







# 3 Port Solenoid Valve Rubber Seal

# VZ100/300/500


## Solenoid Valve Variations

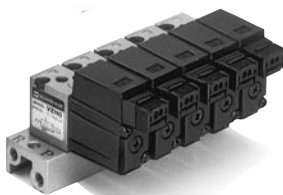
	Series	Port Size	Effective Area mm <sup>2</sup> (N/min)	Actuation	Voltage	Electrical Entry	Option/light and surge voltage suppressor	Manual Override
<b>Body Ported</b>	<b>VZ100</b> 	M5	N.C. P→A: 0.6 (33.37) A→R: 0.9 (49.08)  N.O. R→A: 0.6 (33.37) A→P: 0.6 (33.37)					● Non-locking push style
	<b>VZ300</b> 	M5	3.6 (196.3)		(Standard) 100V AC 50/60Hz 200V AC 50/60Hz 24V DC			
	<b>VZ500</b> 	1/8	9.0 (490.75)	N.C.  N.O.	(Option) 24V AC 50/60Hz 48V AC 50/60Hz 110V AC 50/60Hz 220V AC 50/60Hz 6V DC 12V DC 48V DC	● DIN Terminal (D) 	● Indicator light and surge voltage suppressor	
<b>Base Mounted</b>	<b>VZ300</b> 	1/8	4.5 (245.38)					● Non-locking push style  ● Locking slotted style ● Locking knob style
	<b>VZ500</b> 	1/8, 1/4	9.0 (490.75)					

# VZ100/300/500

## Manifold Variations

Valve Series	A port position	P/R port size	A port size					
			M5	1/8	With one-touch fitting			
					Applicable tube O.D.			
ø4	ø6	ø8						
Body Ported	VZ100	Top	M5 X 0.8	●	—	—	—	—
			1/8	●	—	—	—	—
	VZ300	Top	1/8	●	—	—	—	—
			VZ500	Top	1/8	—	● <sup>(1)</sup>	—
	1/4	—			●	—	—	—
	Base Mounted	VZ300	Bottom	1/8	●	●	—	—
Side			●		●	●	●	—
VZ500		Bottom	1/8	—	● <sup>(1)</sup>	—	—	—
			1/4	—	●	—	—	—
		Side	1/4	—	●	—	●	●

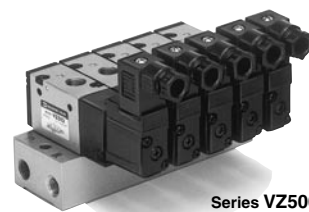
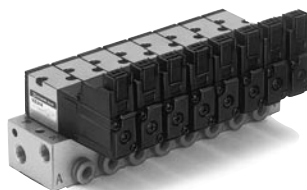
 Note 1) Internal pilot



Series VZ100



Series VZ300



Series VZ500

## ⚠ Precautions

Be sure to read before handling. Refer to p.0-33 to 0-36 for Safety Instructions and common precautions.

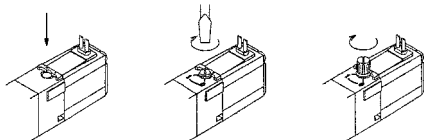
### ⚠ Warning

#### Manual Override

•Manual override is capable in 2 ways, non-locking push style and locking style. (Locking style is for VZ300, VZ500 only)

■The non-locking push style must be pressed in the direction of the arrow. The locking style must be turned in the direction of the arrow.

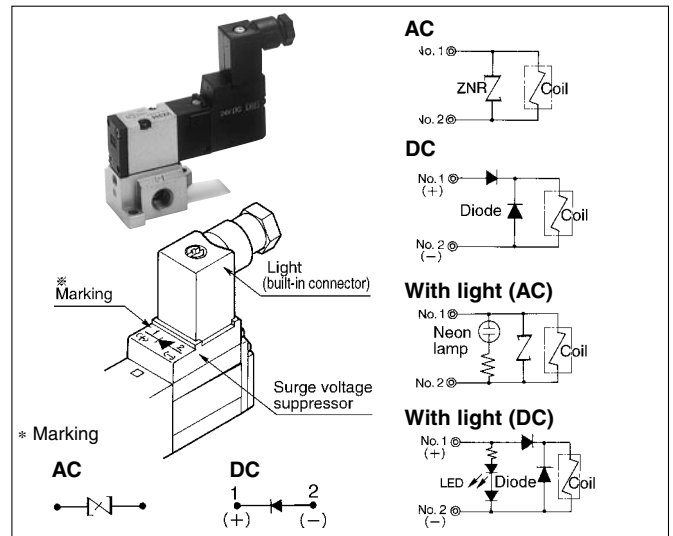
—: Non-locking push style      B: Locking slotted style      C: Locking knob style



When operating the locking style manually, apply torque of 0.2Nm or less.

•During manual operation, the equipment that is connected will operate. Therefore, make sure there are no hazardous conditions before operation.

#### DIN terminal



In the case of DC wiring, connect terminal No.1 of the connector to the positive [+] side, and terminal No. 2 to the negative [-] side. (Refer to the marks on the terminal board.)

#### Common Exhaust for Main Valve & Pilot Valve

##### VZ3□<sup>2</sup><sub>4</sub>M, VZ5□<sup>2</sup><sub>4</sub>M

Exhaust air from the pilot valve will flow to the main valve exhaust port.

- For use in an environment in which exhaust from the pilot valve is undesirable.
- For use when the intrusion of dust from the surroundings must be prevented. Also, make sure the piping will not restrict the flow from the exhaust port.

# VZ100/300/500

## How to Use DIN Connector

### Connection

- 1) Loosen set screw and pull out connector from the terminal block of solenoid.
- 2) Pull out screw and insert a screwdriver into the slit area near the bottom of terminal block to separate block and housing.
- 3) Loosen the terminal screw of the terminal block, place bare end of lead wire into terminal in accordance with the wiring method, and affix it securely with the terminal screw.
- 4) Tighten ground nut to secure the wire.

### Change of electrical entry (orientation)

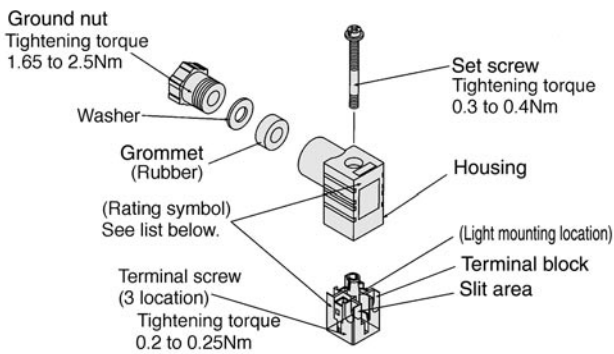
After separating the terminal block and housing, mount the housing at any position (total 4 directions, per 90 degrees), therefore changing electrical entry.  
 \*In the case of indicator light, avoid damaging the light with lead wire.

### Precautions

Plug the connector in or out vertically, never at an angle.

### Applicable cable

Cable O.D.  $\phi 3.5$  to  $\phi 7$   
 (Reference) 0.5mm<sup>2</sup> 2-core and 3-core wires equivalent to JISC3306.



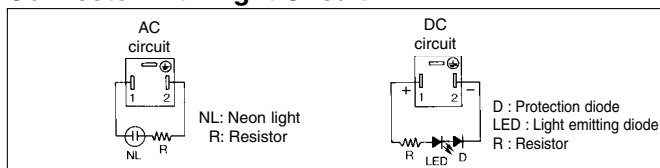
## Connector Part No.

Without light	K31
---------------	-----

### With light

Rated voltage	Symbol	Part No.
100V AC	100V	K33
200V AC	200V	
110V AC	110V	
220V AC	220V	
240V AC	240V	
6V DC	6VD	K32
12V DC	12VD	
24V DC	24VD	
48V DC	48VD	

### Connector with Light Circuit



## How to Order Solenoid Assembly

DXT170-**C**-**5****L****□**-**Q**

### Applicable model

A	VZ110
C	VZ300 Series
E	VZ120

### Indicator light and surge suppressor

-	None
Z*	Indicator light and surge suppressor
S	Surge voltage suppressor

\*Indicator light is not available for grommet style.

### Coil rated voltage

1	100V AC 50/60Hz
2	200V AC 50/60Hz
3	200V AC 50/60Hz
4	220V AC 50/60Hz
5	24V DC
6	12V DC
9	Others

Contact SMC for other voltages (9)

### Electrical entry

D	DIN	With connector
DO	terminal	Without connector

### Flow rate

Refer to the p.0-36 for flow rate.

# 3 Port Body Ported Rubber Seal Series VZ100

## How to Order

**Body Ported** **E** VZ1 **1** 0 — **5** **D** — **M5** — **Q**

Ordering source area code    Actuation    Rated voltage    Electrical entry    Indicator light and surge voltage suppressor    Port size    Option

**Actuation**

1	Normally closed 
2	Normally open 

Regarding VZ120, R port is a supply port.

**Option**

**F:** With foot style bracket

Note) Bracket is not assembled.

**Port size**

<b>M5</b>	M5
-----------	----

**Rated voltage**

1	100V AC 50/60Hz
2	200V AC 50/60Hz
3	110V AC 50/60Hz
4	220V AC 50/60Hz
5	24V DC
6	12V DC
9	Others

Contact SMC for other voltages (9)

**Indicator light and surge voltage suppressor**

-	None
Z*	With indicator light and surge voltage suppressor
S	With surge voltage suppressor

\* DOZ is not available.

**Electrical entry**

**DIN terminal**

**D:** With connector

**DO:** Without connector

**Ordering source area code**

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Protective class class I (Mark: )

# VZ100

**Low Power Consumption:  
1.8WDC**

**Applicable for Vacuum Use  
-100kPa**



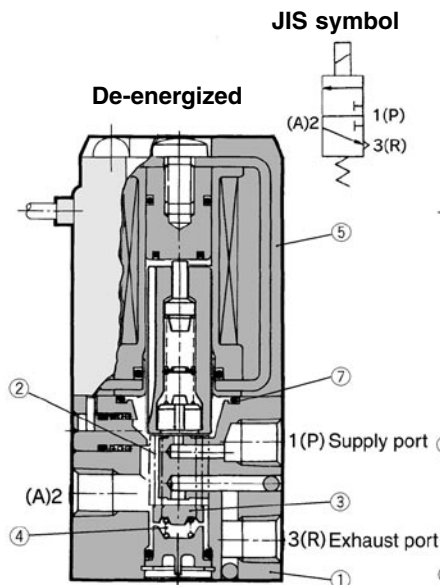
Refer to the p.2.4-8 to 2.4-10 for manifold use.

## Option

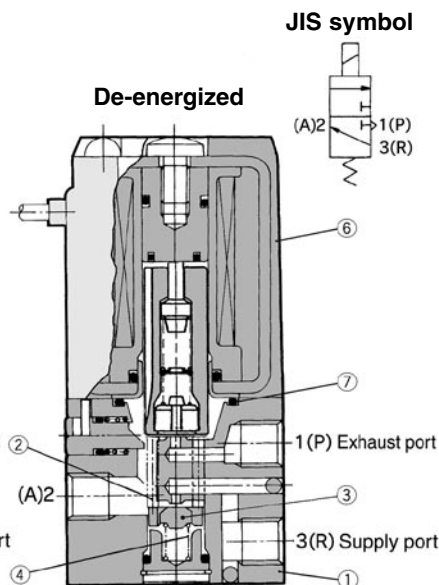
Description	Model No.	Note
Foot style bracket	DXT170-34-1A	With mounting screw (M3 X 6)
Silencer	M5 AN120-M5 (ø8 X 17)	For valve unit (R port), Noise reduction: 21dB or more, Effective orifice 5mm <sup>2</sup>

## Construction

### VZ110 (N.C.)



### VZ120 (N.O.)



## Component Parts

No.	Description	Material	Note
①	Body	ZDC	Platinum silver
②	Push rod	Resin	
③	EXH poppet	NBR	
④	N.C. Back up spring	SUS	
	N.O. poppet spring		

## Replacement Parts

No.	Description	Part No.	Material	Note
⑤	Solenoid Ass'y	DXT170-A-□□□	Epoxy, Stainless steel	VZ110
⑥	Solenoid Ass'y	DXT170-E-□□□	Epoxy, Stainless steel	VZ120
⑦	O ring	13 X 11 X 1	NBR	Common with VZ300

## Specifications

Fluid	Air
Operating pressure range	See below
Ambient and fluid temperature (°C)	Max. 50
Response time (ms) <sup>(1)</sup>	15 or less
Max. operating frequency (Hz)	15
Effective area	See below
Manual override	Non-locking push style
Lubrication	Non-lube
Mounting position	Free
Impact/Vibration resistance (m/s <sup>2</sup> ) <sup>(2)</sup>	300/50
Protection structure	Dust proof



Note 1) According to dynamic performance test of JIS B8374-1981.(Coil temperature 20°C, rated voltage, without surge voltage suppressor)

Note 2) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve and armature, each one time when energized and de-energized. (Value in the initial stage.)

Vibration resistance: No malfunction from test with 45 to 1000Hz 1 sweep, to axis and right angle directions of main valve and armature, each one time when energized and de-energized. (Value in the initial stage.)

## Solenoid specifications

\*Option

Electrical entry		DIN terminal(D)	
Coil rated voltage V	AC50/60Hz	100, 200, 24*, 48*, 110*, 220*	
	DC	24, 6*, 12*, 48*	
Allowable voltage		15 to +10% rated voltage	
Power consumption W Note)	DC	1.8(with light 2.1) [24V DC: 75(with light 87.5)]	
[Current mA]			
Apparent power VA Note)	AC	Inrush	4.5/50Hz, 4.2/60Hz [100V AC: 45/50Hz, 42/60Hz]
			3.5/50Hz, 3/60Hz [100V AC: 35/50Hz, 30/60Hz]
[Current mA]	Holding	3.5/50Hz, 3/60Hz [200V AC: 17.5/50Hz, 15/60Hz]	
Surge voltage suppressor		DC: diode, AC: ZNR	
Indicator light		DC: LED(Red), AC: Neon light	



Note) At rated voltage

## Operating Pressure Range and Effective Area

Valve	Actuation	Operating press. range (MPa)	Vacuum specification MPa		Port size	Effective area (mm <sup>2</sup> )	Weight (g)
			P port	R port			
Construction	VZ110	N.C.	0 to 0.7	-27kPa to 0.6	-100kPa to 0	M5 X 0.8	70
	VZ120	N.O.	0 to 0.5	-100kPa to 0	-100kPa to 0.4		



Note) Regarding VZ120, R port is a supply port.

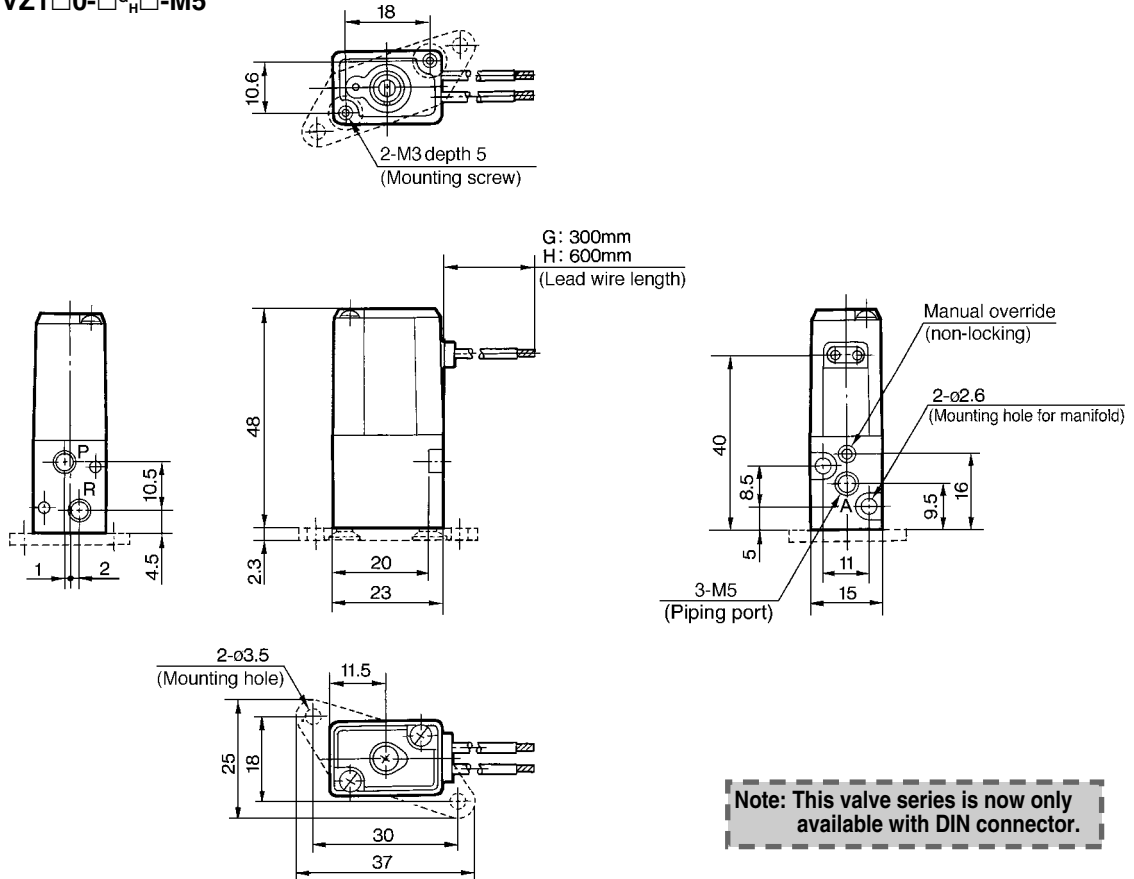
### JIS symbol

### JIS symbol

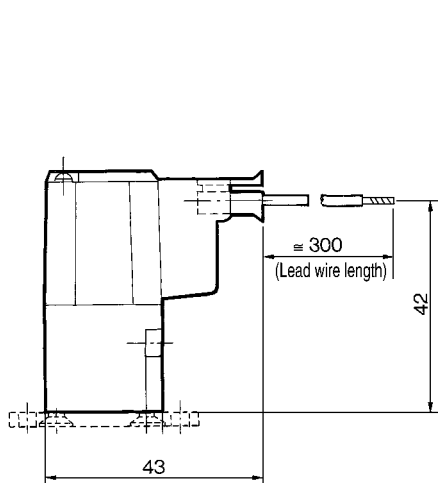


## Body Ported

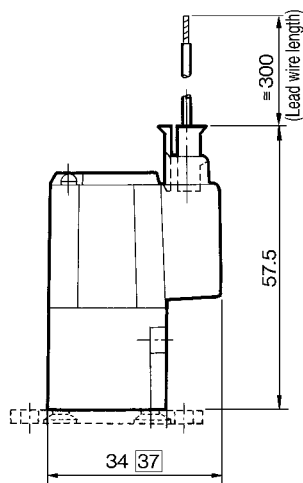
### Grommet (G), (H) VZ1□0-□□<sub>G,H</sub>□-M5



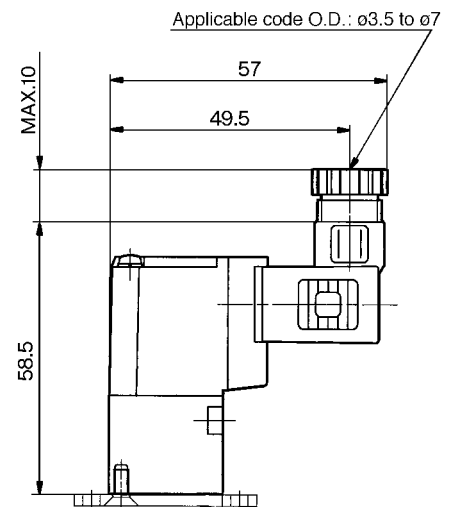
### L plug connector (L) VZ1□0-□L□-M5



### M plug connector (M) VZ1□0-□M□-M5



### DIN terminal (D) VZ1□0-□D□-M5-Q



□ : with indicator light and surge voltage suppressor

# Series VZ100 Manifold



## Manifold Specifications

Model	VV3Z1-01-□1	VV4Z1-20-□1
Manifold	Single base/B mount	
P(SUP)/R(EXH)style	Common SUP and EXH type	
Valve stations	2 to 20 stations <sup>(1)</sup>	
A port piping	Position	Valve
	Direction	Top
Port size	P/R port	M5
	A port	1/8
Valve effective area mm <sup>2</sup> (Nl/min) <sup>(2)</sup>	VZ110	P→A: 0.5 (27.48)
		A→R: 0.86 (47.11)
	VZ120	R→A: 0.56 (30.43)
		A→P: 0.5 (27.48)
Page on How to Order	p.2.4-9	p.2.4-10



Note 1) If there are more than 10 stations, exhaust from both sides of manifold.

