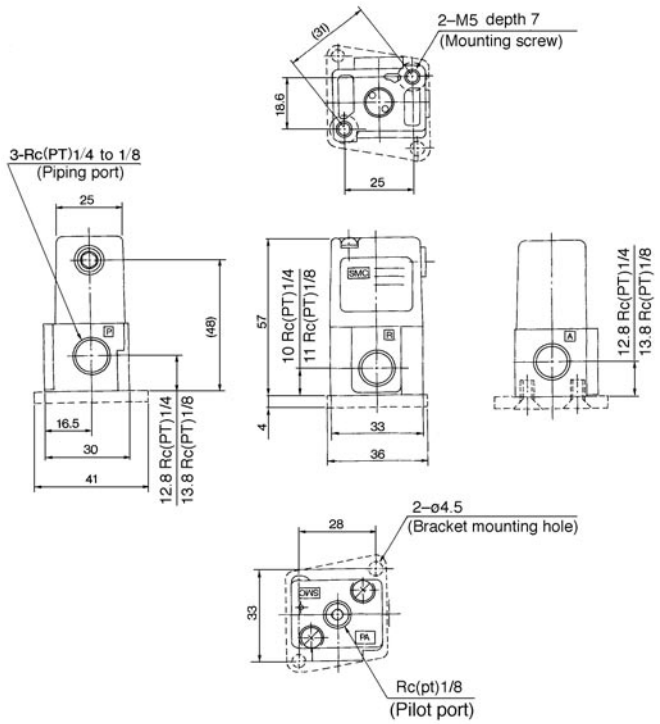
<Example>
VVTA300-051-01 ·····1 pc.
VOA301 ·····4 pcs.
DXT060-51-13A ···1 pc.

6 Valve Functions Available by Changing of Piping Port.

	3 port N.C.	3 port N.O.	2 port N.C.	2 port N.O.	Selector	Divider
Pilot OFF						
Pilot ON						

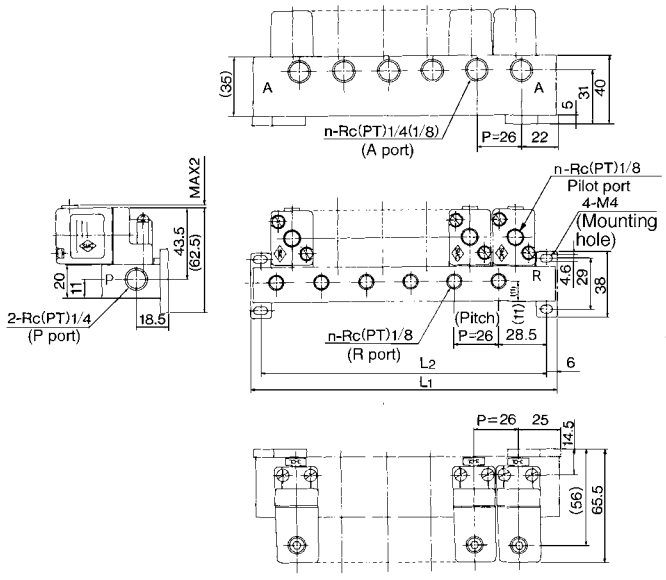
Dimensions/Base mounted

VTA301-□□□

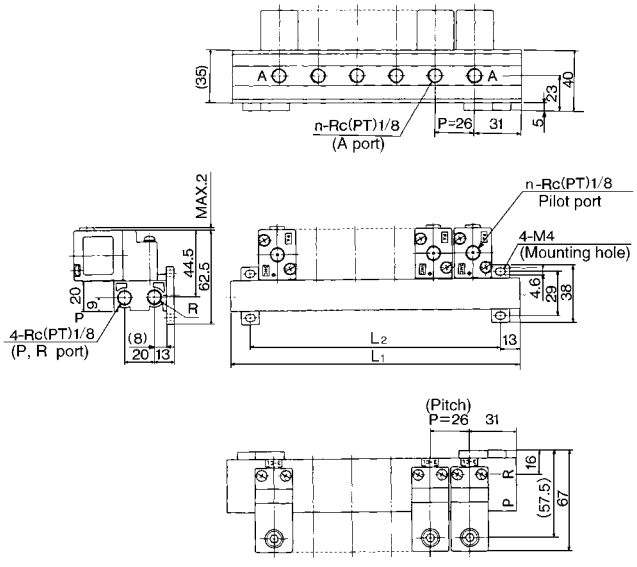


Dimensions/Manifold

VVTA300-□□1



VVTA300-□□3



Individual exhaust model n: Station

L \ n	2	3	4	5	6	7	8	9	10
L1	76	102	128	154	180	206	232	258	284
L2	64	90	116	142	168	194	220	246	272

Calculation formula: L_1=26n+24, L_2=26n+12

Common exhaust model n: Station

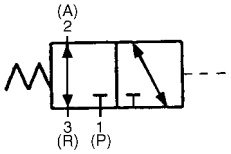
L \ n	2	3	4	5	6	7	8	9	10
L1	88	114	140	166	192	218	244	270	296
L2	62	88	114	140	166	192	218	244	270

Calculation formula: L_1=26n+36, L_2=26n+10

3 Port Air Operated Valve

Series VTA315

JIS symbol



Model

Model	Style	Port size Rc(PT)	Effective area (2) (mm²)(Nℓ/min)	Pilot port size Rc(PT)	Weight (kg)
VTA315-02	Universal porting style	1/4	7.2(392.60)	1/8	0.18

Note 1) Value for a single valve unit. Different specifications apply for a manifold.

