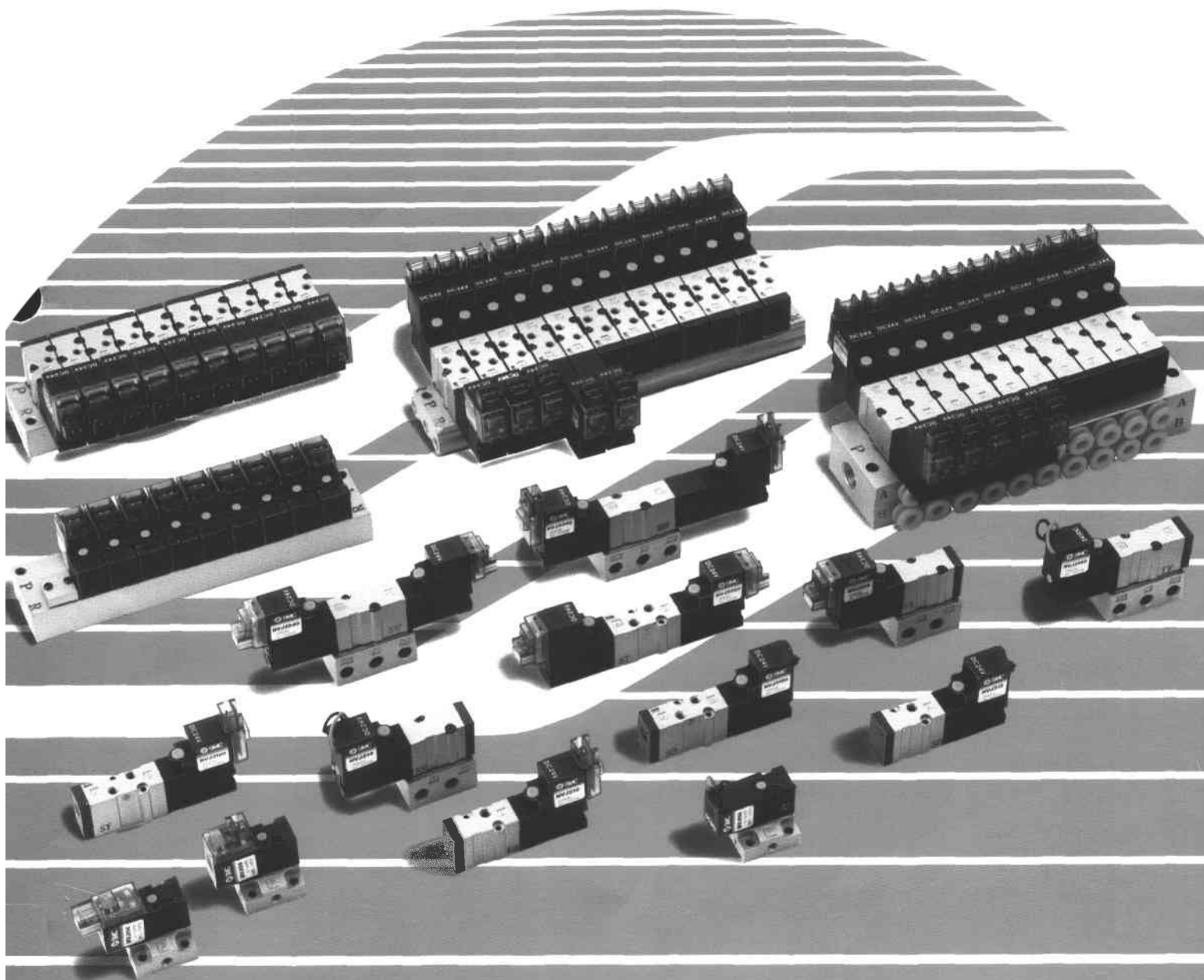



SMC Pneumatics, Inc.

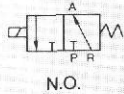
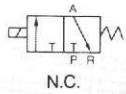
NVJ 100, 300, 3000

3•5 Port Solenoid Valve/Rubber Seal Type

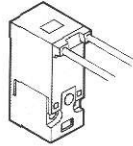


Variation of Series: NVJ

3 Port Direct Solenoid Operated Series: NVJ100



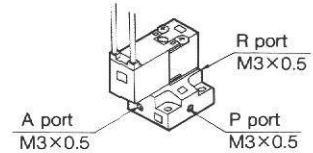
Base Mounted Type



NVJ114 is used as a pilot valve for NVJ300 and NVJ3000

Page 3

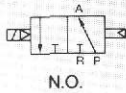
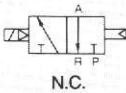
With Subplate



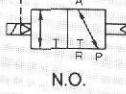
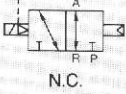
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3 Port Solenoid Pilot Operated Series: NVJ300

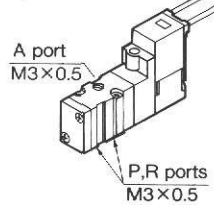
Internal Pilot Type



External Pilot Type

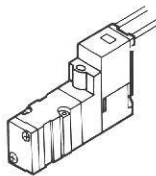


Body Ported Type



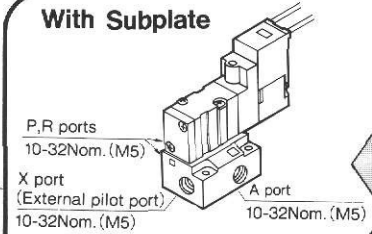
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Base Mounted Type



Page 7

With Subplate



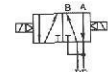
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4,5 Port Solenoid Pilot Operated Series: NVJ3000

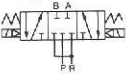
4 Port (Manifold only)



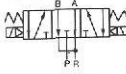
2 Position
Single Solenoid



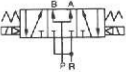
2 Position
Double Solenoid



3 Position
Closed Center



3 Position
Exhaust Center



3 Position Pressure Center

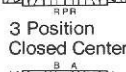
5 Port



2 Position
Single Solenoid



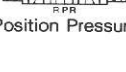
2 Position
Double Solenoid



3 Position
Closed Center

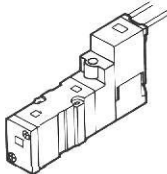


3 Position
Exhaust Center



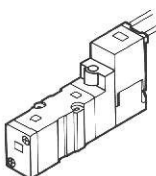
3 Position Pressure Center

Base Mounted Type (4 Port)



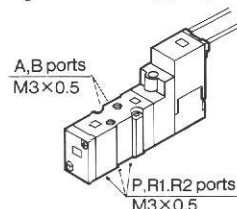
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Base Mounted Type (5 Port)



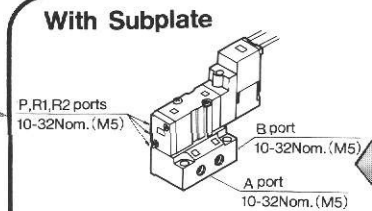
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Body Ported Type (5 Port)



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With Subplate



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Refer to page 20

Refer to page 20

Refer to page 20

Rubber Seal Type

Series: NVJ100•300•3000

1WDC: Power consumption

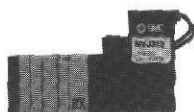
3 Port, Direct Solenoid Operated Series: NVJ100



Cv Factor: 0.008
(NVJ114)

Width
10mm

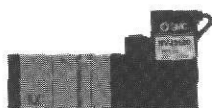
3 Port, Solenoid Pilot Operated Series: NVJ300



Cv Factor: 0.1
(Base Mounted Type
With Subplate)

Width
10mm

4•5 Port, Solenoid Pilot Operated Series: NVJ3000



Cv Factor: 0.1
(2 Position Base
Mounted Type
With Subplate)

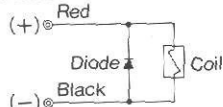
Width
10mm

NVJ100:
Can be used for
vacuum application.
NVJ300:
Only external pilot
type can be used for
vacuum application.

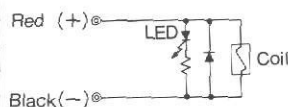
24VDC	1W
12VDC	(0.45W)†
6VDC	1W
5VDC	
3VDC	
110VAC*	1.4W

*rectified
†optional low power

**With Surge Voltage
Suppressor**



**With Indicator Light and
Surge Voltage Suppressor**



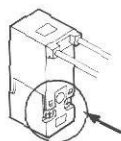
● Surge Voltage
Protection Circuit

● Electrical Entry

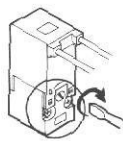
No copper in
contact with
media.