Note 2) Value at manifold base mounted

Note 3) Not able to use VZ120 and VZ110 on the same manifold base.

Note 4) In case of VZ120, supply air to R port and exhaust from P port.

## How to Order Manifold Base

To order valves and blank plate assembly mounted onto the manifold, list valves and blank plate assembly with manifold base.

(Sample)

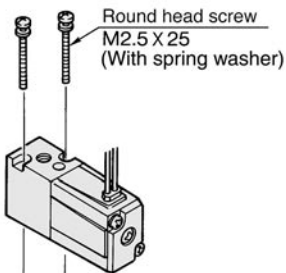
VV3Z1-01-031-Q..... 1 pc. (Manifold base)

VZ110-5D-M5-Q ..... 2 pcs. (Valve)

DXT170-25-1A-Q..... 1 pc. (Blank plate assembly)

## Option

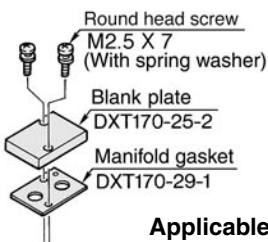
### Combinations of solenoid valve, gasket and manifold base



#### Applicable base

VV3Z1-01-□1 }  
VV4Z1-20-□1 } Manifold base

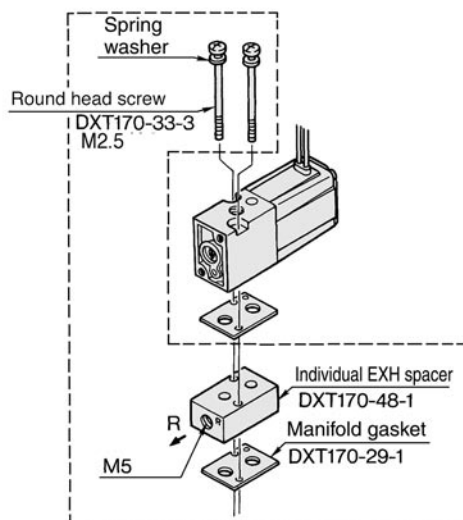
### Blank plate assembly DXT170-25-1A



#### Applicable base

VV3Z1-01-□1 }  
VV4Z1-20-□1 } Manifold base

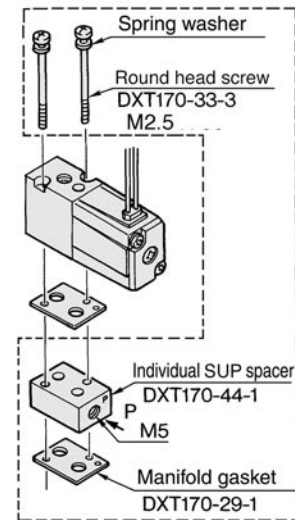
### Individual EXH spacer assembly DXT170-48-1A



#### Applicable base

VV3Z1-01-□1 }  
VV4Z1-20-□1 } Manifold base

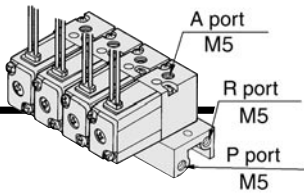
### Individual SUP spacer assembly DXT170-44-1A



#### Applicable base

VV3Z1-01-□1 }  
VV4Z1-20-□1 } Manifold base





## 01 Type Manifold Base: Top Ported

### How to Order

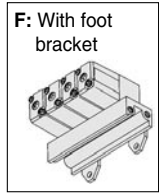
**E** VV3Z1 - 01 - **05** 1 - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
...	...
20	20 stations

P, R port thread	
-	Rc (PT)
00F	G (PF)
00N	NPT
00T	NPTF



\* The bracket is not assembled.

- Note ● If there are more than 10 stations, exhaust from both sides manifold.  
● It is not able to use VZ110 and VZ120 on the same manifold base.

#### Applicable solenoid valve

VZ110-□□□-M5-Q  
VZ120-□□□-M5-Q

#### Applicable blank plate assembly

DXT170-25-1A

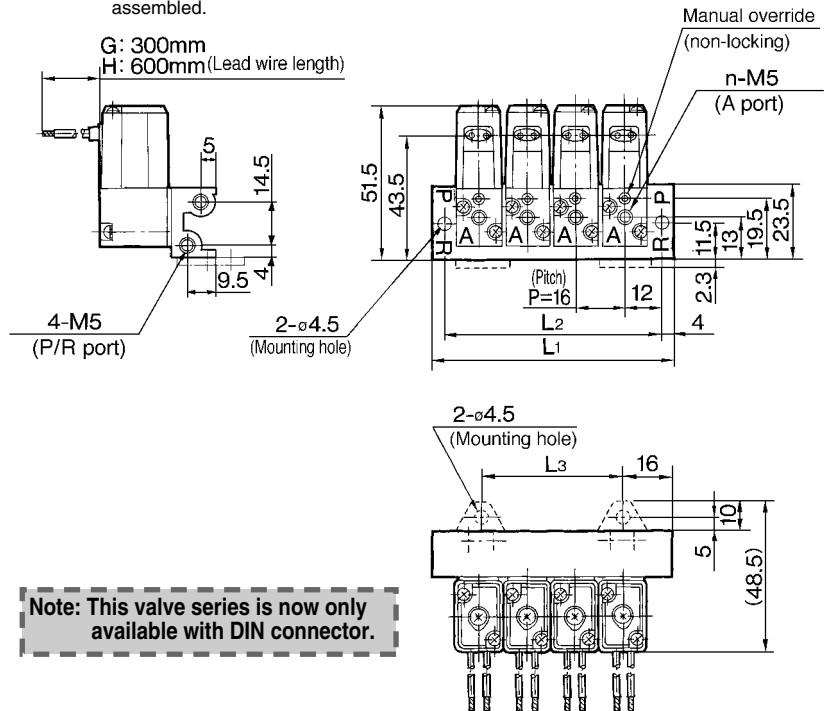
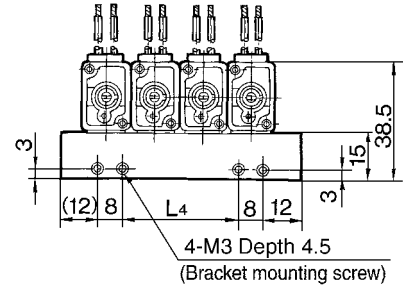
#### Individual EXH spacer assembly

DXT170-48-1A

#### Individual SUP spacer assembly

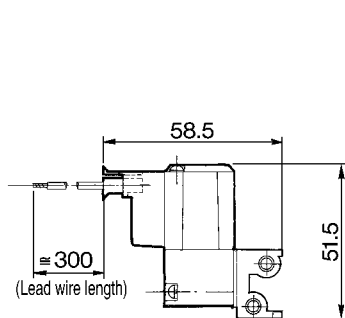
DXT170-44-1A

### Grommet (G), (H)

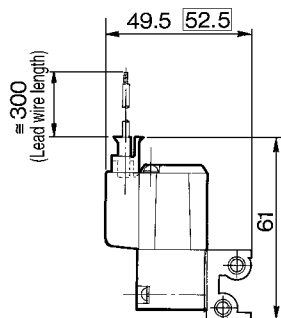


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	48	64	80	96	112	128	144	160	176	192	208	224	241	256	272	288	304	320	336
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
L3	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304
L4	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296

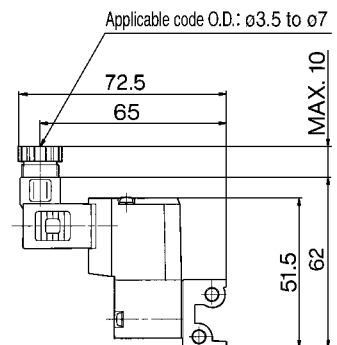
### L plug connector (L)



### M plug connector (M)

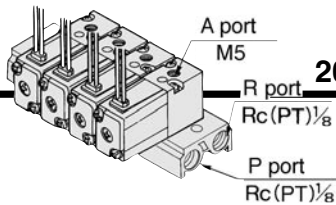


### DIN terminal (D)



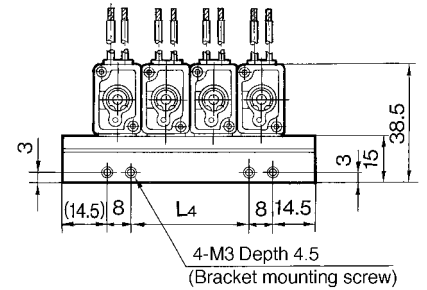
□ : with indicator light and surge voltage suppressor

# VZ100



## 20 Type Manifold Base: Top Ported

### Grommet (G), (H)



### How to Order

**E** VV4Z1 - 20 - **05** 1 - [ ] - [ ] - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
<b>E</b>	Europe
<b>N</b>	North America

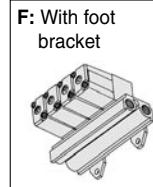
#### Stations

<b>02</b>	2 stations
...	...
<b>20</b>	20 stations

#### P, R port thread

-	Rc (PT)
<b>00F</b>	G (PF)
<b>00N</b>	NPT
<b>00T</b>	NPTF

#### Option



\* The bracket is not assembled.

- Note ● If there are more than 10 stations, supply air to SUP port on both sides of the manifold and exhaust from EXH port on both sides of the manifold.
- It is not able to use VZ110 and VZ120 on the same manifold base.

#### Applicable solenoid valve

VZ110-□□□-M5-Q  
VZ120-□□□-M5-Q

#### Applicable blank plate assembly

DXT170-25-1A

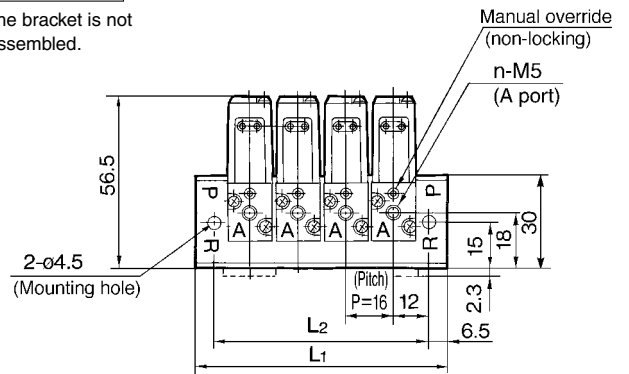
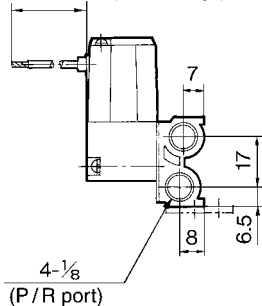
#### Individual EXH spacer assembly

DXT170-48-1A

#### Individual SUP spacer assembly

DXT170-44-1A

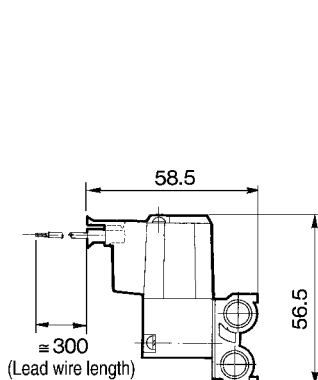
G: 300mm  
H: 600mm (Lead wire length)



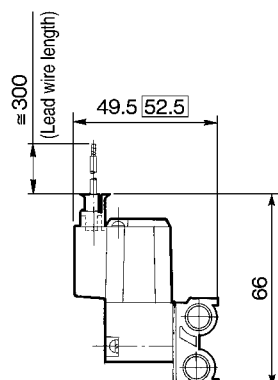
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>L1</b>	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
<b>L2</b>	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
<b>L3</b>	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304
<b>L4</b>	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296

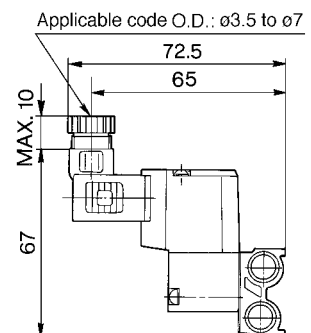
### L plug connector (L)



### M plug connector (M)



### DIN terminal (D)



□ : with indicator light and surge voltage suppressor

# 3 Port Body Ported, Base Mounted Rubber Seal

# Series VZ300

## How to Order

**Ordering source area code**

Code	areas
—	Japan, Asia Australia, England
E	Europe
N	North America

**Port Size**  
M5: M5

**Option**  
F: With foot bracket

**Note**  
•The bracket is not assembled.  
•Except for external pilot

**Body Ported** E VZ3 1 2 □ — 5 D □ □ — M5 — □ — Q

**Base Mounted** E VZ3 1 4 □ — 5 D □ □ — □ — □ — Q

**Actuation**

1 Normally closed (A) 2 1 3 (P)(R)

2 Normally open (A) 2 1 3 (P)(R)

**Body option**

—: Individual pilot exhaust    M: Common exhaust (pilot and main valve)    R: External pilot (Note)

R port P/E port    R port P/E port

**Note** VZ3□2R is only for Manifold.

**Rated voltage**

1	100V AC 50/60Hz
2	200V AC 50/60Hz
3	110V AC 50/60Hz
4	220V AC 50/60Hz
5	24V DC
6	12V DC
9	Others

**Order Made** Contact SMC for other voltages (9)

**Electrical entry**

**DIN terminal**  
D: With connector  
DO: Without connector

**Manual override**

—: Non-locking push style    B: Locking slotted style    C: Locking knob style

**Indicator light and surge voltage suppressor**

—	None
Z*	Indicator light and surge voltage suppressor
S	Surge voltage suppressor

\* DOZ is not available.

**Thread**

—	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

**Port size**

—: Without sub-plate    01: With 1/8 sub-plate

⚠ Protective class class I (Mark: ⊕)

# VZ300

**Low Power Consumption:  
1.8WDC**

**Applicable for Vacuum Use  
-100kPa**

VZ300R: External pilot style

Exhaust measures for the pilot valve are unnecessary.

VZ300M: Central exhaust style

It is not necessary to take exhaust measures for the pilot valve for environmental protection.

**Can also be used as a selector valve or a divider valve.**

VZ300R: External pilot style

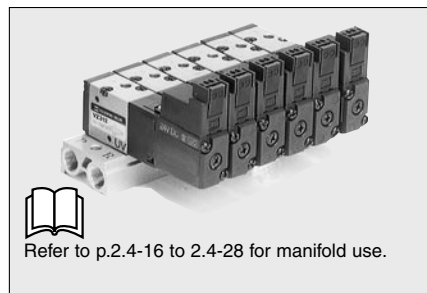
Can be used for universal porting.



Series VZ300/Body Ported



Series VZ300/Base Mounted



Refer to p.2.4-16 to 2.4-28 for manifold use.

## Specifications

Fluid		Air
Operating pressure (MPa)	Internal pilot	0.15 to 0.7
Ambient and fluid temperature (°C)		Max. 50
Response time (ms) {0.5MPa} <sup>(1)</sup>		20 or less
Max. operating frequency (Hz)		10
Effective area		See below
Manual override <sup>(2)</sup>		Non-locking push style, Locking slotted style, Locking knob style
Pilot exhaust		Individual pilot exhaust, Common exhaust (pilot and main valve)
Lubrication		Non-lube
Mounting position		Free
Impact/vibration resistance (m/s <sup>2</sup> ) <sup>(3)</sup>		300/50
Protection structure		Dust proof



Note 1) According to dynamic performance test of JIS B8374-1981. (Coil temperature 20°C, rated voltage,

Note 2) without surge voltage suppressor)

Note 3) When operating the locking style manually, apply torque of 0.2Nm or less.

Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve and armature, each one time when energized and de-energized.

Vibration resistance: (Value in the initial stage.)

No malfunction from test with 8.3 to 2000Hz 1 sweep, to axis and right angle directions of main valve and armature, each one time when energized and de-energized. (Value in the initial stage.)

## Solenoid Specifications

\*Option

Electrical entry		DIN terminal (D)	
Coil rated voltage V	AC50/60Hz	100, 200, 24*, 48*, 110*, 220*	
	DC	24, 6*, 12*, 48*	
Allowable voltage %		-15 to +10% of rated voltage	
Power consumption W <sup>(1)</sup> [Current mA]	DC	1.8 (with light 2.1)[24VDC: 75 (with light 87.5)]	
Apparent power VA <sup>(1)</sup> [Current mA]	AC	Inrush	4.5/50Hz, 4.2/60Hz [100V AC: 45/50Hz, 42/60Hz 200V AC: 22.5/50Hz, 21/60Hz]
		Holding	3.5/50Hz, 3/60Hz [100V AC: 35/50Hz, 30/60Hz 200V AC: 17.5/50Hz, 15/60Hz]
Surge voltage suppressor		DC: Diode, AC: ZNR	
Indicator light		DC: LED(red), AC: Neon light	



Note 1) At rated voltage

## Effective Area and Weight

Valve		Actuation	Port size	Effective area (mm <sup>2</sup> ) (Nz/min)	Weight (g)
Body ported style	VZ312	N.C.	M5 X 0.8	3.6 (196.3)	75
	VZ322	N.O.			
Base mounted style (with sub-plate)	VZ314	N.C.	1/8	4.5 (245.38)	105 (without sub-plate: 75)
	VZ324	N.O.			

## Option

Description	Part No.	Note
Foot bracket	DXT170-34-1B	With screw (for VZ3□2)

## External Pilot

### VZ300R

This obtains external pressure for the pilot valve separately from the main valve pressure. It can be operated with a low pressure line with a vacuum (to -100kPa) or below 0.15MPa.

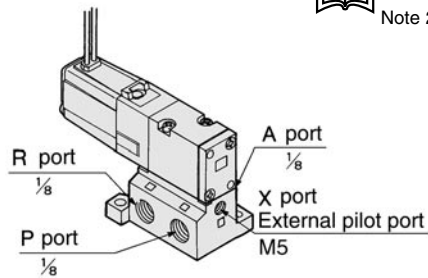
### Specifications

Applicable model	Base mounted style(VZ314R, VZ324R)	
Operating pressure range MPa	Main pressure	-100kPa to 0.7
	External pilot pressure	0.15 to 0.7



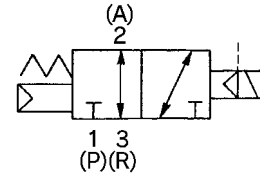
Note 1) Refer to the p.2.4-16 for manifold base.

Note 2) In the case of the body ported style, the pilot style (VZ3□2R) is used exclusively on a manifold. An external pilot style that can be used individually is available as a Made to Order.

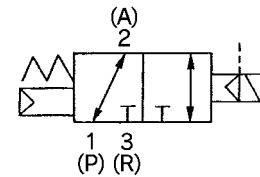


### JIS symbol

VZ31□R

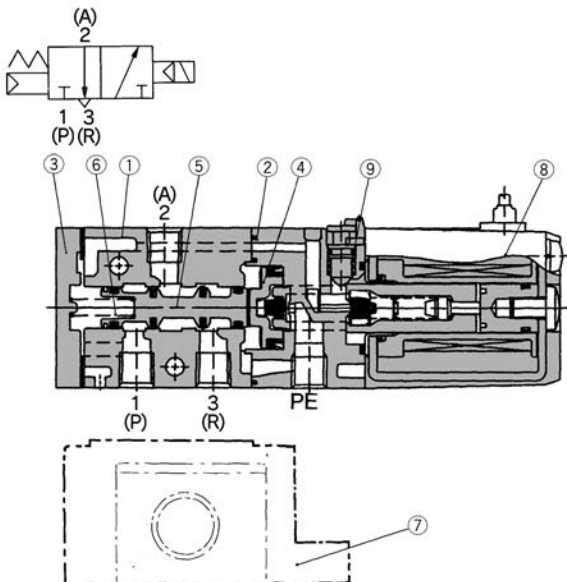


VZ32□R

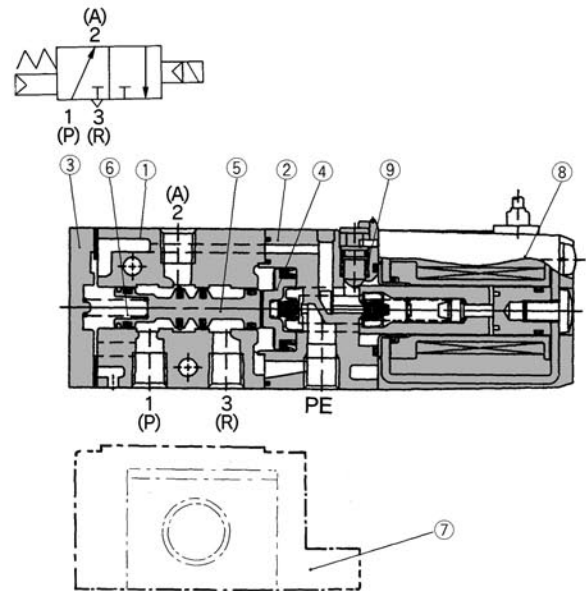


## Construction

N.C.



