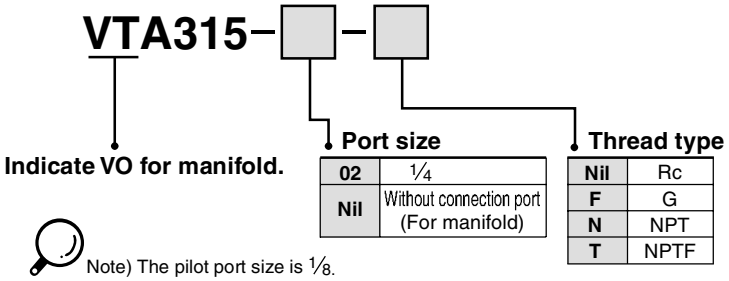
3 Port Air Operated Valve
Series VTA315

How to Order

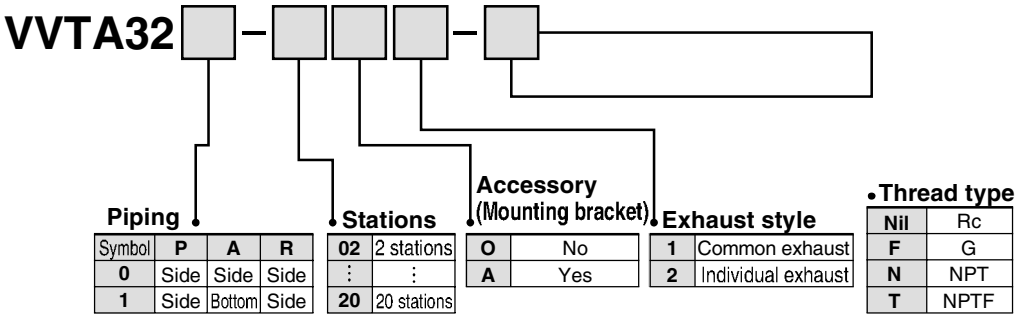


Port size	
02	1/4
Nil	Without connection port (For manifold)

Thread type	
Nil	Rc
F	G
N	NPT
T	NPTF

Note) The pilot port size is 1/8.

How to Order Manifold



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

Stations	
02	2 stations
⋮	⋮
20	20 stations

Accessory (Mounting bracket)	
O	No
A	Yes

Exhaust style	
1	Common exhaust
2	Individual exhaust

Thread type	
Nil	Rc
F	G
N	NPT
T	NPTF

∗ To order valves and blanking plate assembly mounted onto the manifold, list valves and blanking plate assembly with manifold base part number.

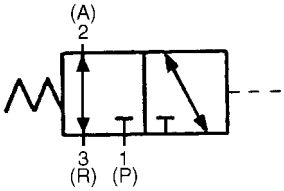
Example) **VVTA320-0501**·····1 pc.
VOA315·····4 pcs.
DXT010-36-2A·····1 pc.

- Manifold bases same as those for Series VVT320 manifold valves are available. Refer to the separate catalog or "Series VT315" in SMC website (http://www.smcworld.com) for the manifold specifications and precautions.
- Port location on the bottom of a single valve for manifold is not related to the indication on the side of the body 1 2 3 (P, A, R). Refer to the separate catalog or Series VT315 on SMC website (http://www.smcworld.com).

Manifold Model

Model	Applicable manifold model	Accessory
VOA315	Common/Individual exhaust	O-ring (“P-8”: 4 pcs.), Bolt (DXT010-66-2: 2 pcs.)

JIS Symbol



Specifications

Fluid	Air
Operating pressure range (MPa)	0 to 1.0
Pilot pressure range (MPa)	0.1 to 1.0
Ambient and fluid temperature (°C)	–10 to 60 (No freezing. Refer to page 5.)
Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubiricated.)
Impact/Vibration resistance (m/s²) Note)	150/50
Enclosure	Dustproof

Note) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve, each one time when pilot signal ON and OFF. (Value in the initial stage)
Vibration resistance: No malfunction occurs on the test with one sweep from 45 to 1000 Hz, to axis and right angle directions of main valve each time when pilot signal ON and OFF. (Value in the initial stage)

Flow Characteristics/Mass

Valve model	Flow characteristics												Mass (kg)
	1→2(P→A)			2→3(A→R)			3→2(R→A)			2→1(A→P)			
	C〔dm³/(s·bar)〕	b	Cv	C〔dm³/(s·bar)〕	b	Cv	C〔dm³/(s·bar)〕	b	Cv	C〔dm³/(s·bar)〕	b	Cv	Grommet
VTA315	1.6	0.30	0.39	1.7	0.39	0.45	1.9	0.38	0.49	1.7	0.36	0.45	0.16
VOA315	1.4	0.12	0.33	1.2	0.18	0.29	1.5	0.16	0.35	1.2	0.13	0.28	

⚠ Precautions

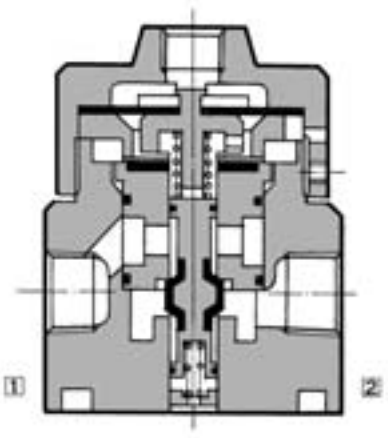
Be sure to read this before handling. Refer to front matters 58 and 59 for Safety Instructions and pages 3 to 7 for 3/4/5 Port Solenoid Valve Precautions.

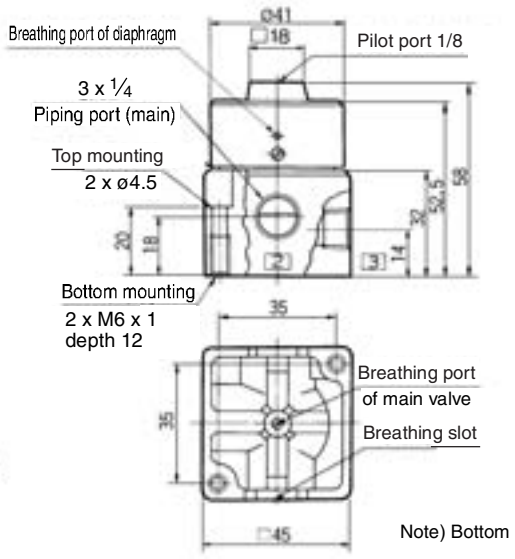
For manifold

⚠ Caution

1. Each valve is fixed on the manifold with two M4 mounting screws. Please tighten the screws properly when valves are reassembled.
   Screw tightening torque: 1.4 N·m
2. When using 6 or more stations on the manifold, supply pressure from both sides of P port.
   In the case of common exhaust type, exhaust air from both sides of R port as well.

Construction/Dimensions





⚠ Caution

1. This valve has a breathing port for the main valve at the bottom. To prevent malfunctions, do not clog the breathing port.
   (When mounted on a metal surface, breathing air can go through from the breathing port to the breathing groove; however, when the valve is mounted on a rubber surface, the breathing air may be blocked by the deformation of rubber.)
2. Take measures to prevent ingress of dust and foreign matter from the exhaust port and other unused ports. Also, take measures to prevent ingress of water and foreign matter from the breathing port of the diaphragm.