Manual Override

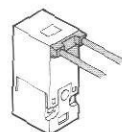
Non-Locking
Push Type



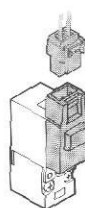
Slotted locking Type



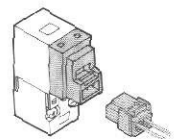
Grommet



M Type
Plug Connector



L Type
Plug Connector



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Manifold Dimensions.....P6

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Series: NVJA3000

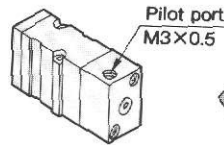
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Air Operated Valve: NVJA

3 Port Air Operated Valves Series: NVJA300

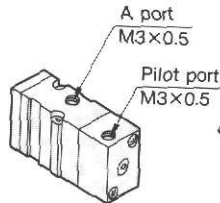


Base Mounted Type



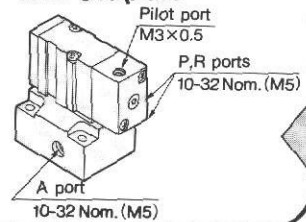
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Body Ported Type



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With Subplate



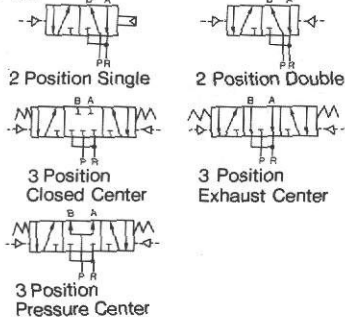
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Manifold

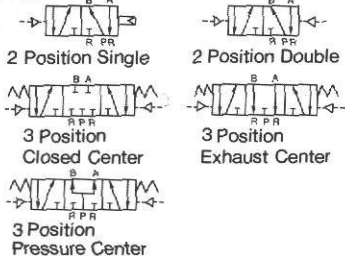
Same as NVJ300 Series manifold base Type 20, 41, S41, 42, S42.

4 Port, 5 Port Air Operated Valves Series: NVJA3000

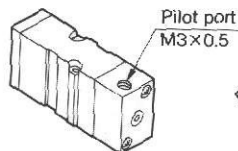
4 Port



5 Port

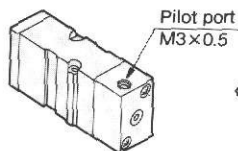


Base Mounted Type (5 Port)



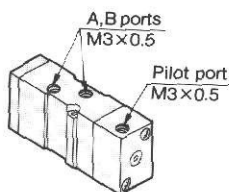
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Base Mounted Type (4 Port)



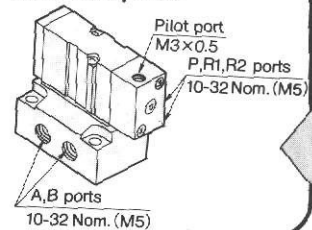
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Body Ported Type (5 Port)



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With Subplate



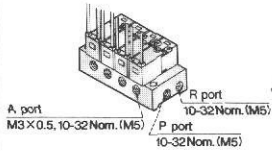
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Manifold

Same as NVJ3000 Series.

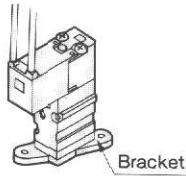
Manifold

Common EXH. Manifold / Side Ported

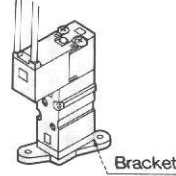


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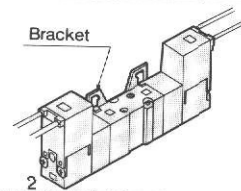
Optional Accessory / Bracket



NVJ302-0000-M3-F
NVJ302M-0000-M3-F



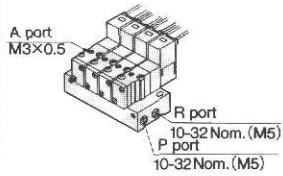
NVJ312-0000-M3-F
(For Single Solenoid Only)



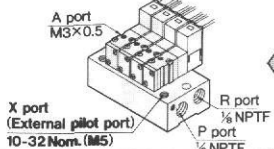
NVJ332-0000-M3-F
(For Double Solenoid)

Common EXH. Manifolds / Top Ported

Type 20

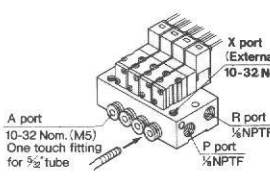


Type 20R / For External Pilot

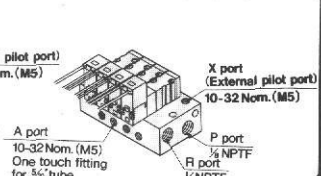


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Type 42R / For External Pilot

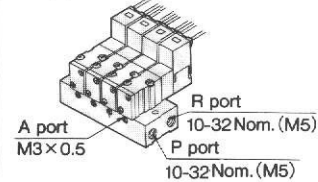


Type S42R / For External Pilot

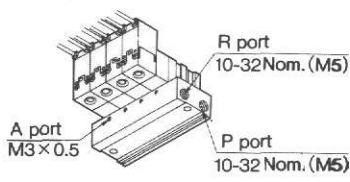


Common EXH. Manifolds / Side Ported

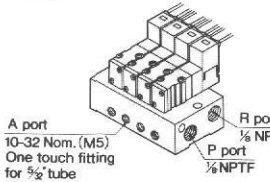
Type 41



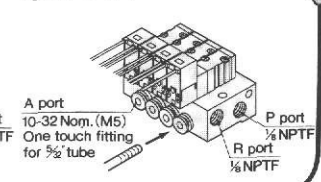
Type S41



Type 42



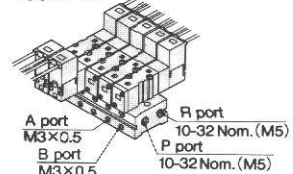
Type S42



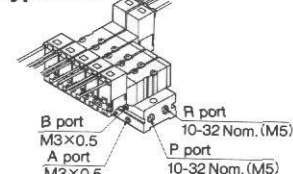
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Common EXH. Manifolds / Side Ported

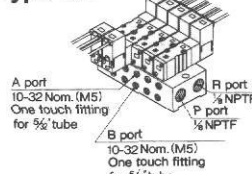
Type 31



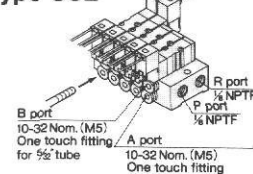
Type S31



Type 32



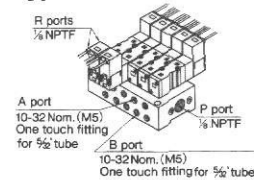
Type S32



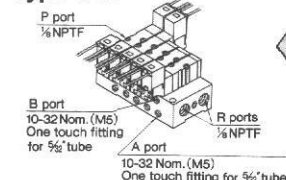
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Common EXH. Manifolds / Side Ported

Type 41



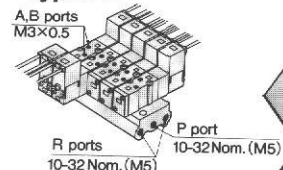
Type S41



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Common EXH. Manifold / Top Ported

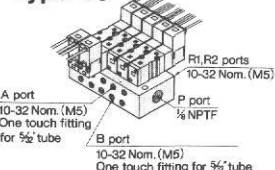
Type 20



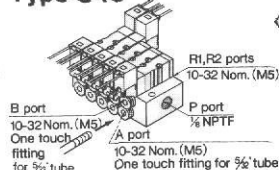
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Individual EXH. Manifolds / Side Ported

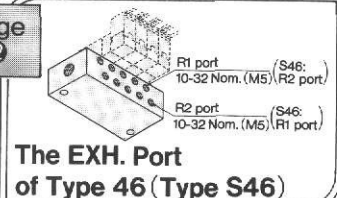
Type 46



Type S46



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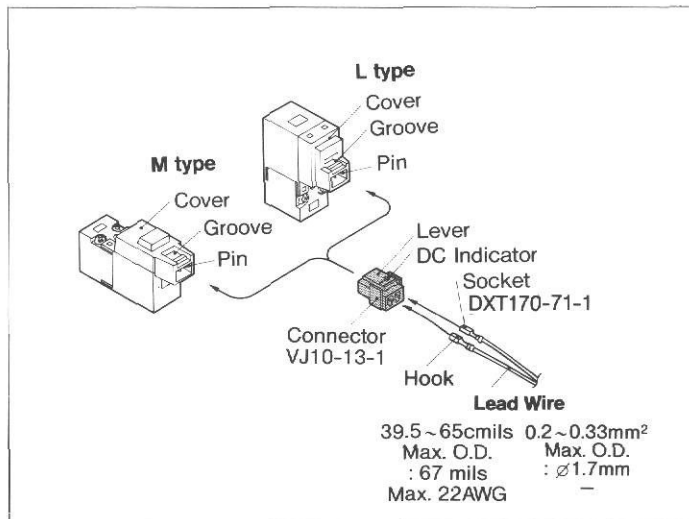
The EXH. Port of Type 46 (Type S46)

Notes For Series NVJ100•300•3000, Series NVJA300•3000

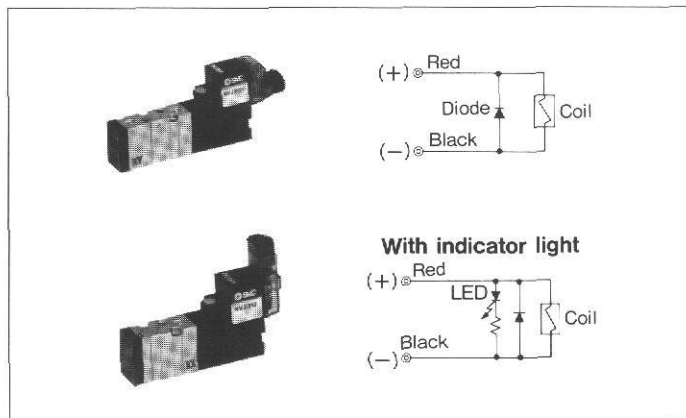
Connection/Disconnection of Plug

①Connection—Push the connector straight on to the pins of the solenoid, making sure the lip of the lever is securely positioned in the groove of the solenoid cover.

②Disconnection—Press the lever against the connector and pull the connector away from the solenoid.