N.O.



### Component Parts

No.	Description	Material	Note
①	Body	Aluminium die cast	Platinum silver
②	Piston plate	Resin	Black
③	End cover	Aluminium die cast	Black
④	Piston	Resin	—
⑤	Spool valve ass'y	—	—
⑥	Spool spring	Stainless steel	—

### Replacement Parts

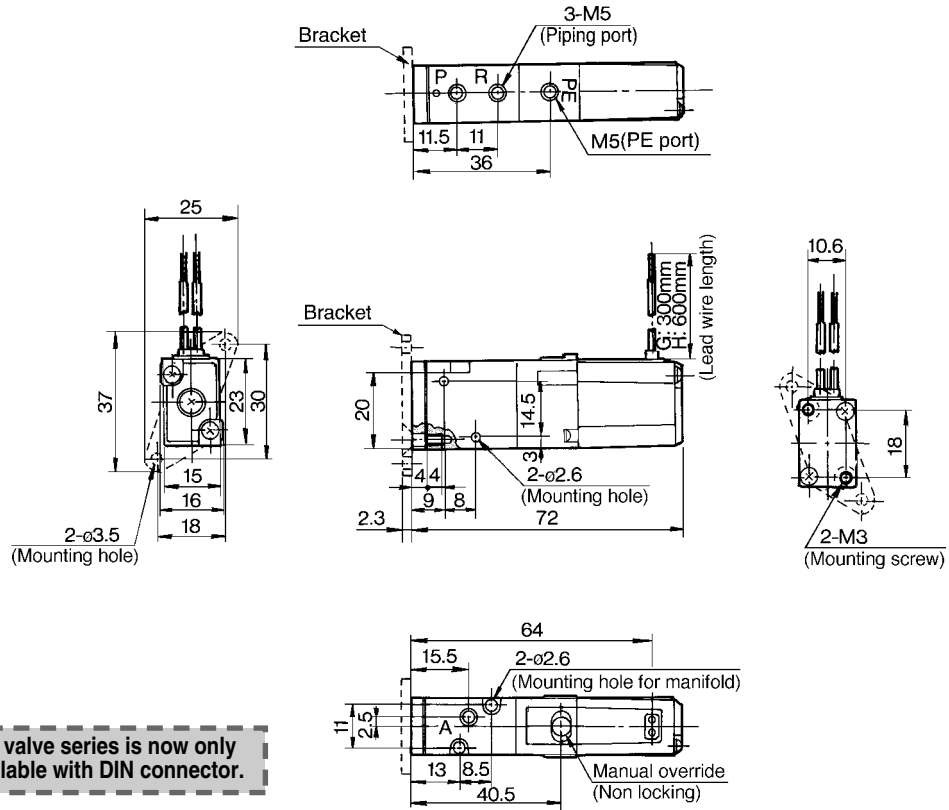
No.	Description	Material	Part No.	Note
⑦	Sub-plate	Aluminium die cast	DXT200-13-1P	
⑧	Solenoid ass'y	Epoxy, stainless steel	DXT170-C-□□□	
⑨	O-ring	NBR	13 X 11 X 1	Common with VZ100

# VZ300



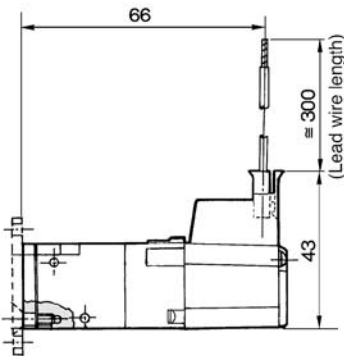
## Body Ported

### Grommet (G), (H) VZ3□2-□<sup>G</sup>□□-M5

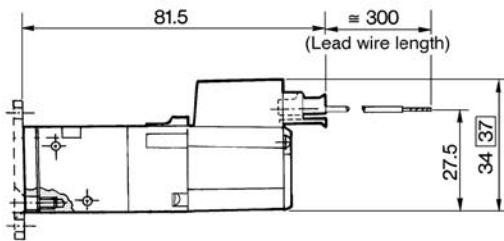


**Note:** This valve series is now only available with DIN connector.

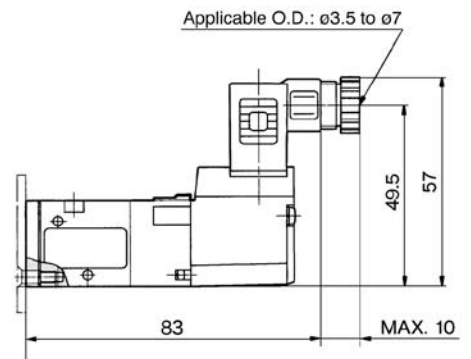
### L plug connector (L) VZ3□2-□L□□-M5



### M plug connector (M) VZ3□2-□M□□-M5



### DIN terminal (D) VZ3□2-□D□□-M5-Q

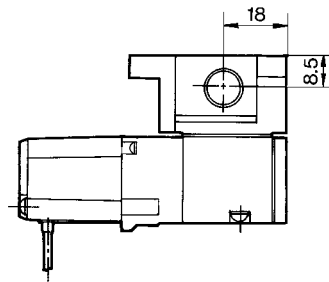
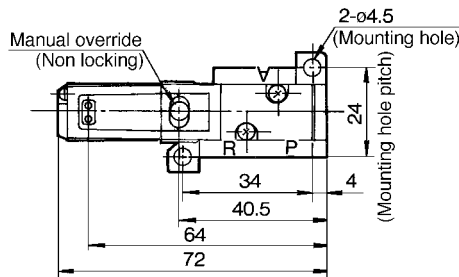
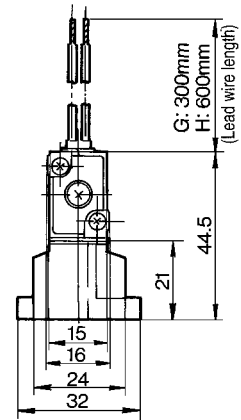
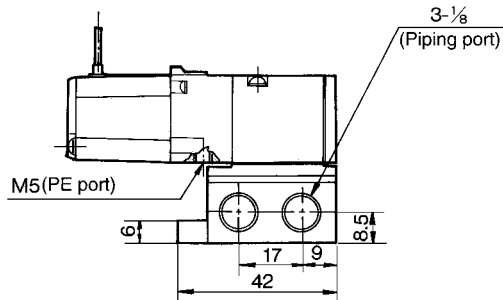
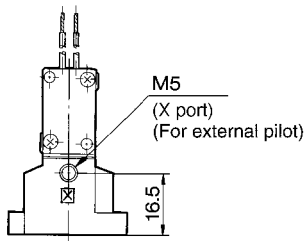


□ : with indicator light and surge voltage suppressor



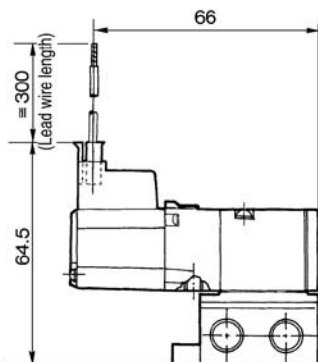
## Base Mounted

**Grommet (G), (H)**  
**VZ3□4-□<sup>G</sup>□□-01**

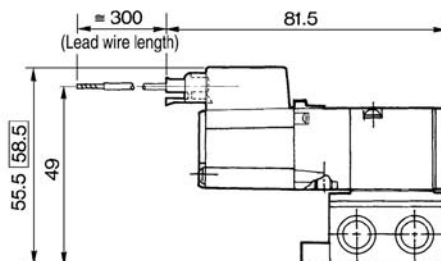


**Note: This valve series is now only available with DIN connector.**

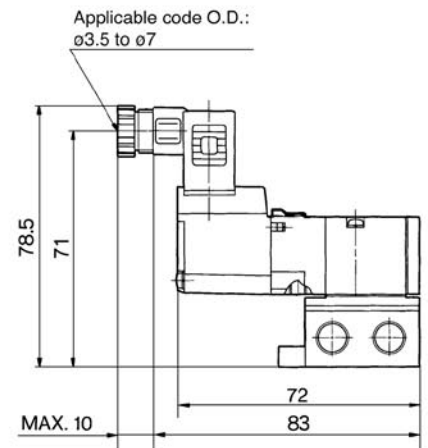
**L plug connector (L)**  
**VZ3□4-□L□□-01**



**M plug connector (M)**  
**VZ3□4-□M□□-01**

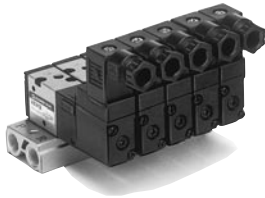


**DIN terminal (D)**  
**VZ3□4-□D□□-01-Q**



□ : with indicator light and surge voltage suppressor

# Series VZ300 Manifold



## Manifold Specifications

Model	Internal pilot	20-□1	40-□2	40-□1
	External pilot	21R-□1	40R-□2	40R-□1
Manifold	Single base/B mount			
P(SUP)/R(EXH) style	Common SUP/Common EXH			
Stations	2 to 20			
A port piping	Position	Valve	Base	
	Direction	Top	Bottom	Side
Port size	P, R port	1/8	1/8	1/8
	A port	M5 X 0.8	M5 X 0.8 1/8	M5 X 0.8, 1/8, C4(ø4One touch fitting), C6(ø6One touch fitting)
	X port <sup>(1)</sup>	M5 X 0.8	M5 X 0.8	M5 X 0.8
Valve effective area (mm <sup>2</sup> ) (N/min) <sup>(2)</sup>	Body ported VZ3□2/VZ3□2R	3.4 (0.19)	-	
	Base mounted VZ3□4/VZ3□4R	-	M5: 3.8(206.12) 1/8: 4.7(255.19)	M5: 3.3(176.67) 1/8: 4.8(265.01) C4, C6: 3.8(206.12)
Page on How to Order	Internal pilot	p.2.4-17	p.2.4-18, 24-19	p.2.4-20 to 2.4-22
	External pilot	p.2.4-23	p.2.4-24, 24-25	p.2.4-26 to 2.4-28

Note 1) Only for external pilot  
Note 2) Value at manifold base mounted

## How to Order Manifold Base

To order valves and blank plate assembly mounted onto the manifold, list valves and blank plate assembly with manifold base.

(Sample)

VV3Z3-20-031-Q...1 pc. (Manifold base)

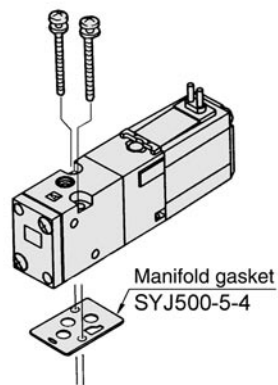
VZ312-5D-M5-Q...2 pcs. (Valve)

DXT170-25-1A...1 pc. (Blank plate ass'y)

## Option

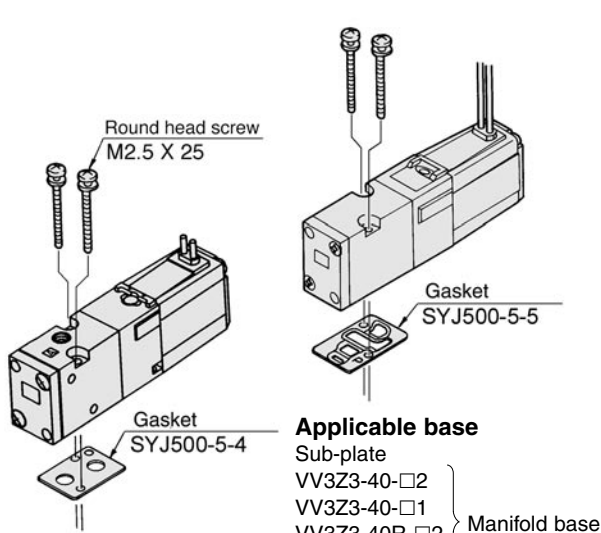
### Combinations of solenoid valve, manifold gasket and manifold base

#### Body ported (VZ3□2)



Applicable base  
VV3Z3-21R-□1  
Manifold base

#### Base mounted (VZ3□4)

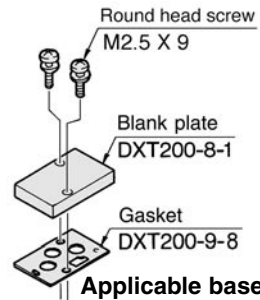


Applicable base  
VV3Z3-20-□1  
Manifold base

Applicable base  
Sub-plate  
VV3Z3-40-□2  
VV3Z3-40-□1  
VV3Z3-40R-□2  
VV3Z3-40R-□1 } Manifold base

### Blank Plate Assembly

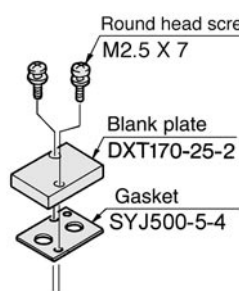
#### DXT200-8-1A



Applicable base  
Sub-plate

VV3Z3-40-□2  
VV3Z3-40-□1  
VV3Z3-40R-□2  
VV3Z3-40R-□1 } Manifold base

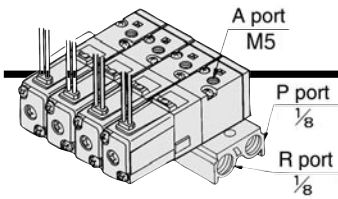
#### Model No.: DXT170-25-1A



Applicable base  
VV3Z3-20-□1  
VV3Z3-21R-□1  
Manifold base



## For Internal Pilot 20 Type Manifold: Top Ported



### How to Order

**E** VV3Z3 - 20 - **05** 1 -    - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
...	...
20	20 stations

P, R port thread	
-	Rc (PT)
00F	G (PF)
00N	NPT
00T	NPTF

Note) If > 6 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

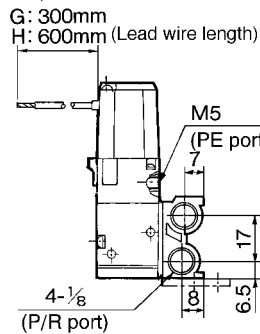
#### Applicable solenoid valve

- VZ312-□□□□-M5-Q
- VZ312M-□□□□-M5-Q
- VZ322-□□□□-M5-Q
- VZ322M-□□□□-M5-Q

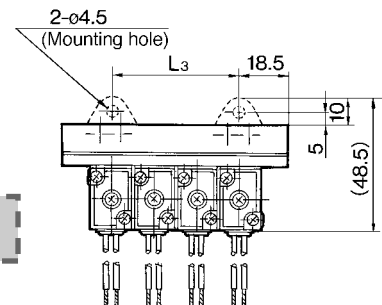
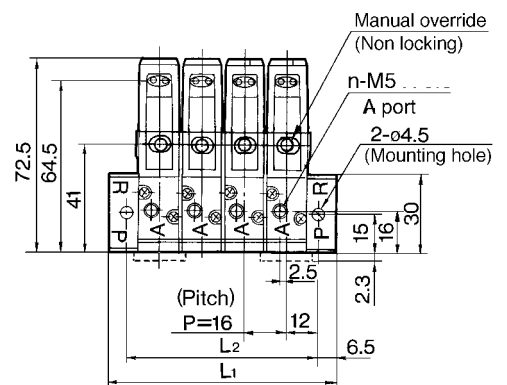
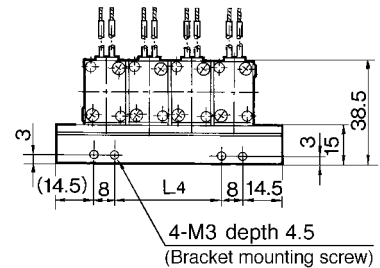
#### Applicable blank plate assembly

DXT170-25-1A

Note) If more than 6 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.



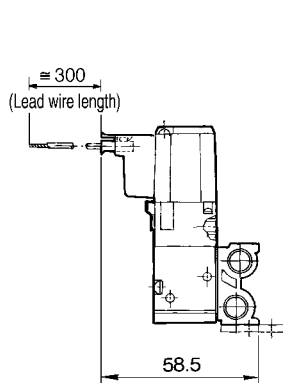
### Grommet (G), (H)



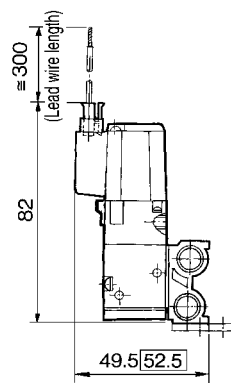
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
L3	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304
L4	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296

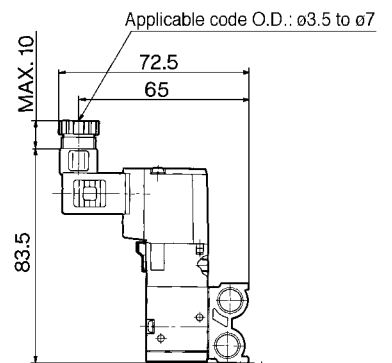
### L plug connector (L)



### M plug connector (M)



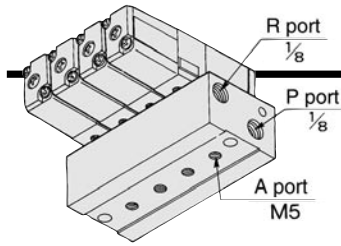
### DIN terminal (D)



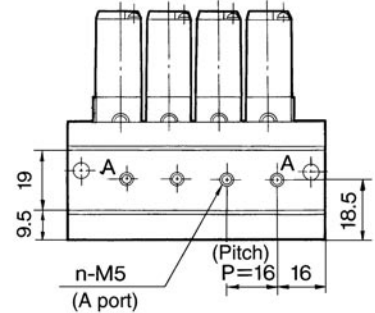
□: with indicator light and surge voltage suppressor

# VZ300

## For Internal Pilot 40 Type Manifold: Bottom Ported



### Grommet (G), (H)



### How to Order

**E** VV3Z3 - 40 - **05** 2 - M5  - Q

### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

### Stations

02	2 stations
⋮	⋮
20	20 stations

### A port size

M5	M5 X 0.8
----	----------

### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

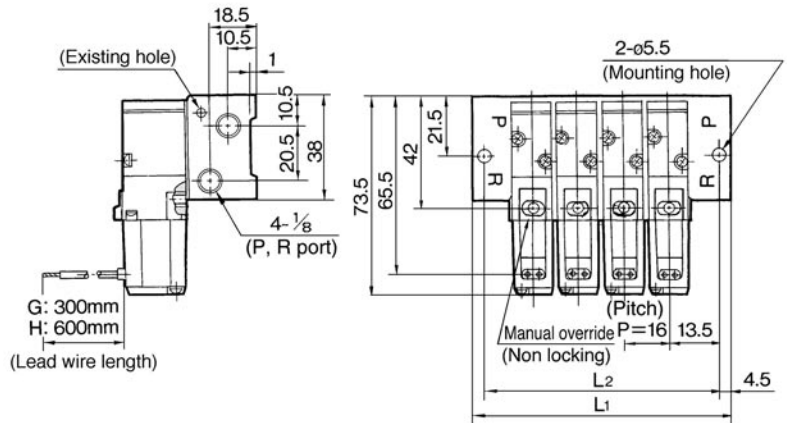
### Applicable solenoid valve

- VZ314-□□□□-Q
- VZ314M-□□□□-Q
- VZ324-□□□□-Q
- VZ324M-□□□□-Q

### Applicable blank plate assembly

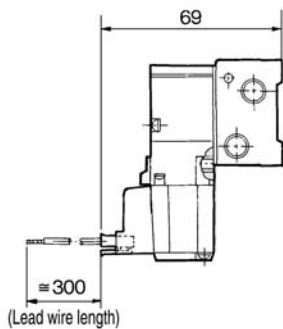
DXT200-8-1A

Note: This valve series is now only available with DIN connector.