Manifold Model

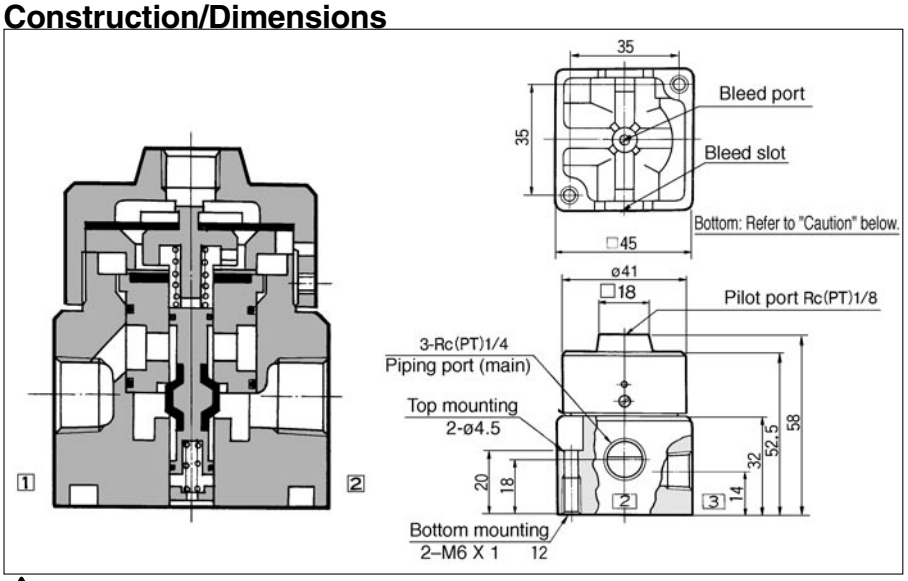
Model	Applicable manifold model	Accessory
VOA315	Common/Individual exhaust	O ring("P-8": 4 pcs.), Bolt(M4 X 0.7 X 28: 2 pcs.)

Specifications

Fluid	Air
Operating pressure range	0 to 1.0 MPa
Pilot pressure range	0.1 to 1.0 MPa
Ambient and fluid temperature	0 (No freezing) to 60°C
Lubrication	Not required (Use turbin oil class1 ISOVG32 if lubricating)
Impact/Vibration resistance (1)	150/50 m/s²
Enclosure	Dust proof

Note 1) Impact resistance: No malfunction occurs on the test using drop impact tester, to axis and right angle directions of main valve, each one time when energized and de-energized. (Value in the initial stage.)
Vibration resistance: No malfunction occurs on the test at 45 to 1000Hz, one sweep, to axis and right angle directions of main valve each time when energized and de-energized. (Value in the initial stage.)

Construction/Dimensions



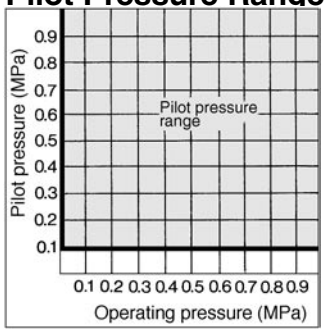
For manifold

⚠ Caution

1.Each valve is fixed on the manifold by mounting screw M4-2. Please tighten the bolts properly when valves are reassembled. Screw tightening torque: 1.4Nm

2.In case of 6 stations or more manifold, supply pressure from both sides of P port. In the case of common exhaust style, exhaust air from both sides of R port as well.

Pilot Pressure Range



⚠ Caution

This valve has a bleed port for main valve at the bottom. Do not shut the bleed port to prevent malfunctions. (When mounted on metal surface, bleed air can go through from bleed port to bleed groove; however, when mounted on rubber surface, bleed air may be blocked by deformation of rubber.)

How to Order Manifold

VVTA32 □ □ □ □

Please indicate valve to be manifolded and blank plate as manifold base style when ordering.

EX)
VVTA320-0501····· 1 pc.
VOA315····· 4 pc.
DXT010-36-2A····· 1 pc.

Piping specifications

Symbol	P	A	R
0	Side	Side	Side
1	Side	Bottom	Side

Stations

02	2stations
···	···
20	20stations

Accessory (Mounting bracket)

O	Without
A	With

Exhaust style

1	Common exhaust
2	Individual exhaust

Same manifold valve as series VVT320 are available.