Surge Voltage Protection Circuit



Correctly connect the lead wires to ⊕ (plus) and ⊖ (minus) indications on the connector.

Wrong connection may result in a burnt diode or switching element; great care is needed.

Solenoids, whose lead wires have been pre-wired, are plus side red and minus side black.

Plug Connector Type Lead Wire Length

Standard length is 12 inch, but the following lengths are also available: 24, 40, 60, 80, 100 and 120 inch.

How To Order

Connector Ass'y Number

VJ10-20-4A-6

(110VAC: VJ10-36-3A-*)

Lead wire length •

Nil	12 inch (300mm) Std.
6	24 inch (600mm)
10	40 inch (1000mm)
15	60 inch (1500mm)
20	80 inch (2000mm)
25	100 inch (2500mm)
30	120 inch (3000mm)

● When ordering both the valve and connector ass'y, include both valve and connector ass'y product numbers.
Example) 80 inch lead wire length

NVJ3120-5LO-M3
VJ10-20-4A-20

Note: 110VAC type valve must be used with connector with rectifier only.
Not voltage interchangeable

Common Exhaust for Main Valve and Pilot Valve

VJ300M, VJ3003 valves are available with a common exhaust for the pilot valve exhaust and the main valve exhaust.

Exhaust air from the pilot valve will flow to the main valve exhaust port. Exhaust air from the main valve will not enter the pilot valve side due to a check valve.

Applications:

- Elimination of air contamination which pilot exhaust would create.
- Elimination of pilot exhaust noise.
- Prevention of dust entry into valve when used in extremely dusty environments.

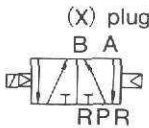
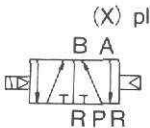
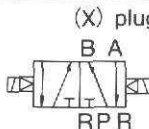
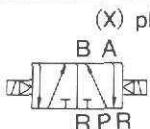
Common exhaust type valves are of great advantage when used with the common type manifolds. Please install exhaust cleaner (Series NAMC) when used in this manner. Take care of the piping so that common exhaust air does not become restricted.

Manifold Mounting of NVJ300 & NVJ3000

NVJ300 series is mountable on the manifold base of NVJ3000, NVV5J3. Refer to page ⑩.

Usage of NVJ3000 as a 3 Way Valve

The NVJ3000 may be used as a N.C. or N.O. 3 way valve by plugging one of the A, B ports.
 Be sure not to plug the exhaust ports.
 It can be used when a double solenoid, 3 way valve is required.

Plug Position		B Port	A Port
Construction		N.C.	N.O.
Actuation	Single		
	Double		

Piping

Make sure that chips, cutting oil, dust, etc. are cleaned up before piping.
 When using a NVJ3300 or NVJA3300 closed center type, make sure there's no leakage between the fitting and valve, under ports or the piping.
 Fastening torque.

Thread	Proper fastening torque	in-lbs
M3	0.78	
M3-32UNF (Nom.) M5	13.0~17.3	
NPTF	60.7~78.0	

M1.7 mounting screw pitch : 0.35mm

Quality of Operating Fluid

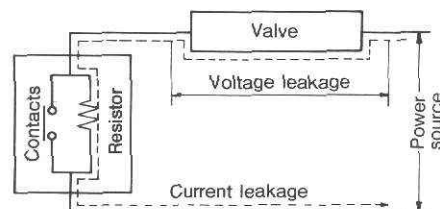
A filter of about 5μm is adequate.
 Remove drainage from the system because large quantity of drainage causes pneumatic product malfunction as well as environmental contamination.
 For added convenience, the use of an auto drain is recommended.
 When there is a large amount of carbon powder from the compressor, it causes valve malfunction.
 Please change the compressor oil or install a mist separator.

Lubrication

- ① The valve has been factory lubricated for life, and does not require lubrication in service.
- ② If a lubricant is used in the system, use turbine oil type #1 (ISO VG32). If a lubricant has been used in the system, continue to lubricate as the original lubricant applied during manufacturing may have been washed away.

Leakage Voltage

Note that when using resistor in parallel with a contact, the leakage voltage may increase due to the leakage current flowing through the resistor.



※ Leakage voltage must be no more than 3% of the rated voltage.

Operating Conditions

- ① Avoid applications where exposed to corrosive gases, chemical solutions or vapors, sea water, etc.
- ② When installing the valve in a place which is temporarily exposed to water droplets or oil, use a protective barrier or cover.

Energization Time

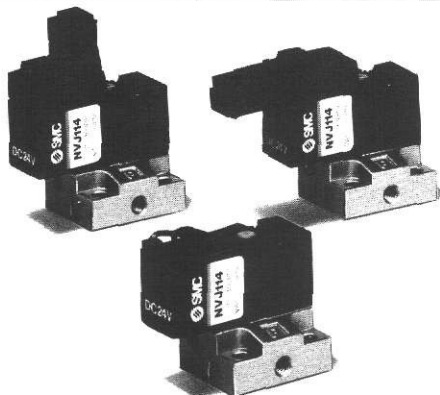
The double solenoid valve must be energized for at least 0.1 seconds to ensure proper operation.

Low Temperature Application

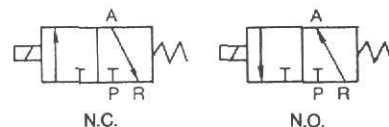
May be used down to 26°F if the air is sufficiently free of moisture.
 Please use an appropriate dryer to ensure dry air, preventing the valve from freezing.

Cv0.008

3 Port Solenoid Valve Series: NVJ100



Symbol



Model

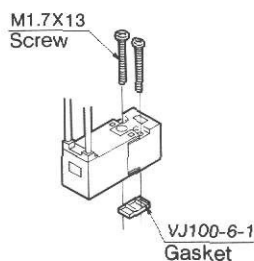
Model	Type of actuation	Operating pressure range PSI (kgf/cm ²)	Vacuum application		Cv factor	Weight lbs (gf)	
			P port	R port		Grommet type	L, M Plug connector type
NVJ114	N.C.	0 ~ 100(0 ~ 7)	10 Torr ~ 85 PSI (10 Torr ~ 6kgf/cm ²)	10 Torr ~ 0 PSI (10 Torr ~ 0kgf/cm ²)	0.008	0.048 (22) 《 Without subplate 》 0.022 (10)	0.055 (25) 《 Without subplate 》 0.029 (13)
NVJ114A		0 ~ 57(0 ~ 4)	10 Torr ~ 40 PSI (10 Torr ~ 3kgf/cm ²)	10 Torr ~ 0 PSI (10 Torr ~ 0kgf/cm ²)	0.012		
NVJ124	N.O.	0 ~ 100(0 ~ 7)	10 Torr ~ 0 PSI (10 Torr ~ 0kgf/cm ²)	10 Torr ~ 85 PSI (10 Torr ~ 6kgf/cm ²)	0.008		
NVJ124A		0 ~ 71(0 ~ 5)	10 Torr ~ 0 PSI (10 Torr ~ 0kgf/cm ²)	10 Torr ~ 57 PSI (10 Torr ~ 4kgf/cm ²)	0.012		

Note) In case of NVJ124O, supply air to "R" port, "P" port will be the exhaust port.

Solenoid Specifications

Fluid	Air and inert gases
Ambient and fluid temperature	Max. 120°F (50°C)
Response time	10ms
Max. operating frequency	20c/s
Manual override	Non-locking type, slotted locking type
Lubrication	Not required
Mounting position	Free
Impact/Vibration resistance	15G/3G (8.3~2000Hz)
Enclosure	Dust-proof

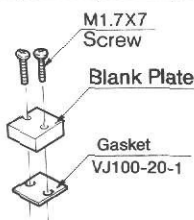
Proper Combinations of Solenoid Valve, Gasket and Base



Applicable base
• Subplate
• NVV3J1-S41 type manifold base

Blank Plate Assembly

Blank Plate Ass'y.
VJ100-19-1A



Applicable base
• Subplate
• NVV3J1-S41 type manifold base

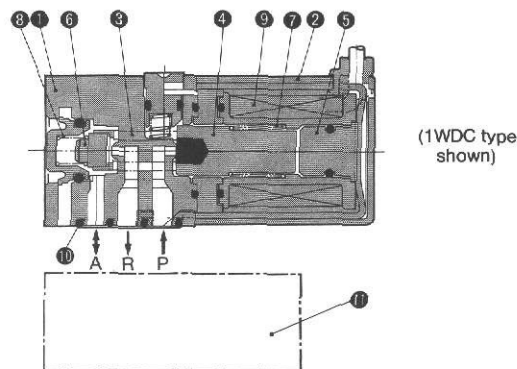
Specifications

Electrical entry	Grommet (G) (H), plug connector (L or M)
Voltage †	24VDC, 12VDC, 6VDC, 5VDC, 3VDC, 110VAC*
Allowable voltage	±10% of rated voltage
Coil insulation	Class A
Power Consumption	1W (LED: 1.2W) / 0.45W (LED: 0.5W)
Surge voltage suppressor	Diode
Indicator light	LED

* Rectified. † 24VAC available as special order.

Construction/Parts List

N.C.