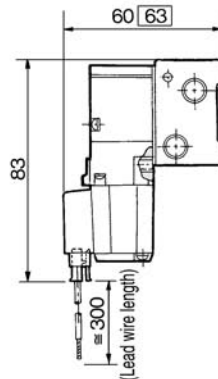


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L2	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

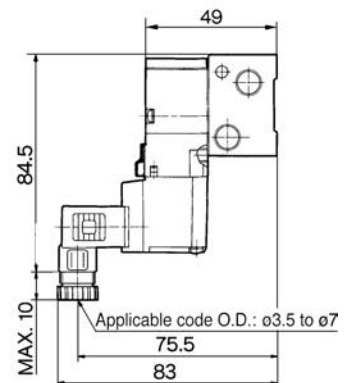
### L plug connector (L)



### M plug connector (M)

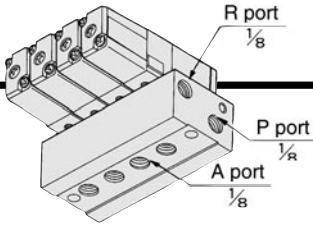


### DIN terminal (D)

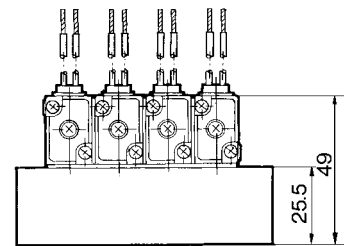
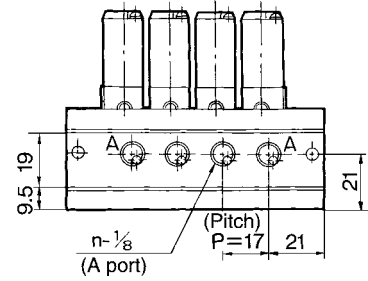


□: with indicator light and surge voltage suppressor

## For Internal Pilot 40 Type Manifold: Bottom Ported



### Grommet (G), (H)



### How to Order

**E** VV3Z3 - 40 - **05** 2 - 01    - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
⋮	⋮
20	20 stations

#### A port size

01	1/8
----	-----

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

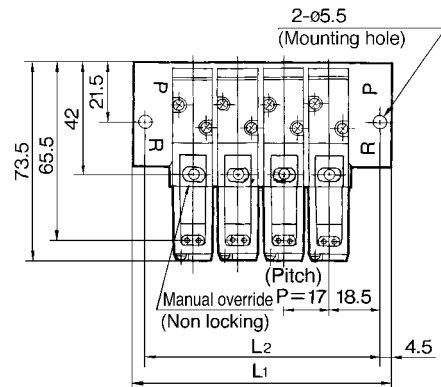
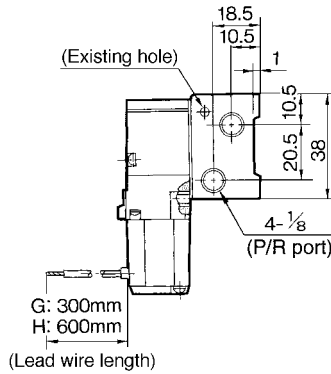
#### Applicable solenoid valve

VZ314-□□□□-Q  
VZ314M-□□□□-Q  
VZ324-□□□□-Q  
VZ324M-□□□□-Q

#### Applicable blank plate assembly

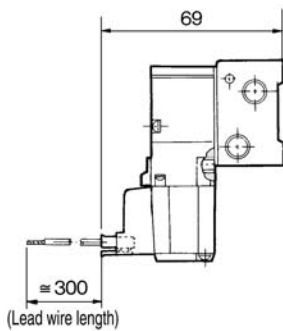
DXT200-8-1A

**Note: This valve series is now only available with DIN connector.**

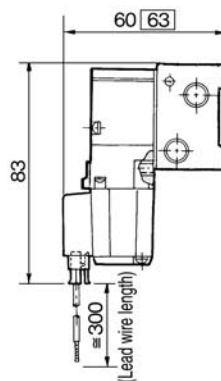


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	63	80	97	114	131	148	165	182	199	216	233	250	267	284	301	318	335	352	369
L2	54	71	88	105	122	139	156	173	190	207	224	241	258	275	292	309	326	343	360

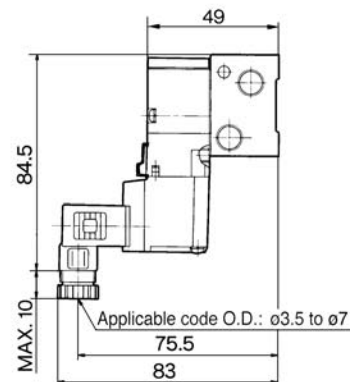
### L plug connector (L)



### M plug connector (M)



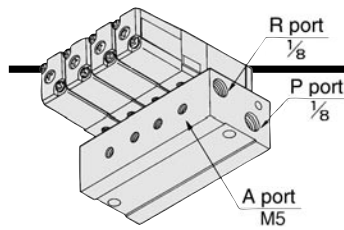
### DIN terminal (D)



□: with indicator light and surge voltage suppressor

# VZ300

## For Internal Pilot 40 Type Manifold: Side Ported



### How to Order

**E** VV3Z3 - 40 - **05** 1 - M5    - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
...	...
20	20 stations

A port size	
M5	M5 X 0.8

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.



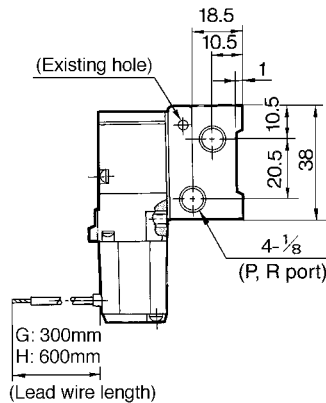
Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### Applicable solenoid valve

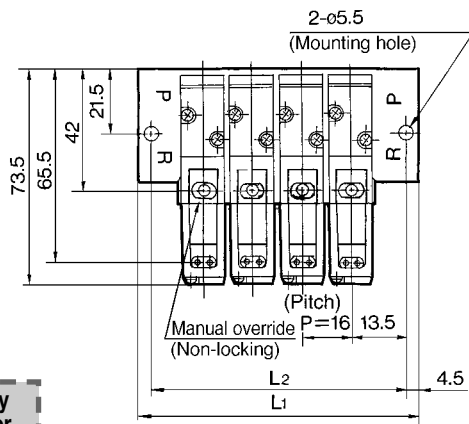
VZ314-□□□□-Q  
VZ314M-□□□□-Q  
VZ324-□□□□-Q  
VZ324M-□□□□-Q

#### Applicable blank plate assembly

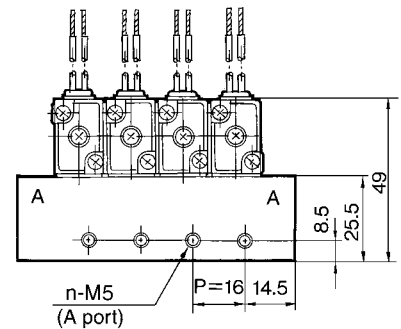
DXT200-8-1A



**Note: This valve series is now only available with DIN connector.**

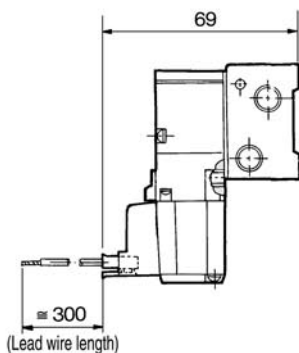


### Grommet (G), (H)

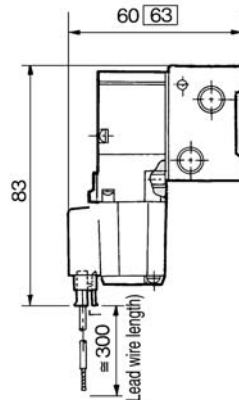


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L2	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

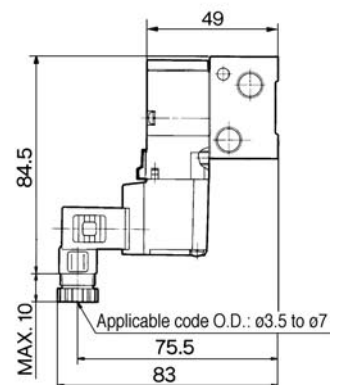
### L plug connector (L)



### M plug connector (M)

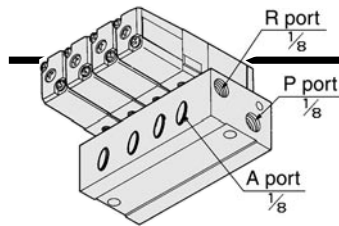


### DIN terminal (D)



□: with indicator light and surge voltage suppressor

## For Internal Pilot 40 Type Manifold: Side Ported



### How to Order

**E** VV3Z3 - 40 - **05** 1 - 01  - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

**A port size**  
01 1/8

P, R port thread	
-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### Applicable solenoid valve

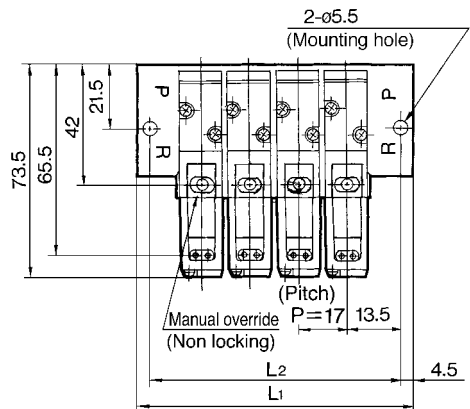
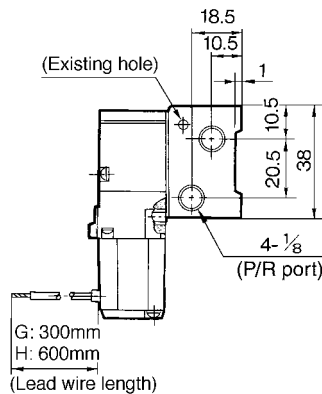
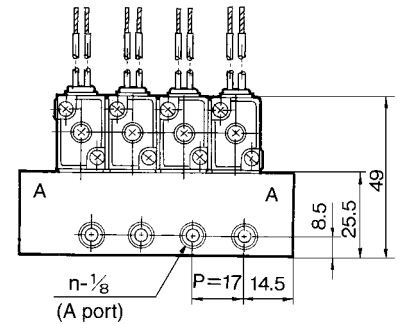
- VZ314-□□□□-Q
- VZ314M-□□□□-Q
- VZ324-□□□□-Q
- VZ324M-□□□□-Q

#### Applicable blank plate assembly

DXT200-8-1A

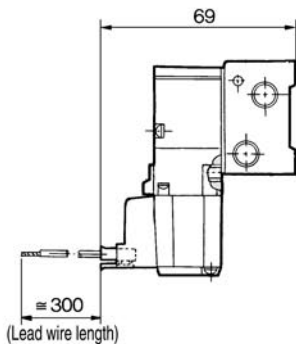
Note: This valve series is now only available with DIN connector.

### Grommet (G) (H)

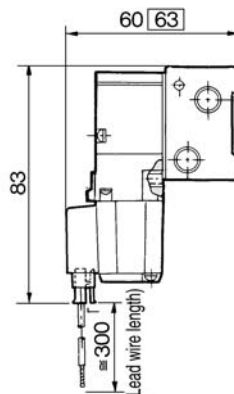


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	53	70	87	104	121	138	155	172	189	206	223	240	257	274	291	308	325	342	359
L2	44	61	78	95	112	129	146	163	180	197	214	231	248	265	282	299	316	333	350

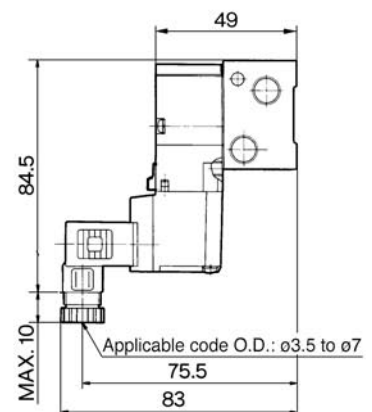
### L plug connector (L)



### M plug connector (M)



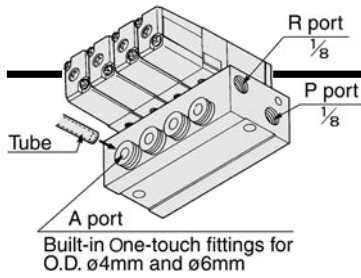
### DIN terminal (D)



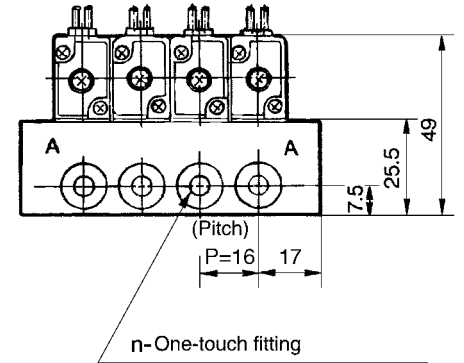
□: with indicator light and surge voltage suppressor

# VZ300

## For Internal Pilot 40 Type Manifold: Side Ported



### Grommet (G), (H)



### How to Order

**E** VV3Z3 - 40 - **05** 1 - **C6** - **Q**

#### Stations

02	2 stations
⋮	⋮
20	20 stations

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### A port size

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting

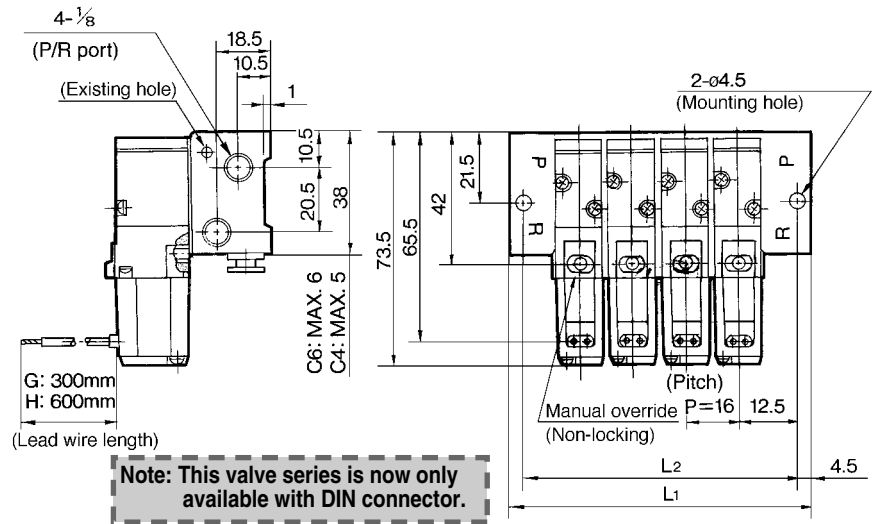
Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### Applicable solenoid valve

- VZ314-□□□□-Q
- VZ314M-□□□□-Q
- VZ324-□□□□-Q
- VZ324M-□□□□-Q

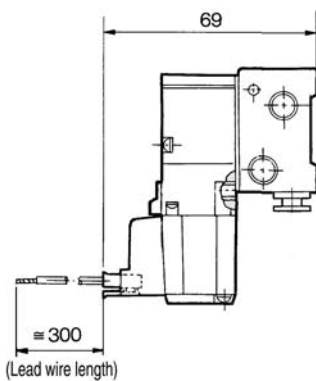
#### Applicable blank plate assembly

DXT200-8-1A

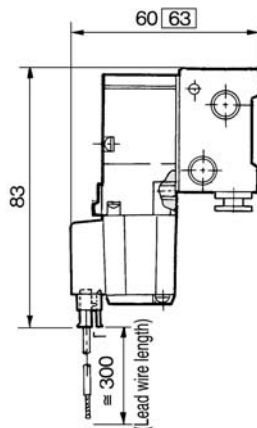


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322	338
L2	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329

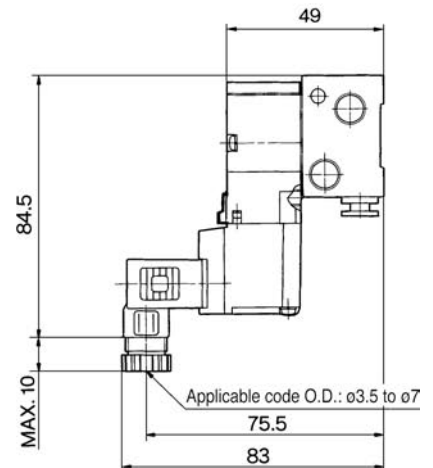
### L plug connector (L)



### M plug connector (M)

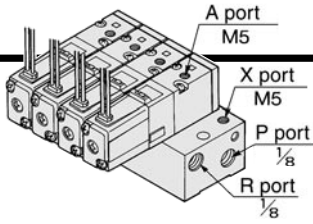


### DIN terminal (D)



□: with indicator light and surge voltage suppressor

## For External Pilot 21R Type Manifold: Top Ported



Grommet (G), (H)

### How to Order

**E** VV3Z3 - 21R - **05** 1  - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

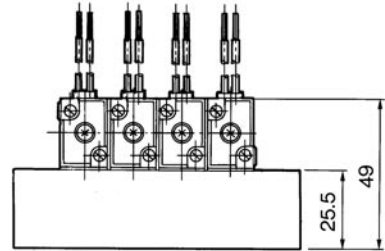
#### Stations

02	2 stations
⋮	⋮
20	20 stations

#### P, R port thread

-	Rc (PT)
00F	G (PF)
00N	NPT
00T	NPTF

Note) If more than 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.



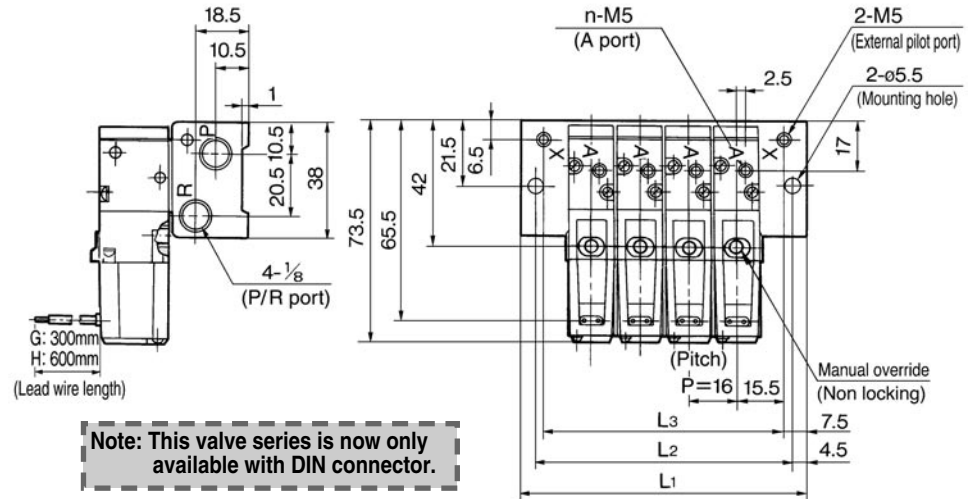
Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

#### Applicable solenoid valve

VZ312R-□□□□-M5-Q  
VZ322R-□□□□-M5-Q

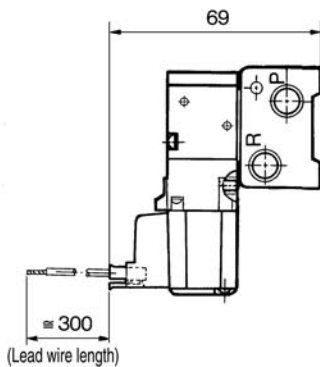
#### Applicable blank plate assembly

DXT200-8-1A

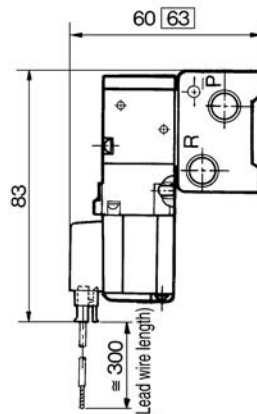


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350
L2	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
L3	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335

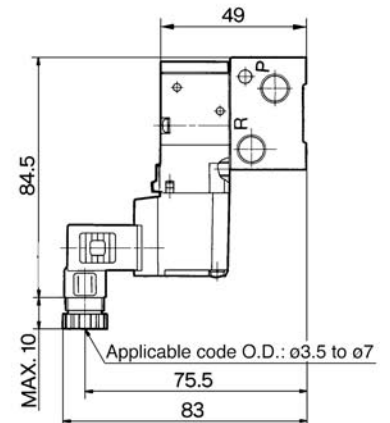
#### L plug connector (L)



#### M plug connector (M)



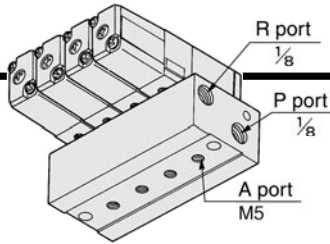
#### DIN terminal (D)