Main Parts

No.	Parts name	Material	Notes	No.	Parts name	Material	Notes
1	Body	PBT resin	Black	8	Poppet spring	Stainless steel	—
2	Cover	Polyacetal	Black	9	Coil ass'y	—	—
3	Push rod	Polyacetal	—				
4	Armature ass'y	NBR, Stainless steel	—	Spare parts			
5	Core	Stainless steel	—	No.	Part name	Material	Parts No.
6	Exhaust poppet	NBR	—	10	Gasket	NBR	VJ100-6-1
7	Return spring	stainless steel	—	11	Subplate	Zinc die cast	VJ100-17-1

How To Order

• Voltage

5	24VDC
6	12VDC
V	6VDC
S	5VDC
R	3VDC
D3	110VAC*

* Rectified.
24VAC available also.

• Indicator light and surge voltage suppressor

Nil	Without indicator light and surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light and surge voltage suppressor

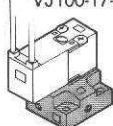
S and Z not available for grommet. 110VAC includes S option (do not specify).

• Port size

—: Without subplate **M3**: With subplate VJ100-17-1



(With gasket only)

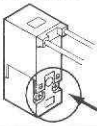


Base Mounted type (Normal open) **NVJ124**  **5** **M** **S** 

Base Mounted type (Normal closed) **NVJ114**  **5** **M** **S** 

• Manual override

—: Non-locking push type **B**: Slotted locking type




• Electrical entry

G : Grommet Lead wire length: 12 inch (300mm) 	L : L type connector with lead wire length: 12 inch (300mm) 	LO : L type plug connector without connector 
*H : Grommet Lead wire length: 24 inch (600mm) 	M : M type connector with lead wire length: 12 inch (300mm) 	MO : M type plug connector without connector 

* Special Order Only.

• When ordering the valve and connector ass'y include both the valve and connector ass'y product numbers.
Example) 80 inch lead wire length
NVJ114-5LO-M3
VJ10-20-4A-20

• Cv: 0.008
Operating pressure range
0~100 PSI
(Same for the pilot valve of NVJ300, NVJ3000)

• Cv: 0.012
Operating pressure range
0~57 PSI

• 0.45W type
(24, 12 VDC only)

† available for normal open or in conjunction with A type.

How to order

Connector ass'y number

J10-20-4A-  **†**

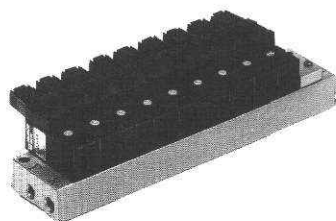
OVAC: **VJ10-36-3A-*** **†**

Lead wire length

—	12 inch (300mm) Std.
6	24 inch (600mm)
10	40 inch (1000mm)
15	60 inch (1500mm)
20	80 inch (2000mm)
25	100 inch (2500mm)
30	120 inch (3000mm)

† Not voltage interchangeable

Series: NVJ100 Manifold



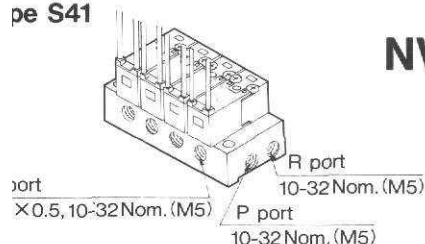
Specifications

P(SUP), R(EXH) type	Common supply, Common exhaust
Stations	2 to 20

- Please order the appropriate valves and/or blank plate ass'y with manifold base.
(Example) **NVV3J1-S41-03-M5** NVJ114-5MZ.....2 VJ100-19-1A.....1
- It is impossible to mount NVJ114○ and NVJ124○ together on the same manifold base.
- In case of NVJ124○ manifold type, supply air to "R" port of manifold base, "P" port of manifold base will be the exhaust port.

How To Order

pe S41



NVV3J1-S41-05-M3

Stations

02	2 stations
⋮	⋮
20	20 stations

A port size

*M3	M3×0.5
M5	10-32Nom.(M5×0.8)

*Special order

Applicable valves

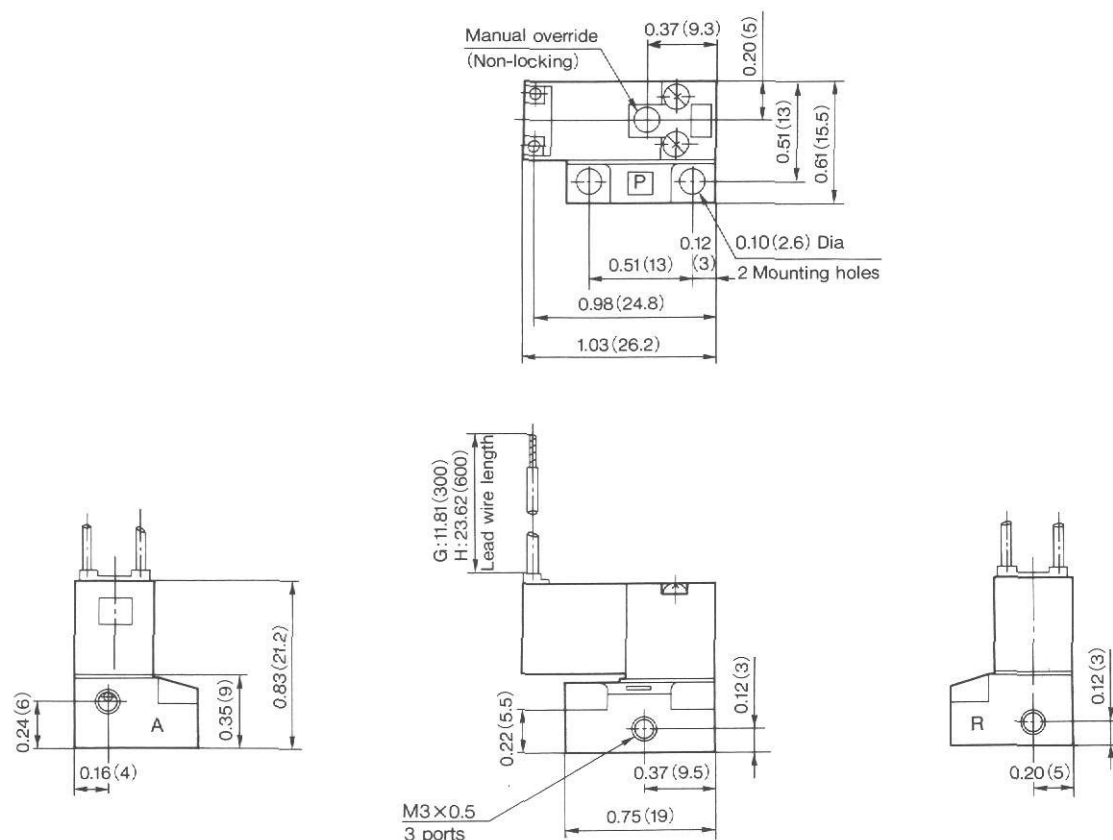
NVJ114○-○○○○
NVJ114A-○○○○
NVJ124-○○○○
NVJ124A-○○○○

Applicable blank plate ass'y
VJ100-19-1A

Dimensions

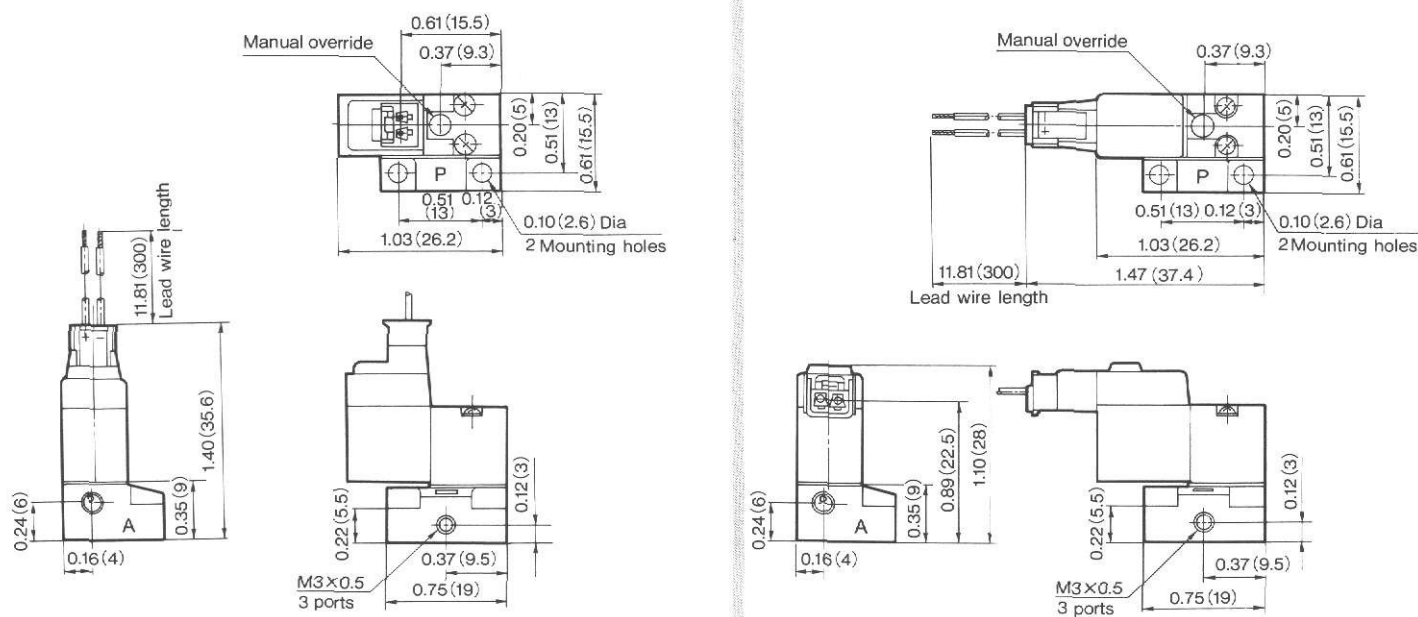
inch (mm)

Grommet : NVJ114-○-○G-○-M3 : NVJ124-○-○G-○-M3
: NVJ114-○-○H-○-M3 : NVJ124-○-○H-○-M3



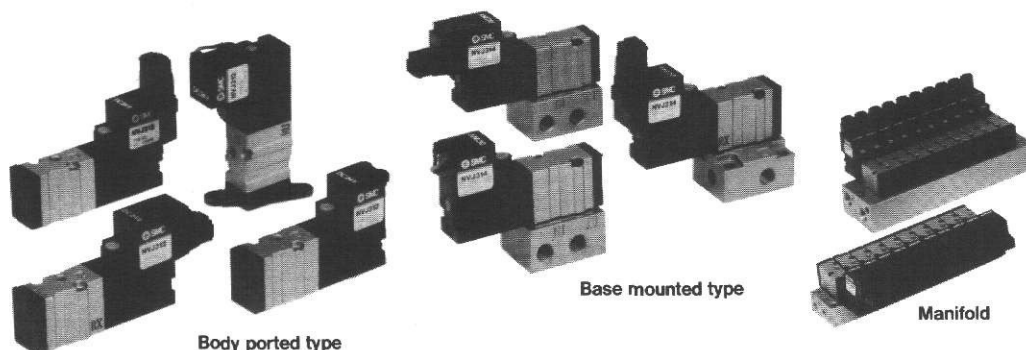
L Type Plug Connector : NVJ114-○-○L-○-M3
: NVJ114-○-○L-○-M3

M Type Plug Connector : NVJ114-○-○M-○-M3
: NVJ114-○-○M-○-M3



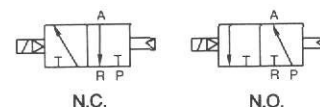
Cv 0.1

3 Port Solenoid Valve Series: NVJ300

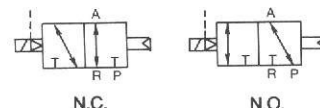


Symbol

Internal pilot type



External pilot type



Model

Body type	Model	Type of actuation	Port size	Cv factor	Weight lbs (gf)	
					Grommet type	L, M Plug connector type
Body ported type	NVJ312, 312M, 312R	N.C.	M3 × 0.5 [M3 × 0.5]	0.05 [0.05]	0.057 (26)	0.064 (29)
	NVJ322, 322M, 322R	N.O.				
Base mounted type with subplate	NVJ314, 314M, 314R	N.C.	10-32Nom. (M5) 10-32Nom. (M5) B3T	0.1 [0.08]	0.103 (47) 《Without subplate》 0.057 (26)	0.110 (50) 《Without subplate》 0.064 (29)
	NVJ324, 324M, 324R	N.O.				

Note) B3T: One touch fitting for $\frac{5}{32}$ " tube.
[]: In case of manifold.

Specifications

Fluid		Air and inert gases	
Operating pressure range	Internal pilot type	20~100 PSI (1.5~7kgf/cm ²)	
	External pilot type	Main supply pressure	10Torr~100PSI (10Torr~7kgf/cm ²)
		External pilot pressure	20~100PSI (1.5~7kgf/cm ²)
Ambient and fluid temperature		Max.120°F (50°C)	
Response time		15ms	
Max. operating frequency		10 c/s	
Manual Override		Non-locking push type, Slotted locking type	
Pilot exhaust		Individual pilot exhaust Common exhaust for main & pilot valve	
Lubrication		Not required	
Mounting position		Free	
Impact/vibration resistance		15G/3G (8.3~2000Hz)	
Enclosure		Dust proof	

Solenoid Specifications

Electrical entry	Grommet (G) (H) Plug connector (L or M)
Voltage +	24VDC, 12VDC, 6VDC, 5VDC, 3VDC, 110VAC*
Allowable Voltage	±10% of rated voltage
Coil insulation	Class A or equivalent
Power Consumption	1W (LED: 1.2W) / 0.45W (LED: 0.5W)
Surge voltage suppressor	Diode
Indicator light	LED

* Rectified. + 24VAC available as special order.

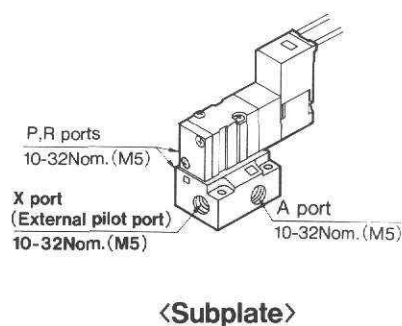
With Bracket

Valve model number	NVJ302-0000-M3-F NVJ302M-0000-M3-F
--------------------	---------------------------------------

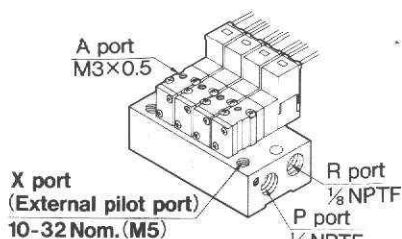
Note) Bracket factory installed only.

External Pilot Type / NVJ300R

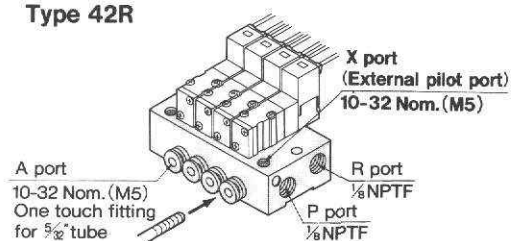
external pilot supply is required when main valve pressures are over than 20 PSI. The case of body ported external pilot type, is available in manifold mount only.



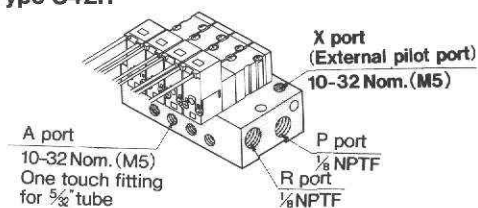
Type 20R



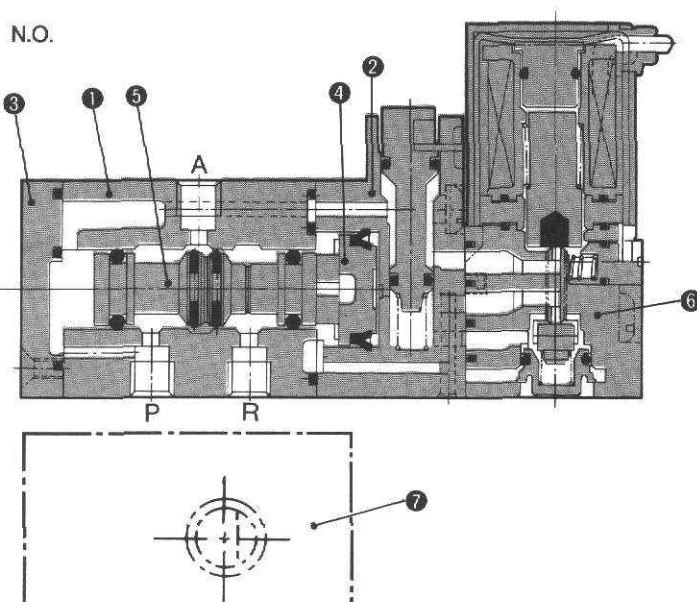
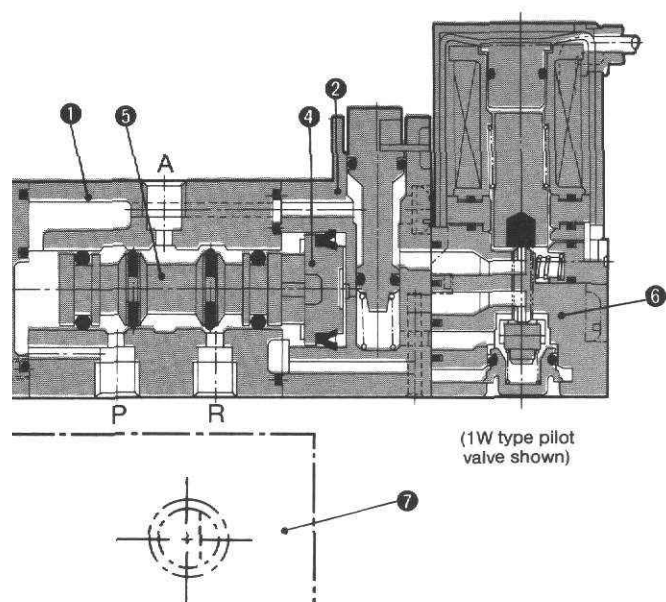
Type 42R



Type S42R



Construction/Parts List



Main Parts

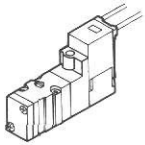
Part name	Material	Notes
Body	Zinc die cast	Platinum silver
Piston Plate	PBT resin	Black
End cover	PBT resin	Black
Piston	Polyacetal	
Spool ass'y	Aluminium + NBR	

Spare Parts

No.	Part name	Material	Part No.
⑥	Pilot valve ass'y	—	NJV114□-○○○○
⑦	Subplate	Zinc die cast	VJ300-9-1

Subplate includes gasket and mounting screws.