: with indicator light and surge voltage suppressor

# VZ300

## For External Pilot 40R Type Manifold: Bottom Ported



### How to Order

**E** VV3Z3 - 40R - **05** 2 - M5  - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

#### A port size

M5	M5 X 0.8
----	----------

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

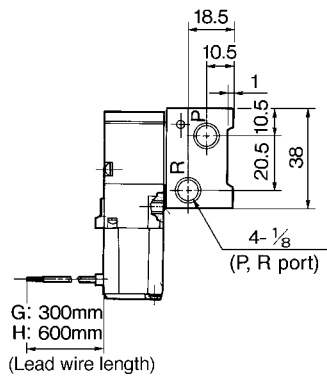
#### Applicable solenoid valve

VZ314R-□□□□-Q  
VZ324R-□□□□-Q

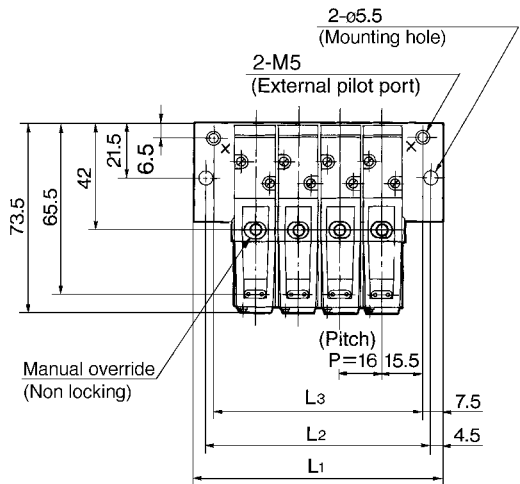
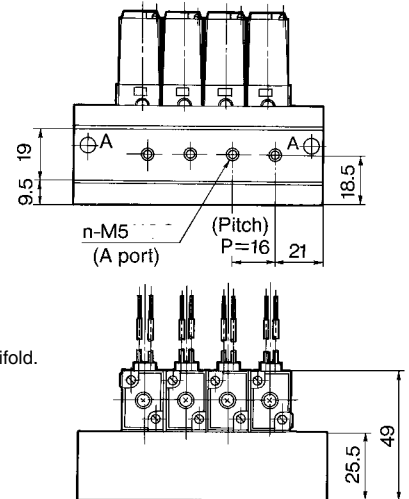
#### Applicable blank plate assembly

DXT200-8-1A

**Note: This valve series is now only available with DIN connector.**

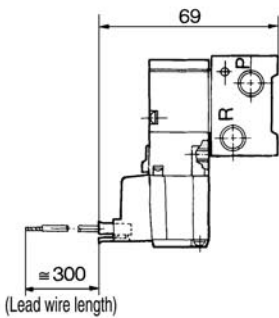


#### Grommet (G) (H)

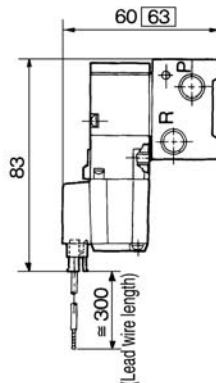


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350
L2	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
L3	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335

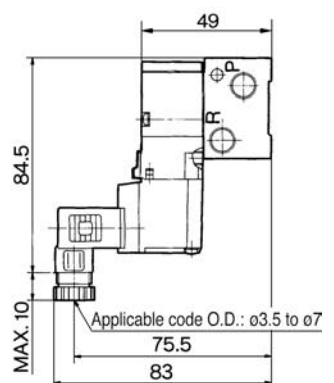
#### L plug connector (L)



#### M plug connector (M)



#### DIN terminal (D)

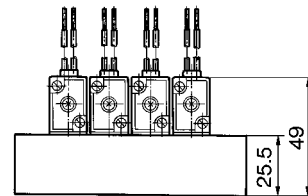
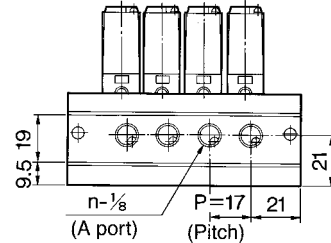


□: with indicator light and surge voltage suppressor



## For External Pilot 40R Type Manifold: Bottom Ported

### Grommet (G), (H)



### How to Order

**E** VV3Z3 - 40R -  2 - 01  - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

A port size	
01	1/8

P, R port thread	
-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

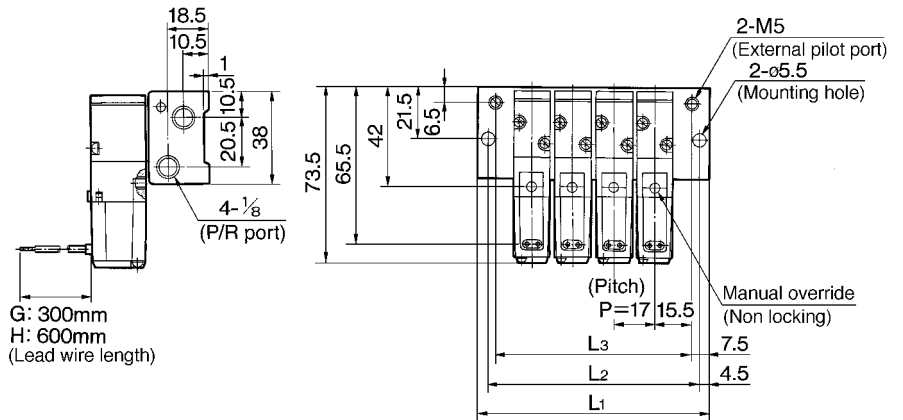
#### Applicable solenoid valve

VZ314R-□□□□-Q  
VZ324R-□□□□-Q

#### Applicable blank plate assembly

DXT200-8-1A

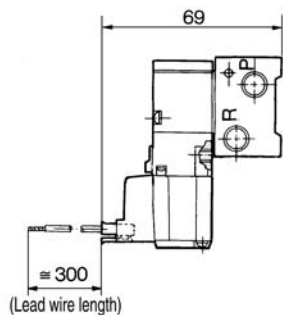
Note: This valve series is now only available with DIN connector.



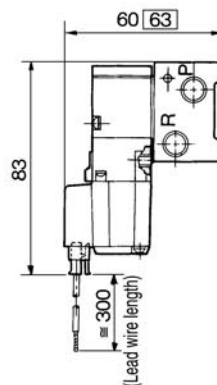
G: 300mm  
H: 600mm  
(Lead wire length)

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	63	80	97	114	131	148	165	182	199	216	233	250	267	284	301	318	335	352	369
L2	54	71	88	105	122	139	156	173	190	207	224	241	258	275	292	309	326	343	360
L3	48	65	82	99	116	133	150	167	184	201	218	235	252	269	286	303	320	337	354

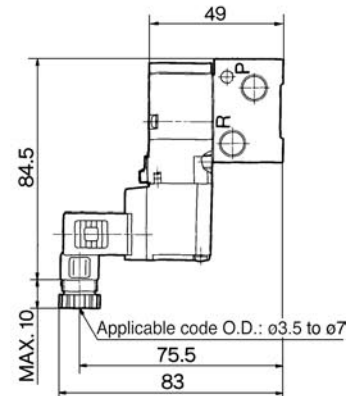
### L plug connector (L)



### M plug connector (M)



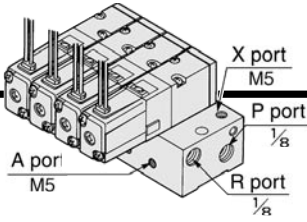
### DIN terminal (D)



□: with indicator light and surge voltage suppressor

# VZ300

## For External Pilot 40R Type Manifold: Side Ported



### How to Order

**E** VV3Z3 - 40R - **05** 1 - M5  - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

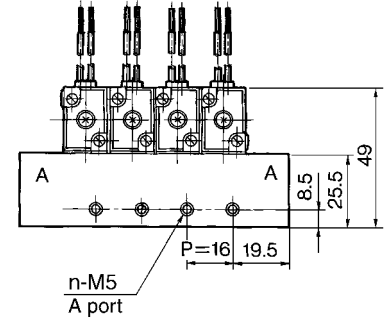
#### A port size

M5	M5 X 0.8
----	----------

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.



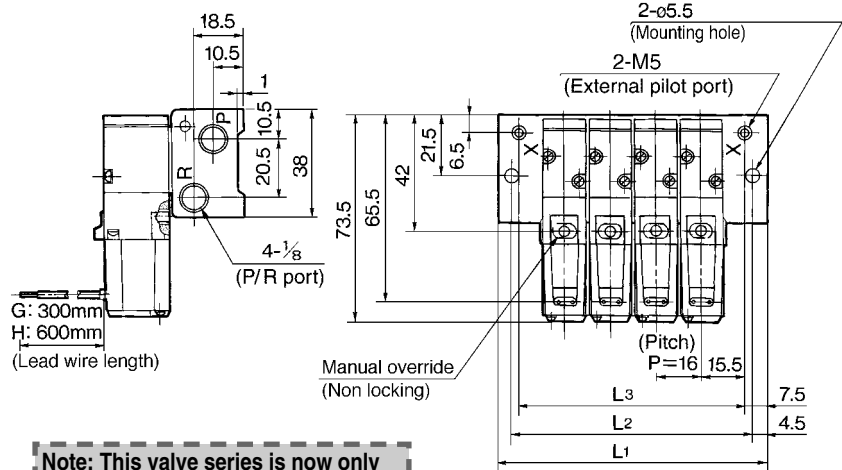
Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

#### Applicable solenoid valve

VZ314R-□□□□-Q  
VZ324R-□□□□-Q

#### Applicable blank plate assembly

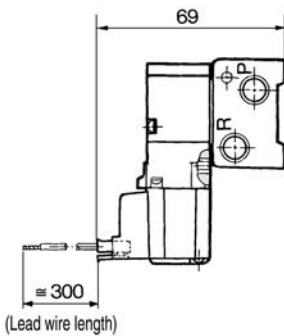
DXT200-8-1A



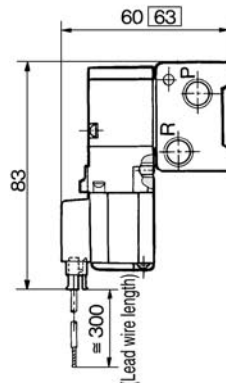
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350
L2	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341
L3	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335

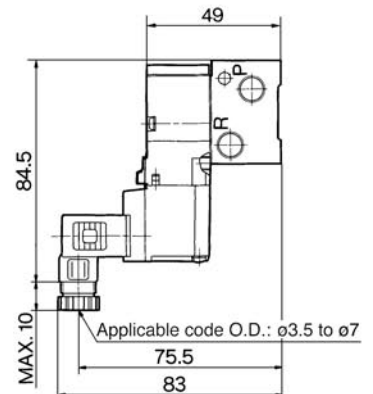
#### L plug connector (L)



#### M plug connector (M)

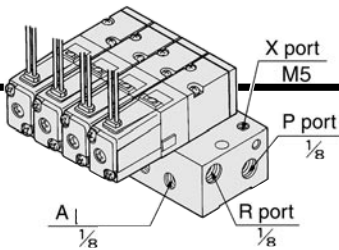


#### DIN terminal (D)



□: with indicator light and surge voltage suppressor

## For External Pilot 40R Type Manifold: Side Ported



### How to Order

**E** VV3Z3 - 40R - **05** 1 - 01  - Q

### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

### Applicable solenoid valve

VZ314R-□□□□-Q  
VZ324R-□□□□-Q

### Applicable blank plate assembly

DXT200-8-1A

Stations	
02	2 stations
⋮	⋮
20	20 stations

### A port size

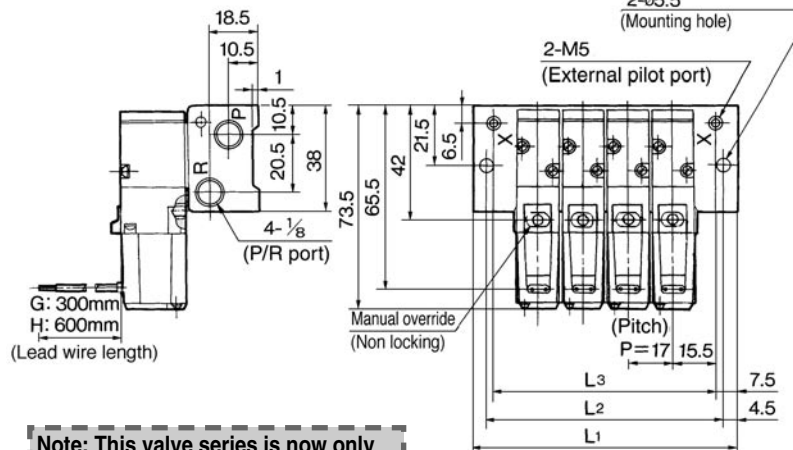
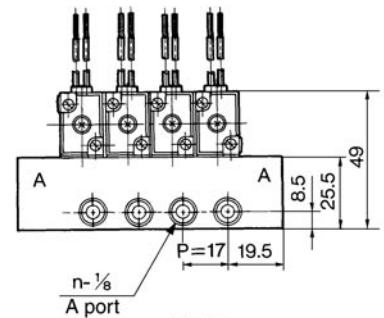
01	1/8
----	-----

### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

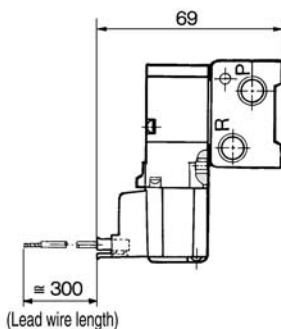
### Grommet (G). (H)



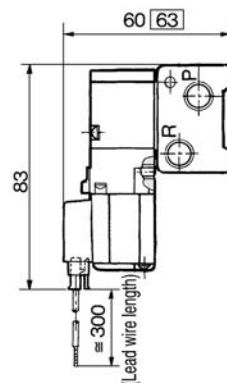
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	63	80	97	114	131	148	165	182	199	216	233	250	267	284	301	318	335	352	369
L2	54	71	88	105	122	139	156	173	190	207	224	241	258	275	292	309	326	343	360
L3	48	65	82	99	116	133	150	167	184	201	218	235	252	269	286	303	320	337	354

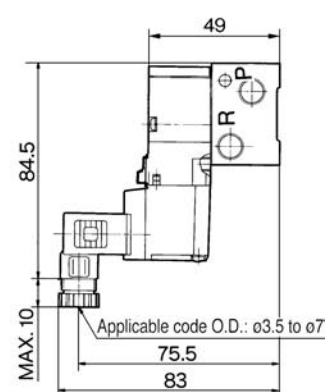
### L plug connector (L)



### M plug connector (M)



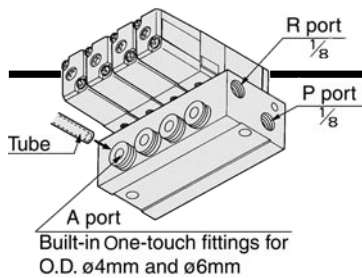
### DIN terminal (D)



□: with indicator light and surge voltage suppressor

# VZ300

## For External Pilot 40R Type Manifold: Side Ported



### How to Order

**E** VV3Z3 - 40R - **05** 1 - **C6**  - **Q**

#### Stations

02	2 stations
⋮	⋮
20	20 stations

#### A port size

<b>C4</b>	$\phi 4$ One-touch fitting
<b>C6</b>	$\phi 6$ One-touch fitting

#### P, R port thread

-	Rc (PT)
<b>F</b>	G (PF)
<b>N</b>	NPT
<b>T</b>	NPTF

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
<b>E</b>	Europe
<b>N</b>	North America

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

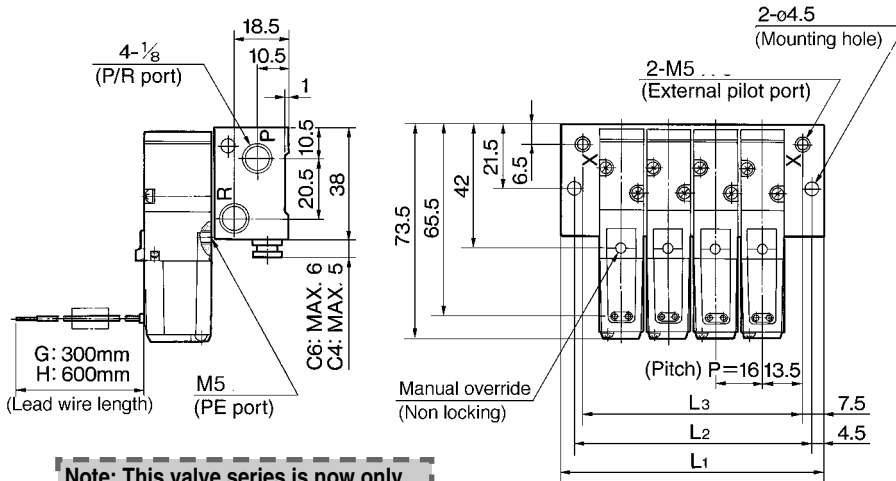
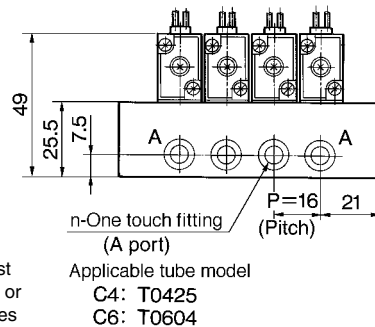
#### Applicable solenoid valve

VZ314R-□□□□-Q  
VZ324R-□□□□-Q

#### Applicable blank plate assembly

DXT200-8-1A

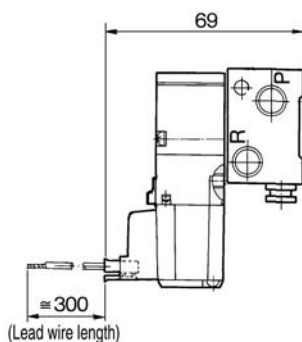
### Grommet (G), (H)



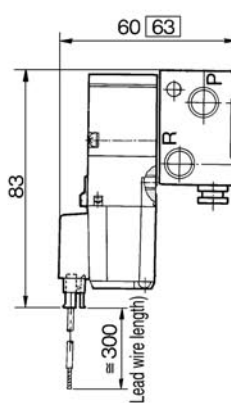
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346
L2	49	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321	337
L3	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

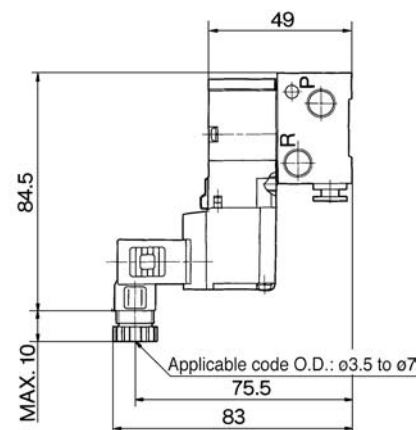
### L plug connector (L)



### M plug connector (M)



### DIN terminal (D)



□: with indicator light and surge voltage suppressor

# 3 Port Body Ported, Base Mounted Rubber Seal

# Series VZ500

## How to Order

**Ordering source area code**


Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

**Port size**

01	1/8
----	-----

**Option**

F: With foot bracket



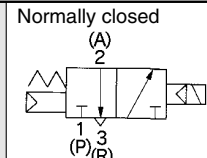
Note) · The bracket is not assembled.  
· Except for external pilot.

**Body Ported**    VZ5 1 2 □ 5 D □ □ □ 01 □ □ - Q

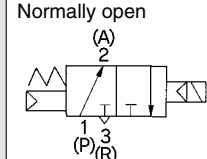
**Base Mounted**    VZ5 1 4 □ 5 D □ □ □ □ □ - Q

**Actuation**

1 Normally closed



2 Normally open

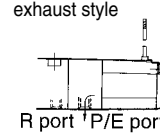


**Thread**

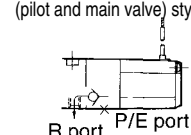
-	Rc (PT)
N	NPT
T	NPTF
F	G (PF)

**Body option**

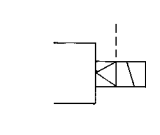
-: Individual pilot exhaust style



M: Common exhaust (pilot and main valve) style




R: External pilot style<sup>(1)</sup>



Note 1) VZ5□2R is only for manifold.

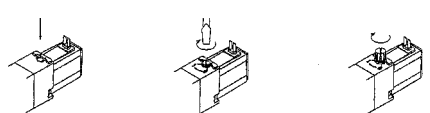
**Rated voltage**

1	100V AC 50/60Hz
2	200V AC 50/60Hz
3	110V AC 50/60Hz
4	220V AC 50/60Hz
5	24V DC
6	12V DC
9	Others

 Contact SMC for other voltages (9)

**Manual override**

-: Non-locking push style    B: Locking slotted style    C: Locking knob style



**Indicator light and surge voltage suppressor**

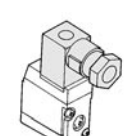
-	None
Z*	Indicator light and surge voltage suppressor
S	Surge voltage suppressor

\*Not available for DOZ


**Electrical entry**

**DIN terminal**

D: With connector

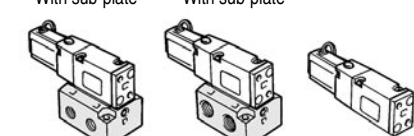


DO: Without connector



**Port size**

01: 1/8 With sub-plate    02: 1/4 With sub-plate    -: Without sub-plate



# VZ500

**Low Power Consumption:  
1.8WDC**

**Applicable for Vacuum Use  
-100kPa**

500R: External pilot style

**Exhaust measures for the pilot valve are unnecessary**

500M: Central exhaust style

It is not necessary to take exhaust measures for the pilot valve for environmental protection.