How to Order



For type 20,20R manifold.

• **Type of actuation**

1	Normal closed
2	Normal open

• **Voltage**

5	24VDC
6	12VDC
V	6VDC
S	5VDC
R	3VDC
D3	110VAC*

* Rectified, 24VAC available also.

• **Indicator light & surge voltage suppressor**

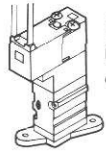
—	Without indicator light and surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light and surge voltage suppressor

S and Z not available for grommet. 110VAC type includes S (do not specify).

• **Bracket**

—: Without bracket

F: With bracket VJ3000-13-3



(Factory installed only)

Body Ported Type

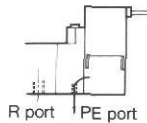
NVJ3 1 2 5 M M3

Base Mounted Type

NVJ3 1 4 5 M

• **Body option**

—: Standard type: individual pilot exhaust



M: Common exhaust for main and pilot valve



The pilot exhaust is connected to the main exhaust port via a check valve.

R: External pilot type

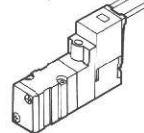


NVJ302R is only available to manifold.

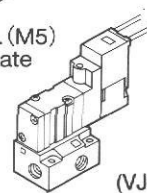
Y: 0.45W type (24, 12 VDC only)

• **Port size**

—: Without subplate



M5: 10-32 Nom. (M5) With subplate

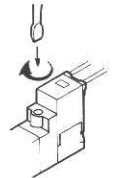
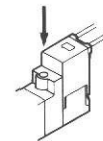


(VJ300-9-1)

• **Manual override**

—: Non-locking push type

B: Slotted locking type



• **Electrical entry**

G: Grommet
Lead wire length: 12 inch (300mm)



L: L type plug connector with lead wire length: 12 inch (300mm)



LO: L type plug connector without connector



*H: Grommet
Lead wire length: 24 inch (600mm)



M: M type plug connector with lead wire length: 12 inch (300mm)



MO: M type plug connector without connector



* Special Order Only.

How to order

Connector ass'y number

VJ10-20-4A (110VAC: VJ10-36-3A-*) †

• **Lead wire length**

—	12 inch (300mm) Std.
6	24 inch (600mm)
10	40 inch (1000mm)
15	60 inch (1500mm)
20	80 inch (2000mm)
25	100 inch (2500mm)
30	120 inch (3000mm)

† Not voltage interchangeable

• When ordering both the valve and connector ass'y include both the valve and connector assembly product numbers.
Example) 80 inch lead wire length
NVJ312-5LO-M3
VJ10-20-4A-20

Series: NVJ300 Manifold

Specifications

SUP), R (EXH) type	Common supply, common exhaust
Stations	2 to 20

Please order the appropriate valves and/or blank plate ass'y with manifold base.

(Example) NVV3J3-20-03

NVJ312-5LZ-M3.....2

VJ300-10-2A.....1

NVV3J3-42R-03-B3T

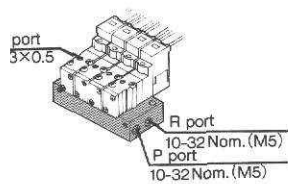
NVJ314R-5G.....2

VJ300-10-1A.....1

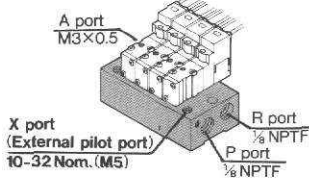
Type and How to Order

Type 20 and 20R

Type 20



Type 20R



Internal pilot type

NVV3J3-20-05

External pilot type

NVV3J3-20R-05

Stations

02	2 stations
:	:
20	20 stations

Bracket

-	w/o bracket
F	w/bracket

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

Applicable valves

Type 20

NVJ312-0000-M3

NVJ3120-0000-M3

NVJ322-0000-M3

NVJ3220-0000-M3

Type 20R

NVJ312R-0000-M3

NVJ322R-0000-M3

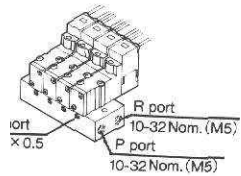
Applicable blank

plate Ass'y

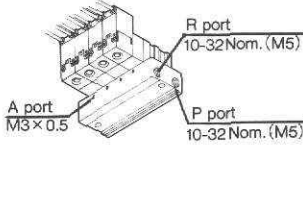
VJ300-10-2A

Type 41 and S41 (Internal pilot type)

Type 41



Type S41



NVV3J3-41-05-M3

Position of A port

-	End cover side
S	Solenoid side

Station

02	2 stations
:	:
20	20 stations

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

Applicable valves

NVJ314-0000

NVJ3140-0000

NVJ324-0000

NVJ3240-0000

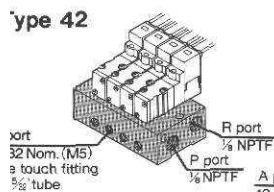
Applicable blank

plate Ass'y

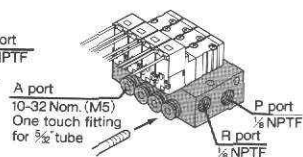
VJ300-10-1A

Type 42, 42R, S42 and S42R

Type 42



Type S42



NVV3J3-42-05-M5

Position of A port

-	End cover side
S	Solenoid side

Station

02	2 stations
:	:
20	20 stations

A port size

M5	10-32 Nom. (M5)
B3T	One touch fitting for 3/8 tube

Note) If there are more than 8 stations, supply air from both sides of manifold and exhaust from both sides of manifold.

Applicable valves

Type 42 & S42

NVJ314-0000

NVJ3140-0000

NVJ324-0000

NVJ3240-0000

Typ 42R & S42R

NVJ314R-0000

NVJ324R-0000

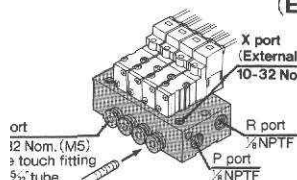
Applicable blank

plate Ass'y

VJ300-10-1A

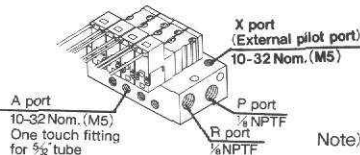
Type 42R

External pilot type)



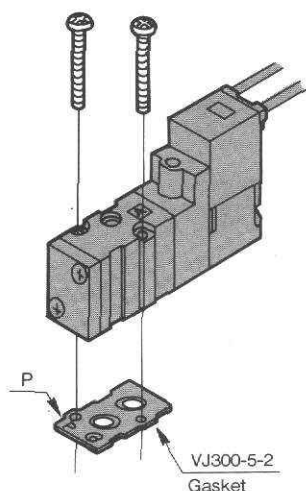
Type S42R

(External pilot type)



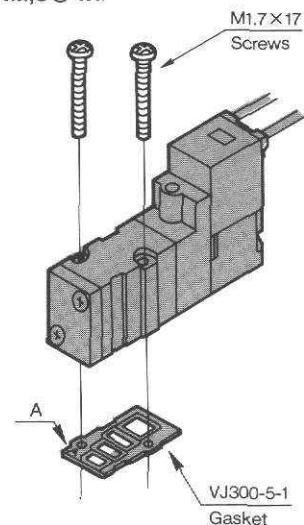
Proper Combinations of Solenoid Valve, Gaskets and Manifold/Subplate Base

Body Ported Type
(NVJ 302
NVJ 302M, 302R)



Applicable base
NVV3J3-20
NVV3J3-20R

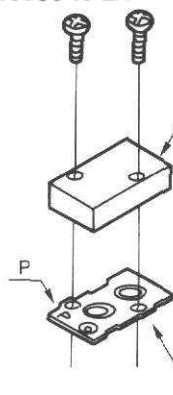
Base Mounted Type
(NVJ 304
NVJ 304M, 304R)



Applicable base
Subplate (VJ300-9-1)
NVV3J3-41
NVV3J3-S41
NVV3J3-42
NVV3J3-S42
NVV3J3-42R
NVV3J3-S42R

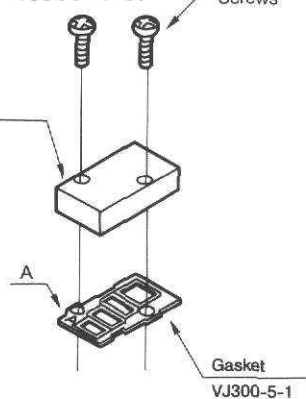
Proper Combination of Blank Plate Ass'y & Manifold Base

Blank Plate Ass'y
VJ300-10-2A



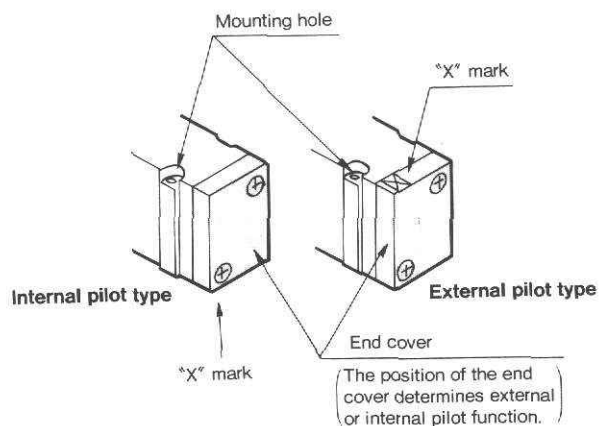
Applicable base
NVV3J3-20
NVV3J3-20R

Blank Plate Ass'y
VJ300-10-1A



Applicable base
Subplate (VJ300-9-1)
NVV3J3-41
NVV3J3-S41
NVV3J3-42
NVV3J3-S42
NVV3J3-42R
NVV3J3-S42R

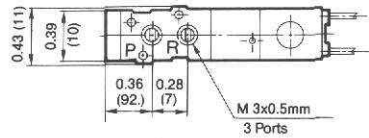
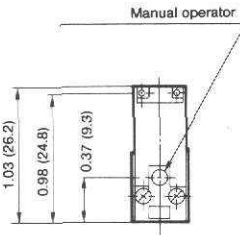
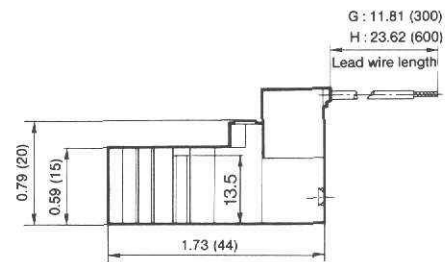
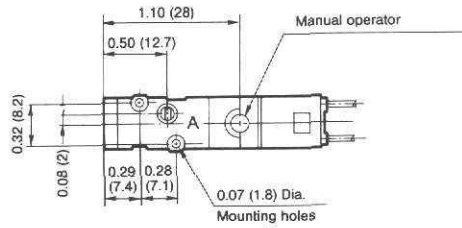
Difference Between Internal Pilot Type and External Pilot Type



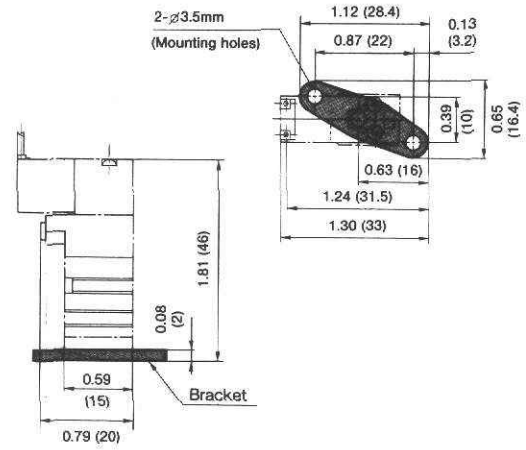
Body Ported Type

inch(mm)

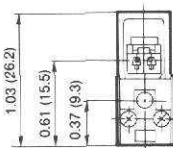
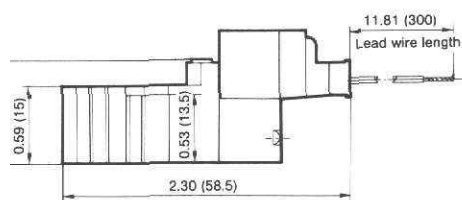
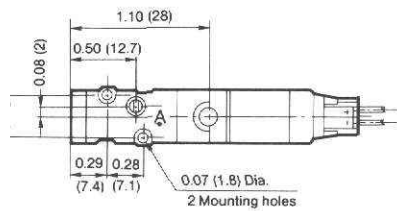
mmet : NVJ3020-0G0-M3
NVJ3020-0H0-M3



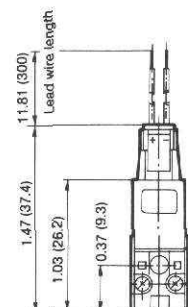
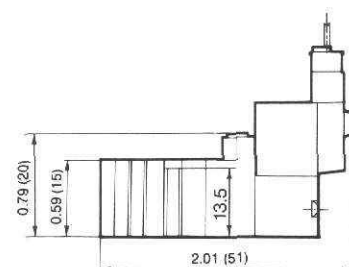
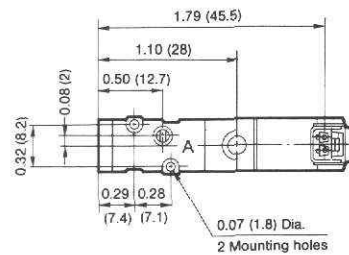
With Foot Bracket (F)
Note: Factory installed only.



Type Plug Connector : NVJ3020-0L00-M3



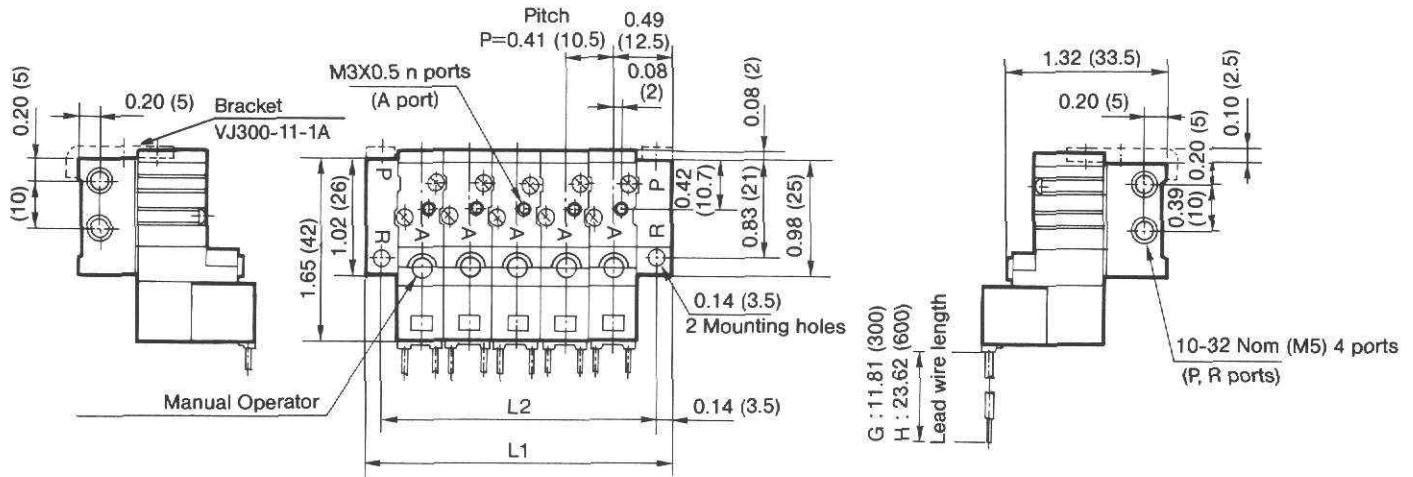
M Type Plug Connector : NVJ3020-0M00-M3



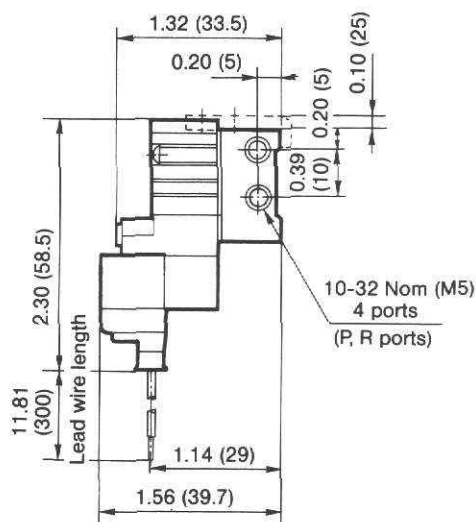
ipe 20 Manifold : Top Ported / NVV3J3-20- Stations

inch (mm)

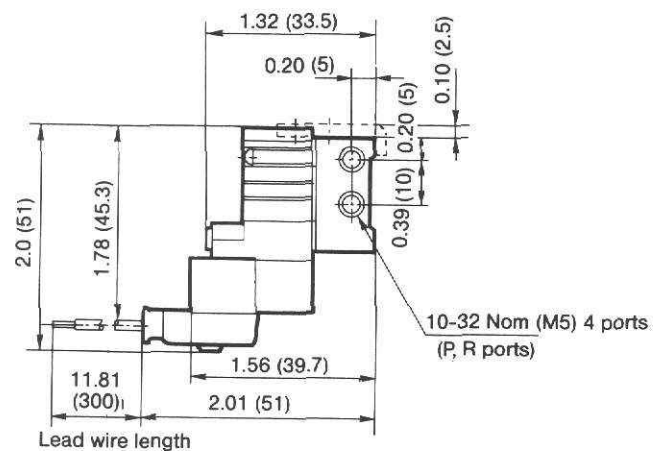
mmet (G) 、 (H)



Type Plug Connector (L)



M Type Plug Connector (M)