**Can also be used as a selector  
valve of a divider valve.**

500R: External pilot style

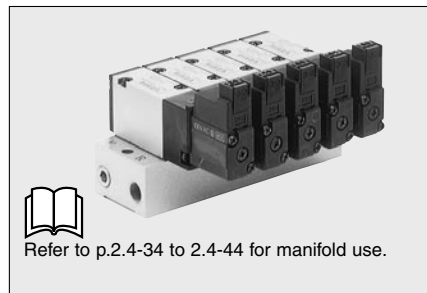
Can be used for universal porting.



**Body Ported**



**Base Mounted**



Refer to p.2.4-34 to 2.4-44 for manifold use.

## Specifications

Fluid	Air	
Operating pressure range (MPa)	Internal pilot	0.15 to 0.7
Ambient and fluid temperature (°C)	Max. 50	
Response time ms {0.5MPa} <sup>(1)</sup>	20 or less	
Max. operating frequency (Hz)	10	
Effective area	See below	
Manual override <sup>(2)</sup>	Non-locking push style, Locking slotted style, Locking knob style	
Pilot exhaust	Individual pilot exhaust, Common exhaust (pilot and main valve)	
Lubrication	Non-lube	
Mounting position	Free	
Impact/vibration resistance (m/s <sup>2</sup> ) <sup>(3)</sup>	300/50	
Protection structure	Dust proof	



Note 1) According to dynamic performance test of JIS B8374-1981. (Coil temperature 20°C, rated voltage, without surge voltage suppressor)

Note 2) When operating the locking style manually, apply torque of 0.2Nm or less.

Note 3) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve and armature, each one time when energized and de-energized. (Value in the initial stage.)

Vibration resistance: No malfunction from test with 8.3 to 2000Hz 1 sweep, to axis and right angle directions of main valve and armature, each one time when energized and de-energized. (Value in the initial stage.)

## Solenoid Specifications

\*Option

Electrical entry	DIN Terminal (D)	
Coil rated voltage V	AC50/60Hz	100, 200, 24*, 48*, 110*, 220*
	DC	24, 6*, 12*, 48*
Allowable voltage %	-15 to +10% of rated voltage	
Power consumption W [Current mA] <sup>(1)</sup>	DC	1.8(With light 2.1) [24V DC: 75(With light 87.5) ]
Apparent power VA [Current mA] <sup>(1)</sup>	AC	Inrush 4.5/50Hz, 4.2/60Hz [100V AC: 45/50Hz, 42/60Hz 200V AC: 22.5/50Hz, 21/60Hz ]
		Holding 3.5/50Hz, 3/60Hz [100V AC: 35/50Hz, 30/60Hz 200V AC: 17.5/50Hz, 15/60Hz ]
Surge voltage suppressor	DC: Diode, AC: ZNR	
Indicator light	DC: LED(red), AC: Neon light	



Note 1) At rated voltage

## Effective Area and Weight

Valve	Actuation	Port size	Effective area (mm <sup>2</sup> ) (Nz/min)	Weight (g)
Body Ported	VZ512	N.C.	1/8	9.0 (490.75)
	VZ522	N.O.		
Base Mounted (With sub-plate)	VZ514	N.C.	1/8, 1/4	160 (Without sub-plate 110)
	VZ524	N.O.		

## Option

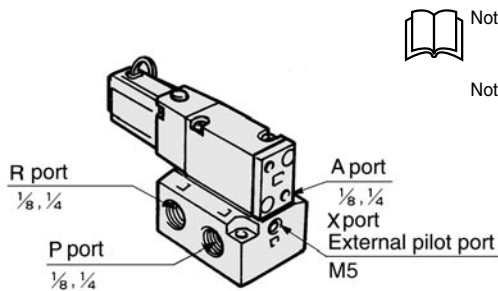
Description	Part No.	Note
Foot bracket	DXT201-19-1A	With screw (for VZ5□2)

## External Pilot: VZ500R

This obtains external pressure for the pilot valve separately from the main valve pressure. It can be operated with a low pressure line with a vacuum (to -100kPa) or below 0.15MPa.

### Specifications

Applicable model	Base mounted (VZ314R, VZ324R)	
Operating pressure range MPa	Main pressure	-100kPa to 0.7
	External pilot pressure	0.15 to 0.7

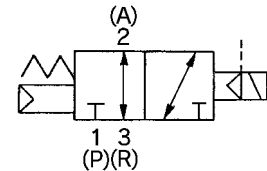


Note 1) Refer to the p.2.4-34 for manifold base.

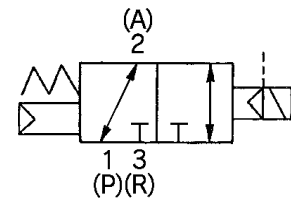
Note 2) In the case of the body ported style, the pilot style (VZ3□2R) is used exclusively on a manifold. An external pilot style that can be used individually is available as an Order Made specification.

### JIS symbol

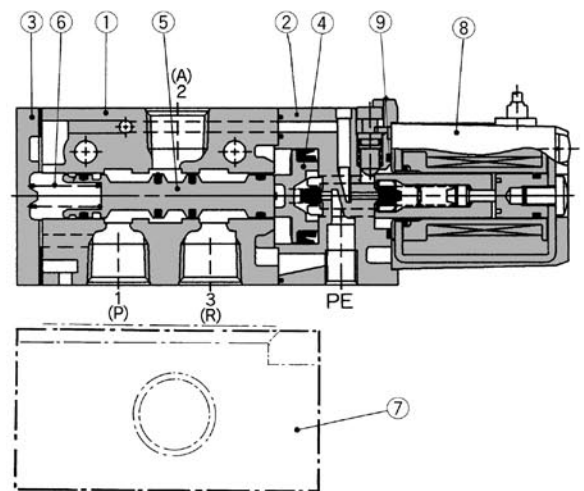
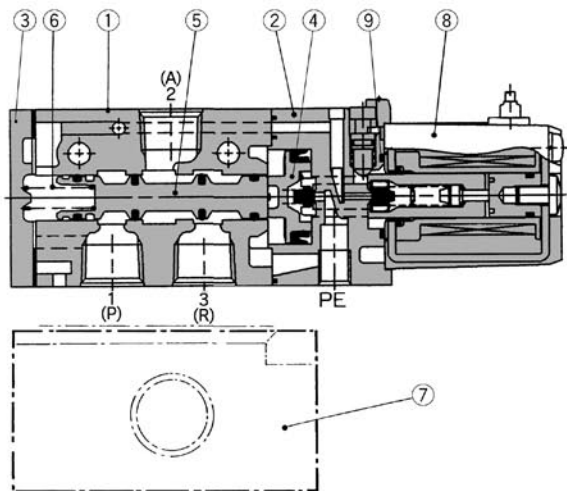
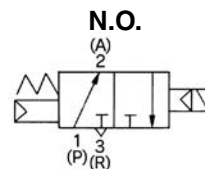
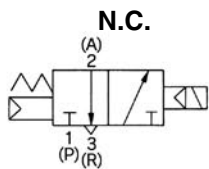
VZ51□R



VZ52□R



## Construction



### Component Parts

No.	Description	Material	Note
①	Body	Aluminium die cast	Platinum silver
②	Piston plate	Resin	Black
③	End cover	Aluminium die cast	Black
④	Piston	Resin	—
⑤	Spool valve ass'y	—	—
⑥	Spool spring	Stainless steel	—

### Replacement Parts

No.	Description	Material	Part No.	Note
⑦	Sub-plate	Aluminium die cast	DXT201-2-1P	1/8
			DXT201-2-2P	1/4
⑧	Solenoid ass'y	Epoxy, stainless steel		
⑨	O ring	NBR	13 X 11 X 1	Common with VZ100

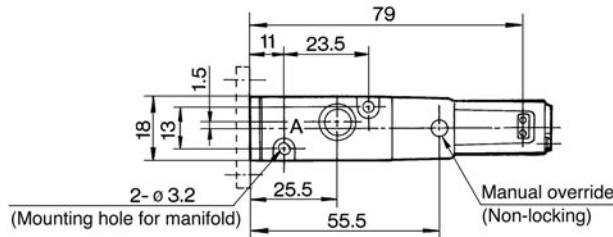
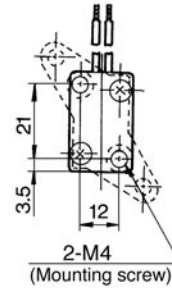
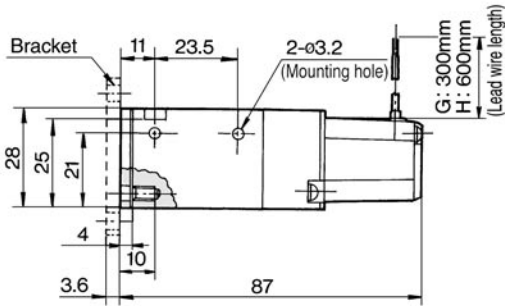
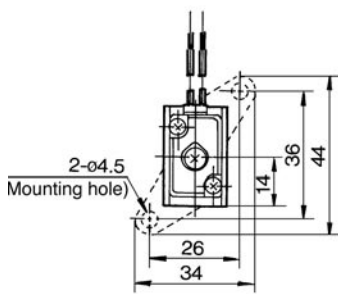
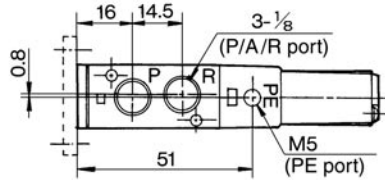
# VZ500



## Body Ported

**Grommet (G), (H)**  
**VZ5□2-□G□□-01**

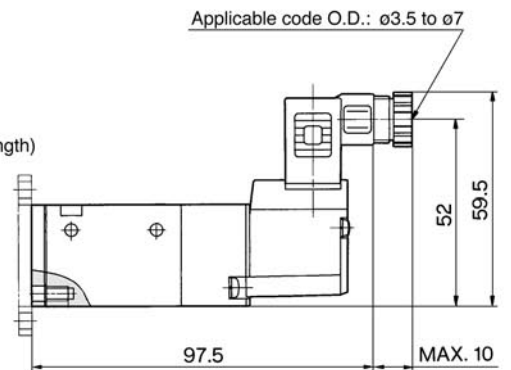
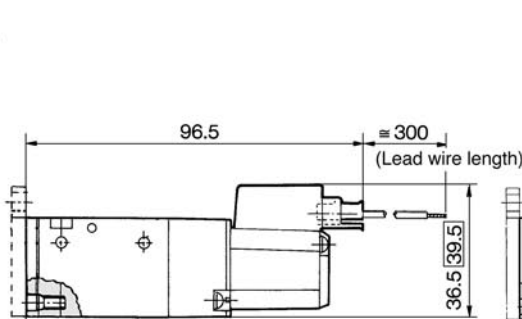
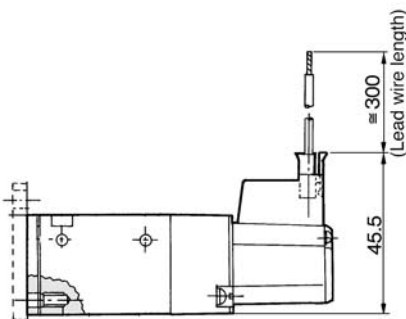
**Note:** This valve series is now only available with DIN connector.



**L plug connector (L)**  
**VZ5□2-□L□□-01**

**M plug connector (M)**  
**VZ5□2-□M□□-01**

**DIN terminal (D)**  
**VZ5□2-□D□□-01-Q**



□: with indicator light and surge voltage suppressor

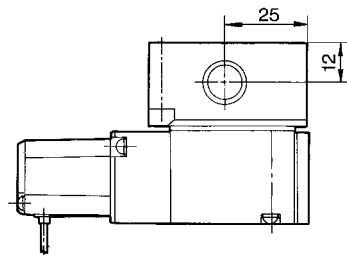
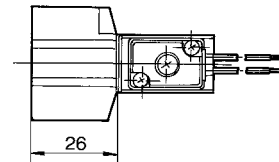
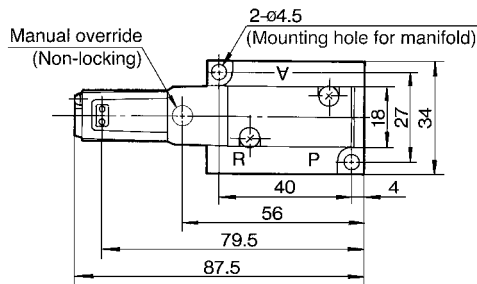
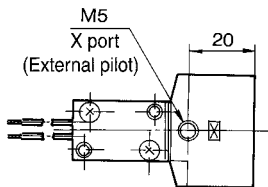
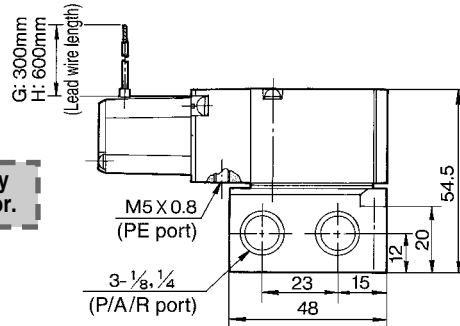




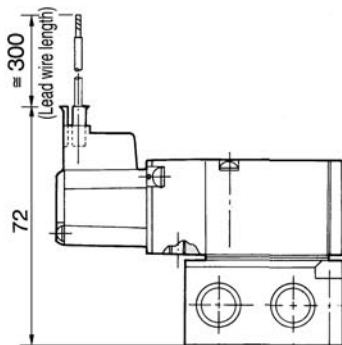
## Base Mounted

### Grommet (G), (H) VZ5□4-□<sup>G</sup>□□□<sup>01</sup>-<sup>02</sup>

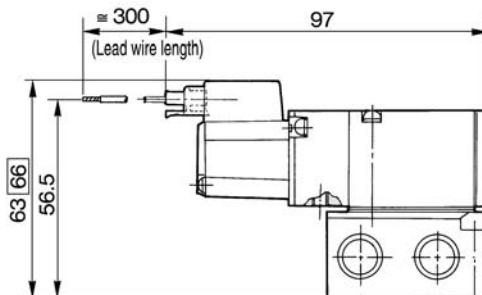
Note: This valve series is now only available with DIN connector.



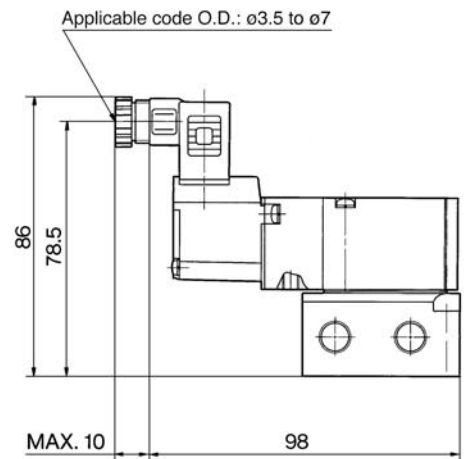
### L plug connector (L) VZ5□4-□L□□□<sup>01</sup>-<sup>02</sup>



### M plug connector (M) VZ5□4-□M□□□<sup>01</sup>-<sup>02</sup>

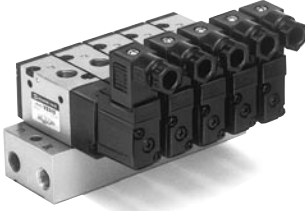


### DIN terminal (D) VZ5□4-□D□□□<sup>01</sup>-<sup>02</sup>-Q



□: with indicator light and surge voltage suppressor

# Series VZ500 Manifold



## Manifold Specifications

Model	Internal pilot	20-□1	21-□1	40-□2	41-□2	41-□1
	External pilot	-	21R-□1	-	41R-□2	41R-□1
Manifold	Single base/B mount					
P(SUP)/R(EXH) style	Common SUP/Common EXH					
Stations	2 to 20 stations					
A port piping	Position	Valve	Valve	Base	Base	Base
	Direction	Top	Top	Bottom	Bottom	Side
Port size	P/R port	1/8	1/4	1/8	1/4	1/4
	A port	1/8	1/8	1/8	1/8	1/8 C6 (ø6 One-touch fitting) C8 (ø8 One-touch fitting)
	X port <sup>(1)</sup>	-	M5	-	M5	M5
Valve effective area mm <sup>2</sup> (Cv) <sup>(2)</sup>	Body ported VZ5□2/VZ5□2R	10.6(0.59)		-		
	Base mounted VZ5□4/VZ5□4R	-		10.2(0.57)	10.2(0.57)	1/8: 9.2(0.51) C6: 8.8(0.49) C8: 10(0.56)
Page on How to Order	Internal pilot	p.2.4-35	p.2.4-36	p.2.4-37	p.2.4-38	p.2.4-39, 2.4-40
	External pilot	-	p.2.4-41	-	p.2.4-42	p.2.4-43, 2.4-44



Note 1) Only for external pilot

Note 2) Value at manifold base mounted

## How to Order Manifold Base

To order valves and blank plate assembly mounted onto the manifold, list valves and blank plate assembly with manifold base.

(Sample)

**VV3Z5-20-031-Q**...1 pc. (Manifold base)

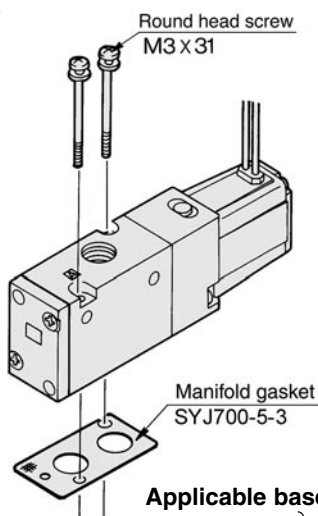
**VZ512-5D-01-Q** .....2 pcs. (Valve)

**DXT201-15-1A** .....1 pc. (Blank plate ass'y)

## Option

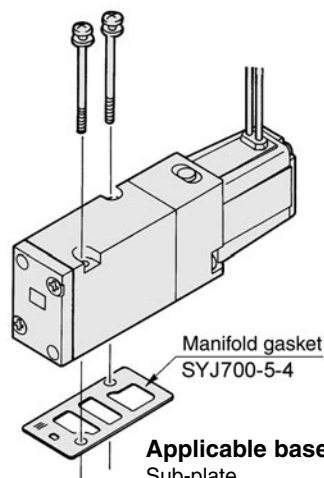
### Combinations of solenoid valve, manifold gasket and manifold base

#### Body ported (VZ5□2)



**Applicable base**  
 VV3Z5-20-□1  
 VV3Z5-21-□1  
 VV3Z5-21R-□1 } Manifold base

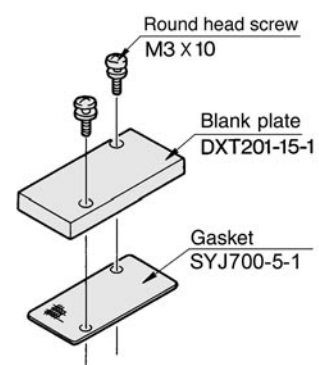
#### Base mounted (VZ5□4)



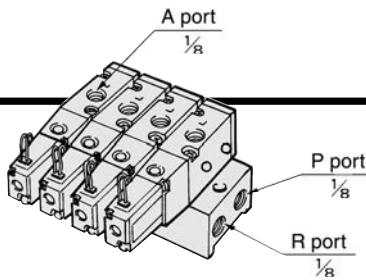
**Applicable base**  
 Sub-plate  
 VV3Z5-40-□2  
 VV3Z5-41-□2  
 VV3Z5-41-□1  
 VV3Z5-41R-□2  
 VV3Z5-41R-□1 } Manifold base

### Blank plate Assembly

#### DXT201-15-1A



## For Internal Pilot 20 Type Manifold: Top Ported



### How to Order

**E** VV3Z5 - 20 - **05** 1 -  - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
...	...
20	20 stations

#### P, R port thread

-	Rc (PT)
00F	G (PF)
00N	NPT
00T	NPTF

Note) If more than 6 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 6 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

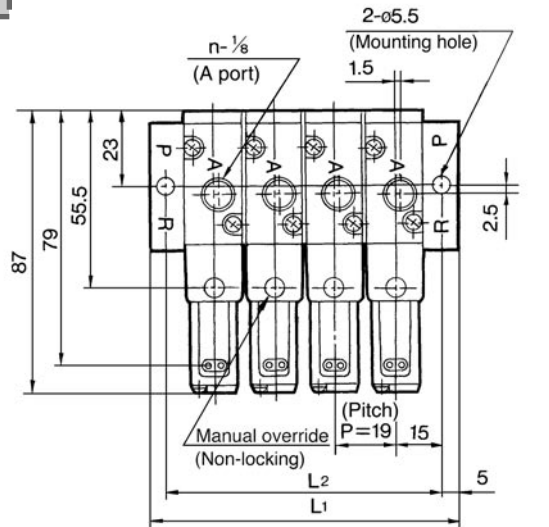
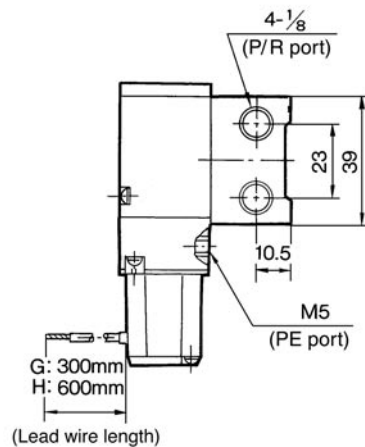
#### Applicable solenoid valve

VZ512-□□□□-01-Q  
VZ512M-□□□□-01-Q  
VZ522-□□□□-01-Q  
VZ522M-□□□□-01-Q

#### Applicable blank plate assembly

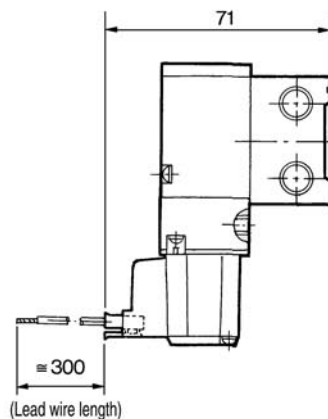
DXT201-15-1A

**Note: This valve series is now only available with DIN connector.**

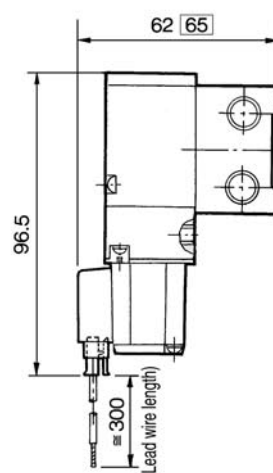


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	59	78	97	116	135	154	173	192	211	230	249	268	287	306	325	344	363	382	401
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

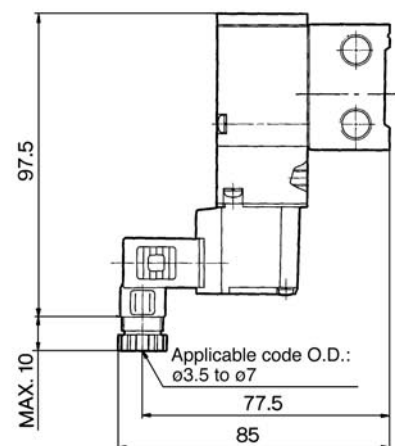
### L plug connector (L)



### M plug connector (M)

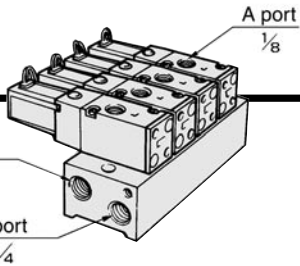


### DIN terminal (D)



: with indicator light and surge voltage suppressor

# VZ500



## For Internal Pilot 21 Type Manifold: Top Ported

### How to Order

**E** VV3Z5 - 21 - **05** 1 -    - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

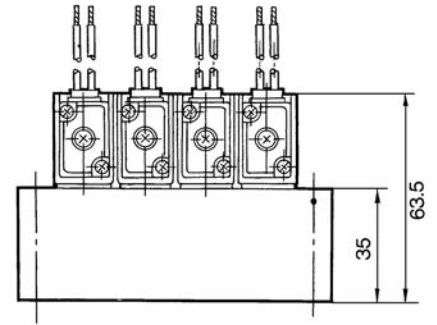
02	2 stations
...	...
20	20 stations

#### P, R port thread

-	Rc (PT)
00F	G (PF)
00N	NPT
00T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

### Grommet (G), (H)



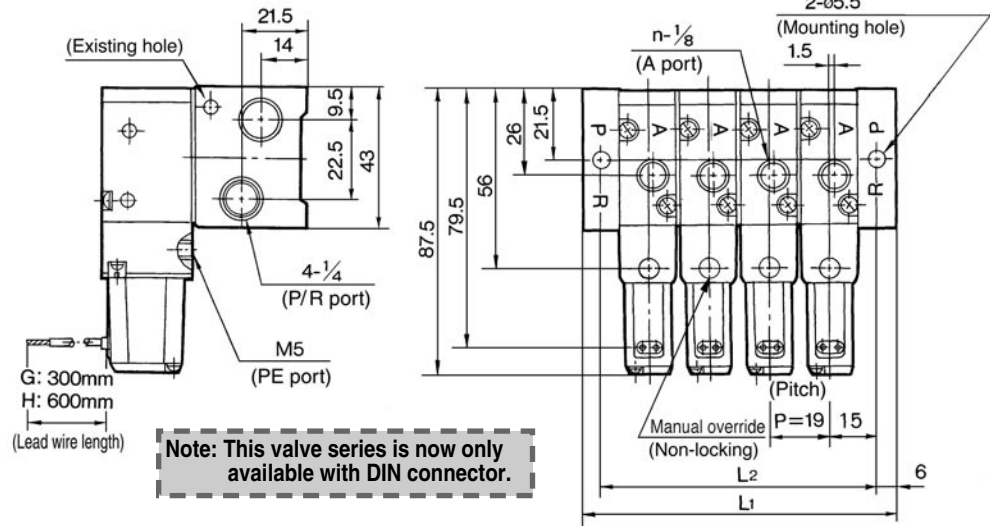
Note) If there are more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### Applicable solenoid valve

VZ512-□□□□-01-Q  
VZ512M-□□□□-01-Q  
VZ522-□□□□-01-Q  
VZ522M-□□□□-01-Q

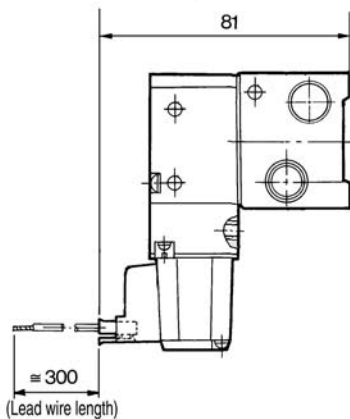
#### Applicable blank plate assembly

DXT201-15-1A

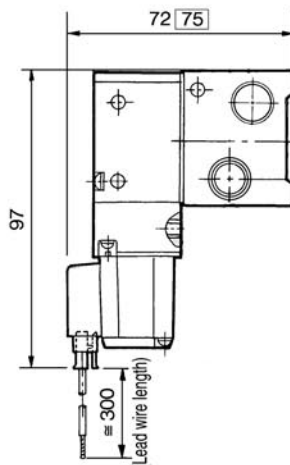


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L <sub>1</sub>	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L <sub>2</sub>	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

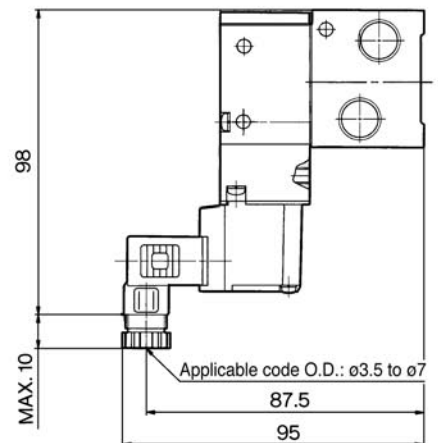
### L plug connector (L)



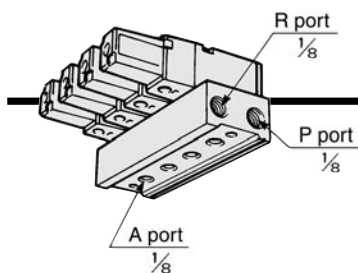
### M plug connector (M)



### DIN terminal (D)

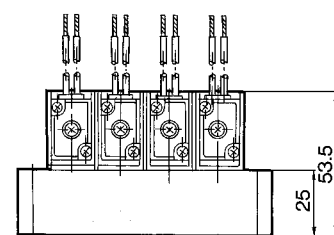
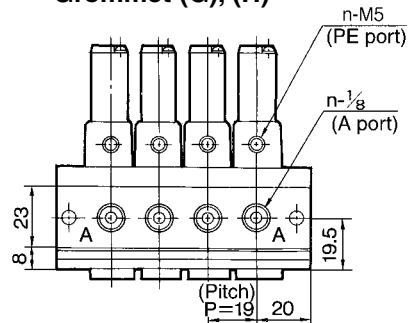


with indicator light and surge voltage suppressor



## For Internal Pilot 40 Type Manifold: Bottom Ported

### Grommet (G), (H)



### How to Order

**E** VV3Z5 - 40 - **05** 2 - 01    - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
...	...
20	20 stations

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

#### A port size

01	1/8
----	-----

Note) If more than 6 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 6 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

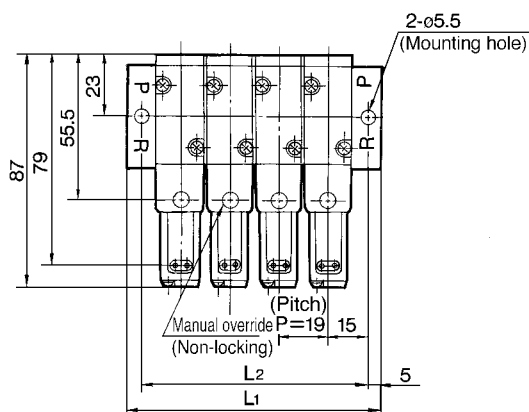
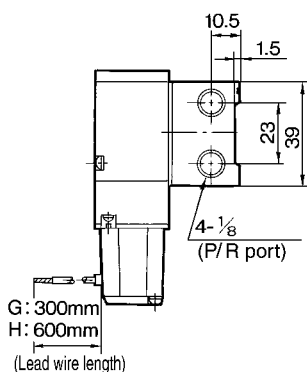
#### Applicable solenoid valve

VZ514-□□□□-Q  
VZ514M-□□□□-Q  
VZ524-□□□□-Q  
VZ524M-□□□□-Q

#### Applicable blank plate assembly

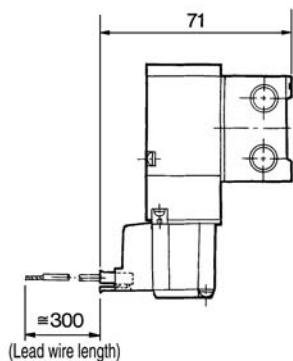
DXT201-15-1A

**Note: This valve series is now only available with DIN connector.**

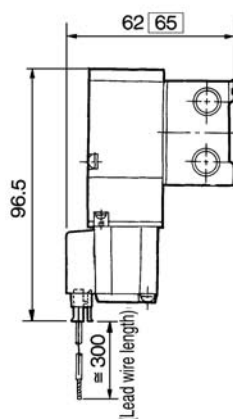


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	59	78	97	116	135	154	173	192	211	230	249	268	287	306	325	344	363	382	401
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

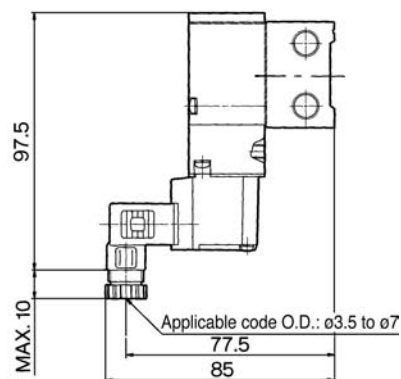
### L plug connector (L)



### M plug connector (M)



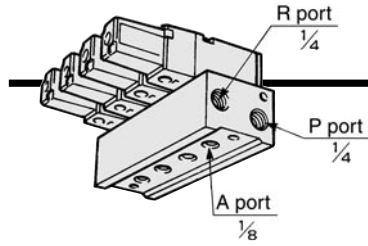
### DIN terminal (D)



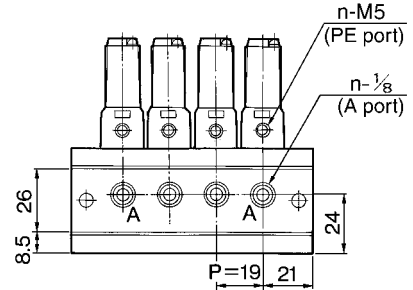
: with indicator light and surge voltage suppressor

# VZ500

## For Internal Pilot 41 Type Manifold: Bottom Ported



### Grommet (G), (H)



### How to Order

**E** VV3Z5 - 41 - **05** 2 - 01    - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
...	...
20	20 stations

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

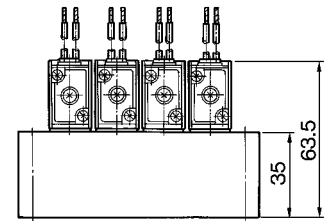
#### A port size

01	1/8
----	-----

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

**Note: This valve series is now only available with DIN connector.**

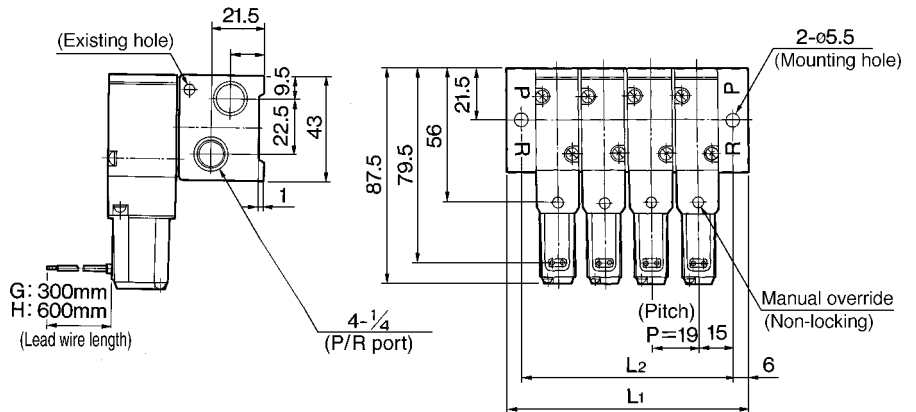


#### Applicable solenoid valve

VZ514-□□□□-Q  
VZ514M-□□□□-Q  
VZ524-□□□□-Q  
VZ524M-□□□□-Q

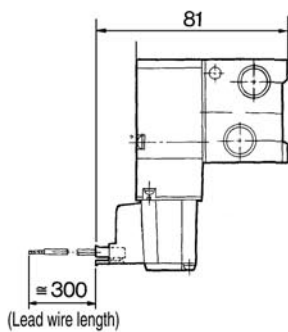
#### Applicable blank plate assembly

DXT201-15-1A

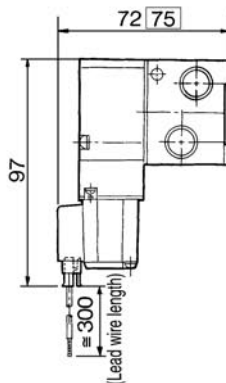


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

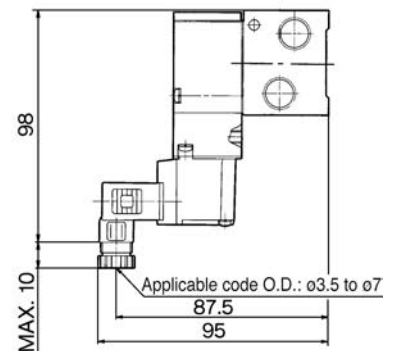
### L plug connector (L)



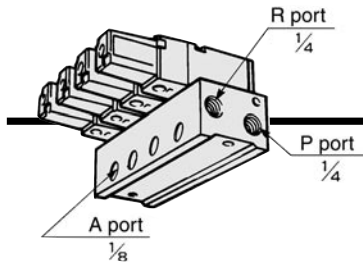
### M plug connector (M)



### DIN terminal (D)



□ : with indicator light and surge voltage suppressor



## For Internal Pilot 41 Type Manifold: Side Ported

### How to Order

**E** VV3Z5 - 41 - **05** 1 - 01    - Q

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
...	...
20	20 stations

#### A port size

01	1/8
----	-----

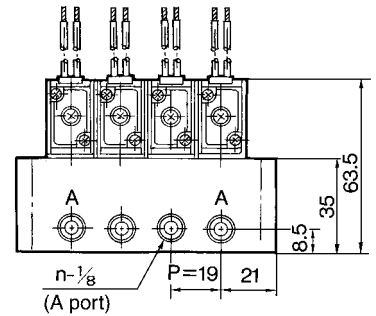
#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

### Grommet (G) (H)

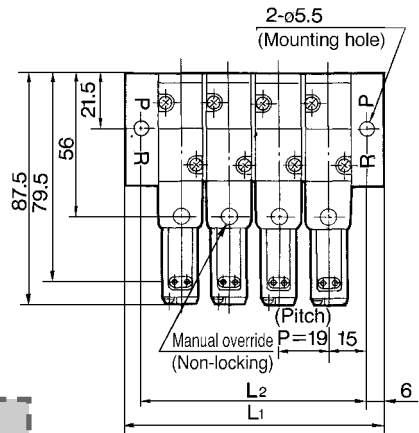
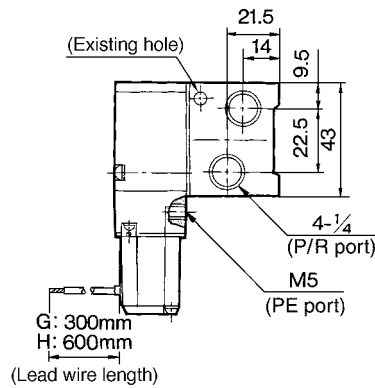


#### Applicable solenoid valve

VZ514-□□□□-Q  
VZ514M-□□□□-Q  
VZ524-□□□□-Q  
VZ524M-□□□□-Q

#### Applicable blank plate assembly

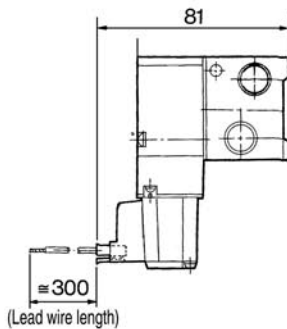
DXT201-15-1A



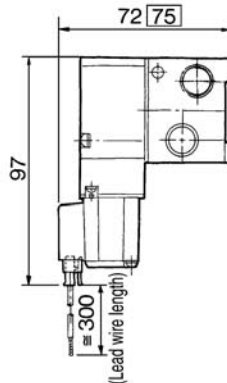
**Note: This valve series is now only available with DIN connector.**

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

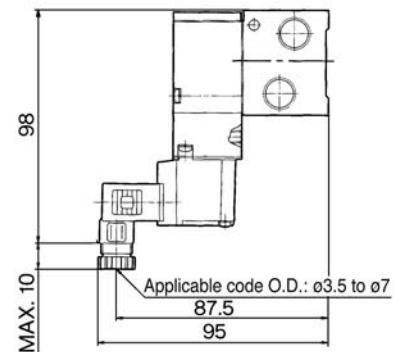
### L plug connector (L)



### M plug connector (M)

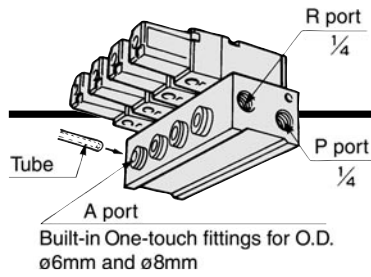


### DIN terminal (D)



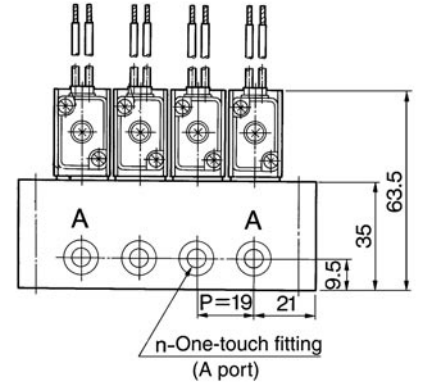
: with indicator light and surge voltage suppressor

# VZ500



## For Internal Pilot 41 Type Manifold: Side Ported

### Grommet (G), (H)



Applicable tube model  
C6: T0604  
C8: T0806

### How to Order

**E** VV3Z5 - 41 - **05** 1 - **C6**  - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
⋮	⋮
20	20 stations

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### A port size

C6	ø6 One-touch fitting
C8	ø8 One-touch fitting

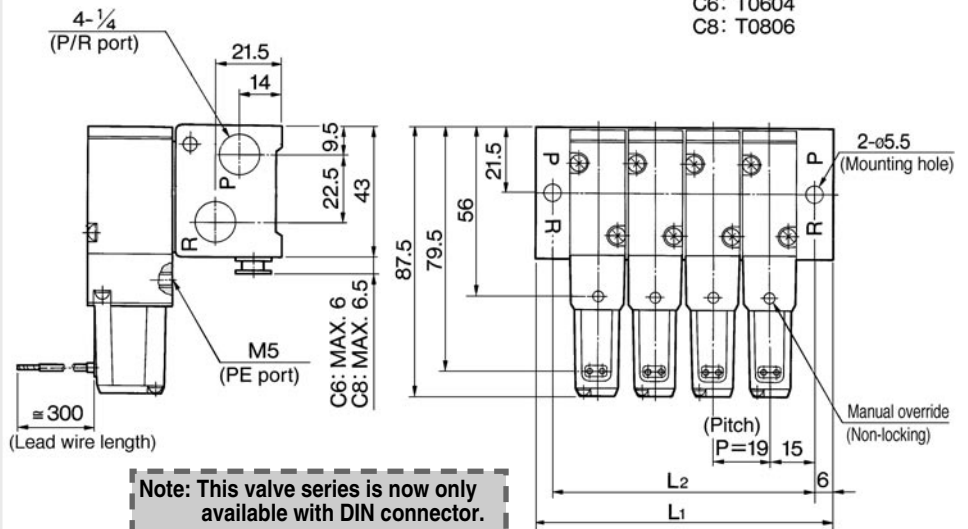
Note) If > 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

#### Applicable solenoid valve

VZ514-□□□□-Q  
VZ514M-□□□□-Q  
VZ524-□□□□-Q  
VZ524M-□□□□-Q

#### Applicable blank plate assembly

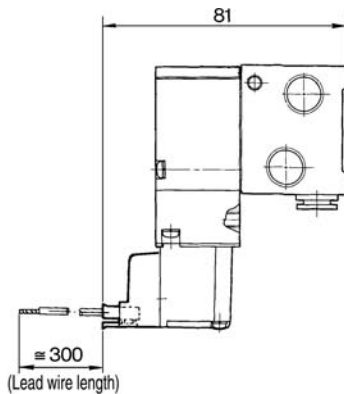
DXT201-15-1A



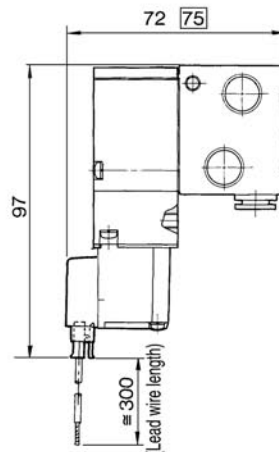
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

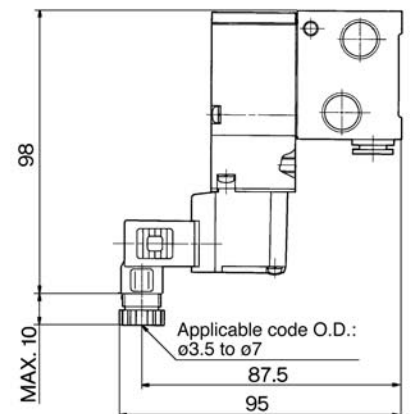
### L plug connector (L)



### M plug connector (M)

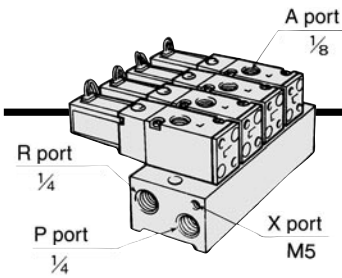


### DIN terminal (D)



□: with indicator light and surge voltage suppressor





## For External Pilot 21R Type Manifold: Top Ported

### How to Order

**E** VV3Z5 - 21R - **05** 1 - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

#### Stations

02	2 stations
⋮	⋮
20	20 stations

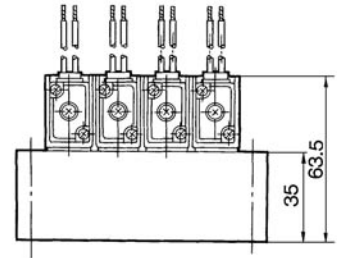
#### P, R port thread

-	Rc (PT)
00F	G (PF)
00N	NPT
00T	NPTF

Note) If more than 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

#### Grommet (G), (H)

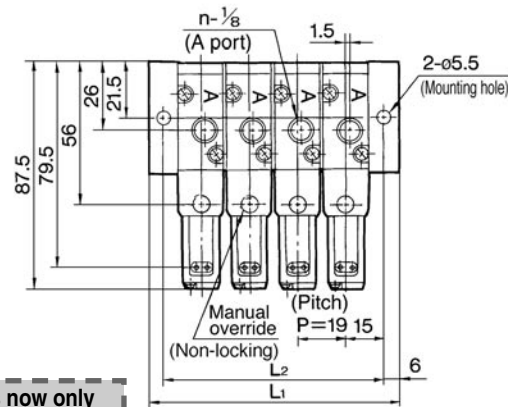
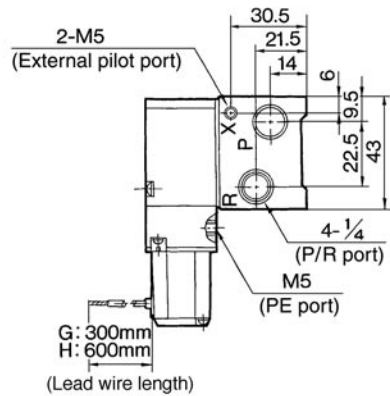


#### Applicable solenoid valve

VZ512R-□□□□-Q  
VZ522R-□□□□-Q

#### Applicable blank plate assembly

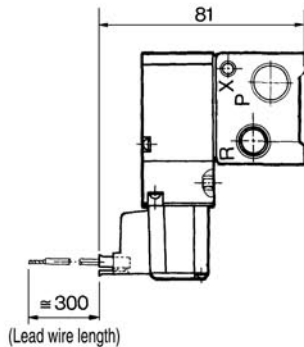
DXT201-15-1A



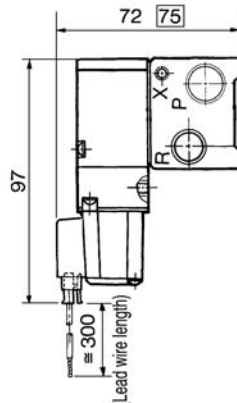
Note: This valve series is now only available with DIN connector.

Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

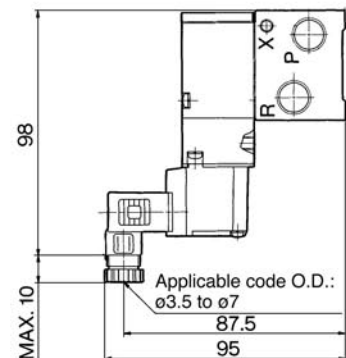
#### L plug connector (L)



#### M plug connector (M)



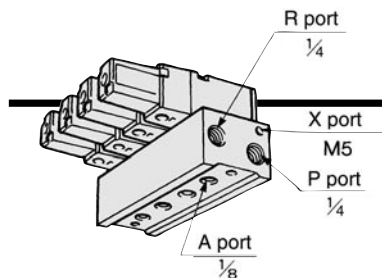
#### DIN terminal (D)



□: with indicator light and surge voltage suppressor

# VZ500

## For External Pilot 41R Type Manifold: Bottom Ported



Grommet (G), (H)

### How to Order

**E** VV3Z5 - 41R - **05** 2 - 01    - Q

#### Ordering source area code

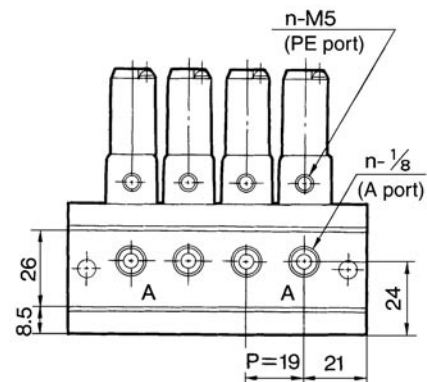
Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

A port size	
01	1/8

P, R port thread	
-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.



Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

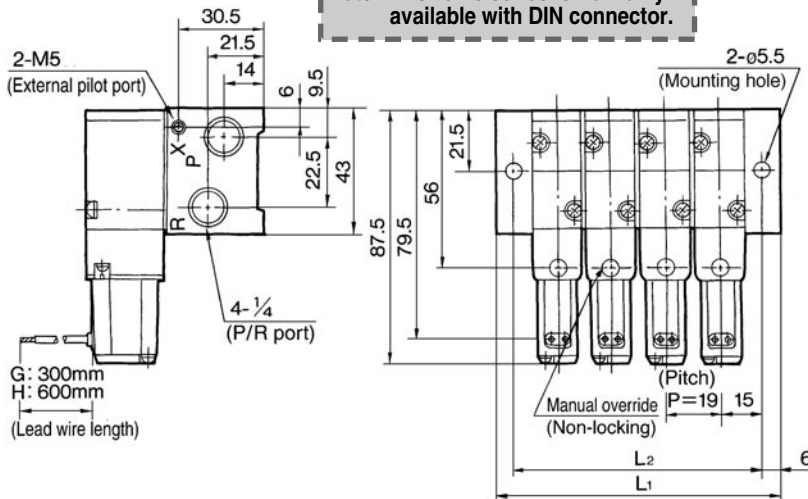
#### Applicable solenoid valve

VZ514R-□□□□-Q  
VZ524R-□□□□-Q

#### Applicable blank plate assembly

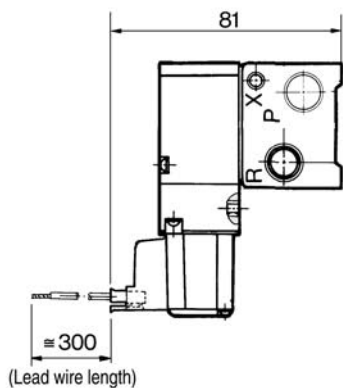
DXT201-15-1A

Note: This valve series is now only available with DIN connector.

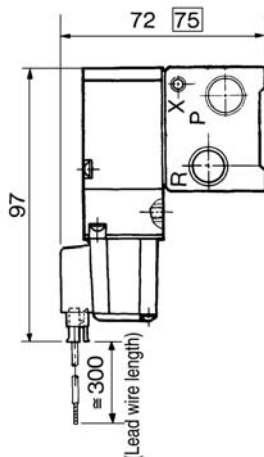


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

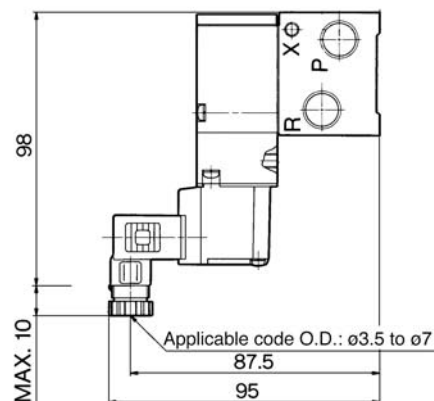
#### L plug connector (L)



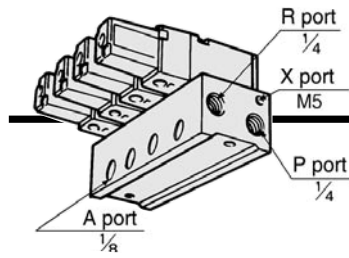
#### M plug connector (M)



#### DIN terminal (D)



□ : with indicator light and surge voltage suppressor



## For External Pilot 41R Type Manifold: Side Ported

### How to Order

**E** VV3Z5 - 41R - **05** 1 - **01**  - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

A port size	
01	1/8

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

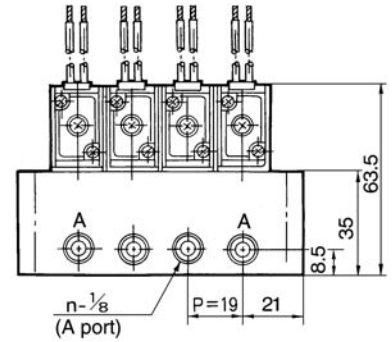
#### Applicable solenoid valve

VZ514R-□□□□-Q  
VZ524R-□□□□-Q

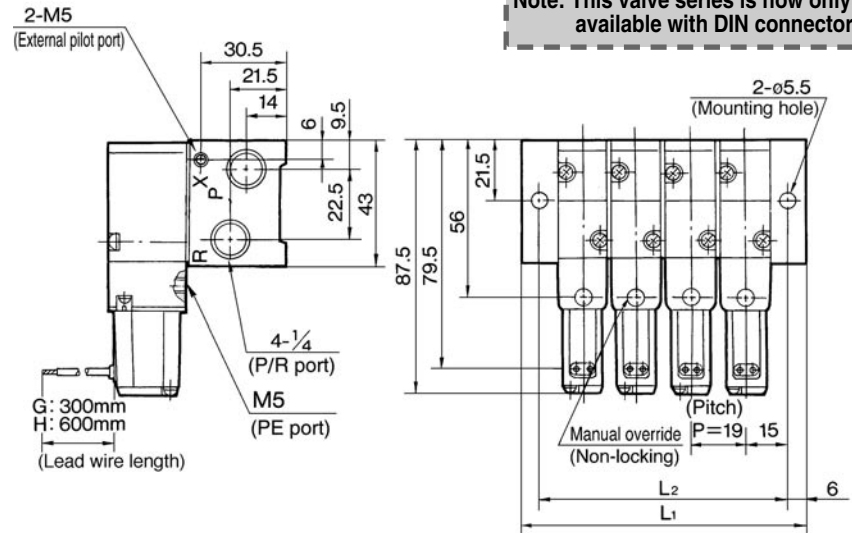
#### Applicable blank plate assembly

DXT201-15-1A

### Grommet (G), (H)

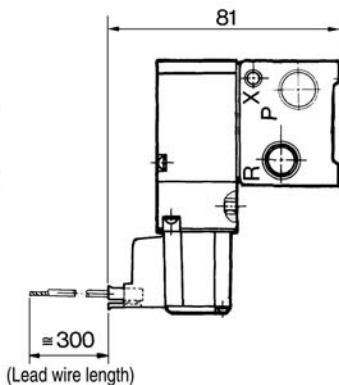


Note: This valve series is now only available with DIN connector.

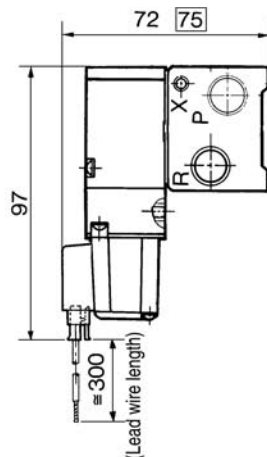


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

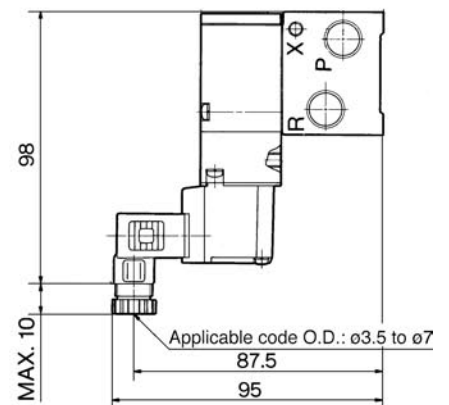
### L plug connector (L)



### M plug connector (M)



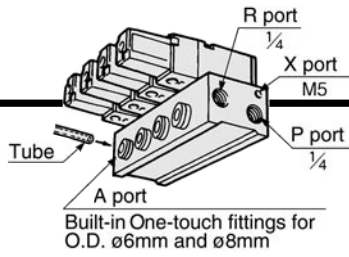
### DIN terminal (D)



: with indicator light and surge voltage suppressor

# VZ500

## For External Pilot 41R Type Manifold: Side Ported



### How to Order

**E** VV3Z5 - 41R - **05** 1 - **C6**  - **Q**

#### Ordering source area code

Code	areas
-	Japan, Asia Australia, England
E	Europe
N	North America

Stations	
02	2 stations
⋮	⋮
20	20 stations

#### A port size

C6	ø6 One-touch fitting
C8	ø8 One-touch fitting

#### P, R port thread

-	Rc (PT)
F	G (PF)
N	NPT
T	NPTF

Note) If more than 9 stations, supply air to P port on both sides of the manifold and exhaust from R port on both sides of the manifold.

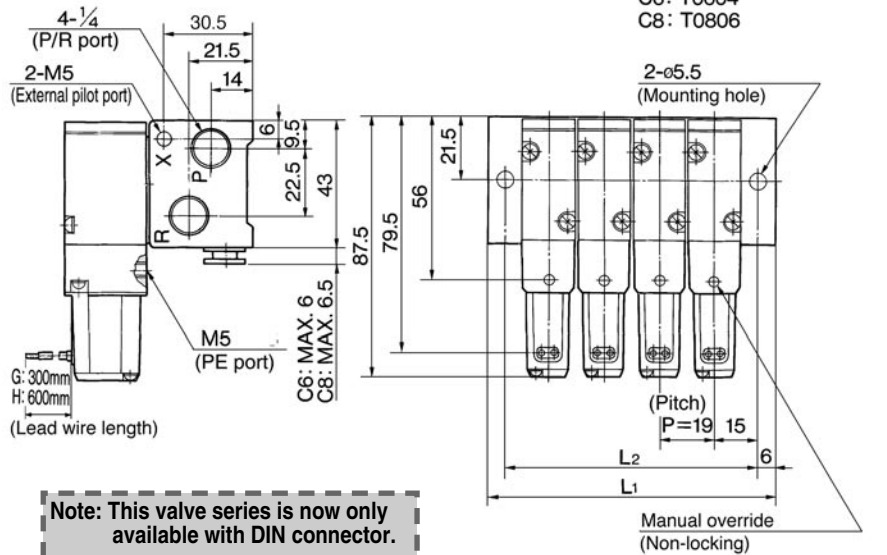
Note) If > 9 stations, supply and exhaust air through P port or R port on both sides of the manifold.

#### Applicable solenoid valve

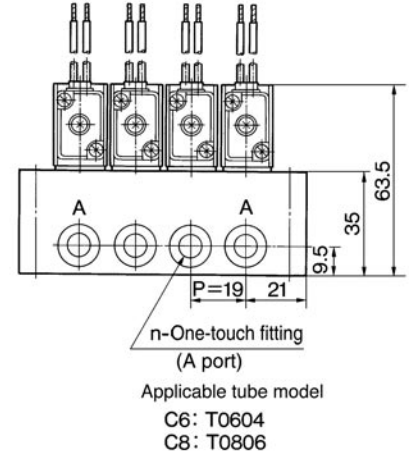
VZ514R-□□□□-Q  
VZ524R-□□□□-Q

#### Applicable blank plate assembly

DXT201-15-1A

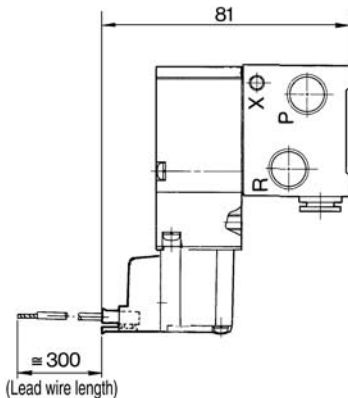


### Grommet (G), (H)

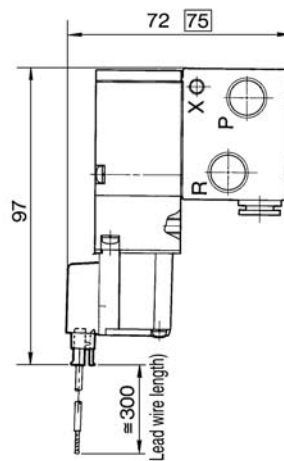


Station	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L2	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

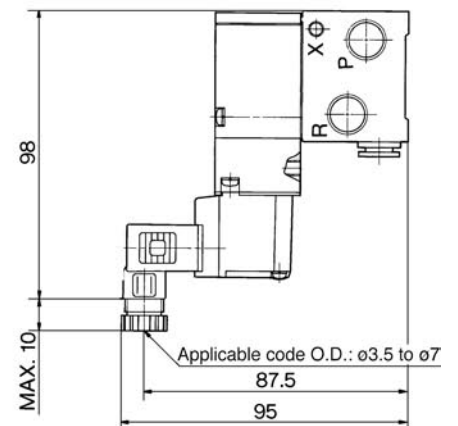
### L plug connector (L)



### M plug connector (M)



### DIN terminal (D)



□ : with indicator light and surge voltage suppressor