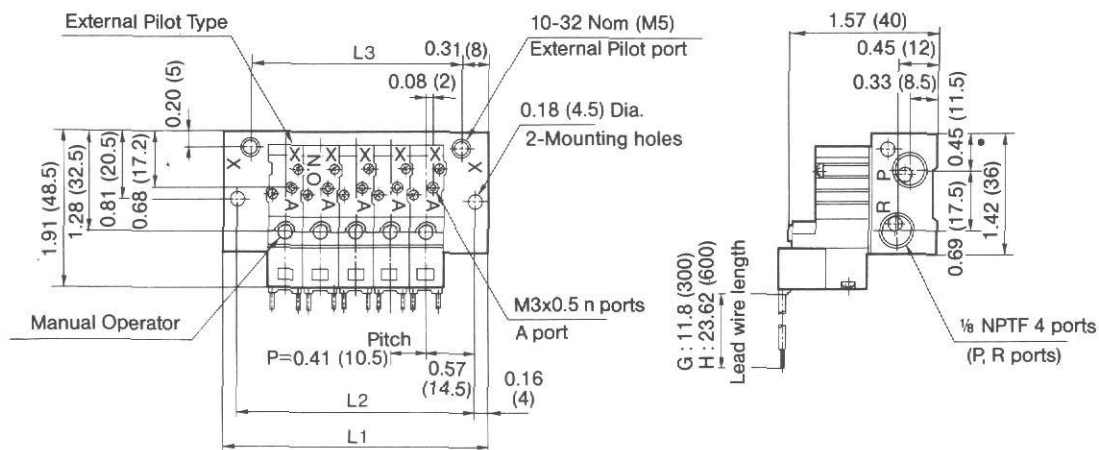


Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1.40 (35.5)	1.81 (46)	2.22 (56.5)	2.64 (67)	3.05 (77.5)	3.46 (88)	3.88 (98.5)	4.29 (109)	4.70 (119.5)	5.12 (130)	5.53 (140.5)	5.94 (151)	6.36 (161.5)	6.77 (172)	7.19 (182.5)	7.60 (193)	8.01 (203.5)	8.43 (214)	8.84 (224.5)
	1.12 (28.5)	1.54 (39)	1.95 (49.5)	2.36 (60)	2.78 (70.5)	3.19 (81)	3.60 (91.5)	4.02 (102)	4.43 (112.5)	4.84 (123)	5.26 (133.5)	5.67 (144)	6.08 (154.5)	6.50 (165)	6.91 (175.5)	7.32 (186)	7.74 (196.5)	8.15 (207)	8.56 (217.5)

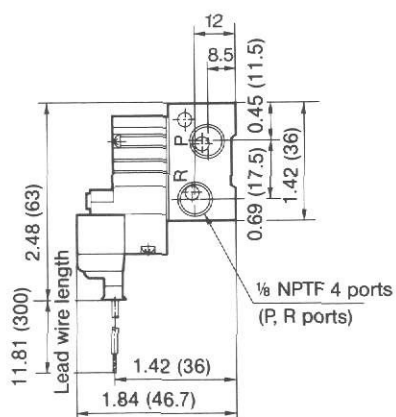
Type 20R Manifold : Top Ported (External Pilot)/NVV3J3-20R-Stations

inch (mm)

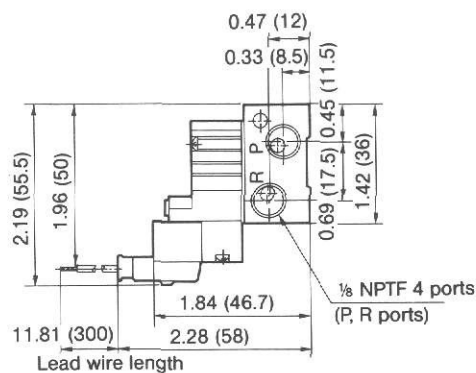
Grommet (G) 、 (H)



L Type Plug Connector (L)



M Type Plug Connector (M)

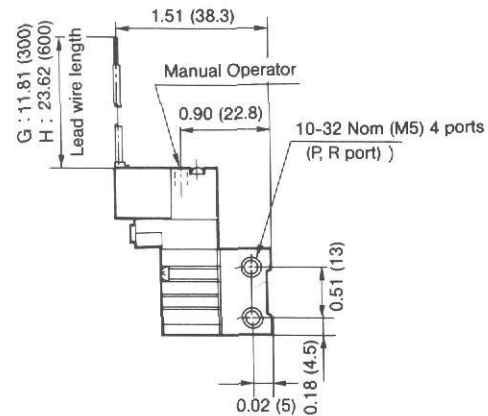
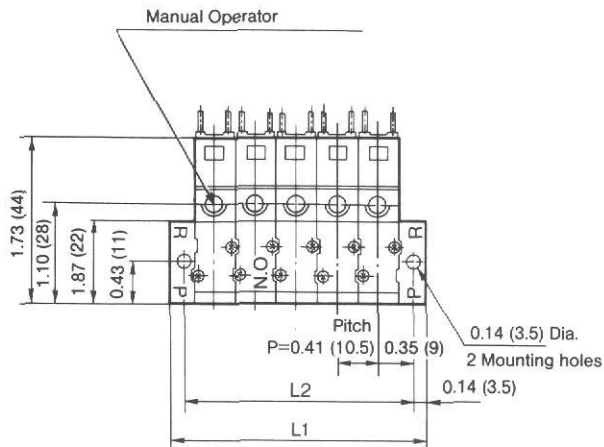


Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.87 (47.5)	2.28 (58)	2.70 (68.5)	3.11 (79)	3.52 (89.5)	3.94 (100)	4.35 (110.5)	4.76 (121)	5.18 (131.5)	5.59 (142)	6.00 (152.5)	6.42 (163)	6.83 (173.5)	7.24 (184)	7.66 (194.5)	8.07 (205)	8.48 (215.5)	8.90 (226)	9.31 (236.5)
L2	1.56 (39.5)	1.97 (50)	2.38 (60.5)	2.80 (71)	3.21 (81.5)	3.62 (92)	4.04 (102.5)	4.45 (113)	4.86 (123.5)	5.28 (134)	5.69 (144.5)	6.10 (155)	6.52 (165.5)	6.93 (176)	7.34 (186.5)	7.76 (197)	8.17 (207.5)	8.58 (218)	9.00 (228.5)
L3	1.24 (31.5)	1.65 (42)	2.07 (52.5)	2.48 (63)	2.89 (73.5)	3.31 (84)	3.72 (94.5)	4.13 (105)	4.55 (115.5)	4.96 (126)	5.37 (136.5)	5.79 (147)	6.20 (157.5)	6.61 (168)	7.03 (178.5)	7.44 (189)	7.85 (199.5)	8.27 (210)	8.68 (220.5)

Type 41 Manifold : Side Ported / NVV3J3-41 - Stations - M3

inch(mm)

Grommet (G), (H)

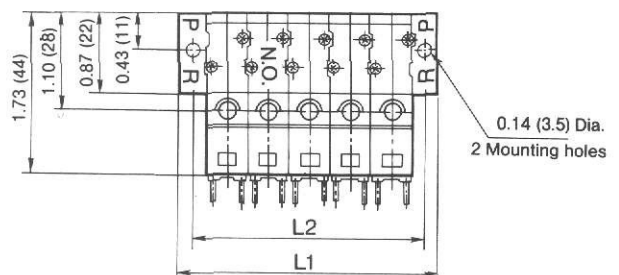
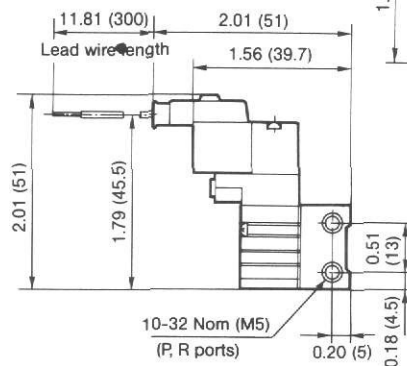
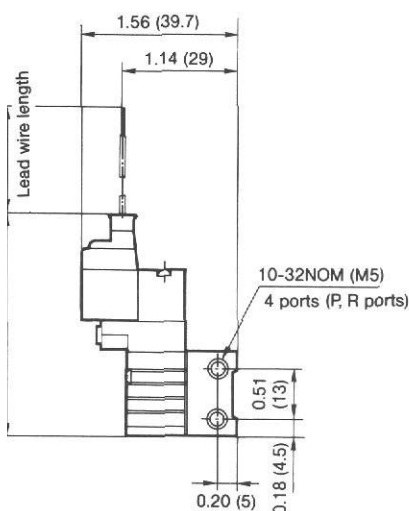


Type S41 / Side Ported

NVV3J3-S41 - Stations - M3

L Type Plug Connector (L)

M Type Plug Connector (M)



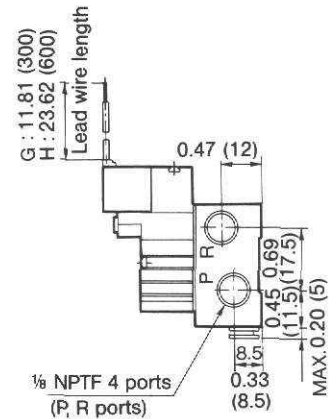
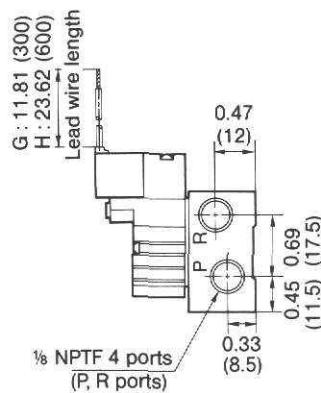
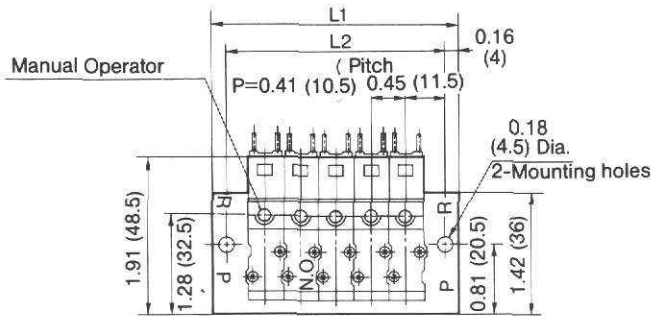
Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.40 (35.5)	1.81 (46)	2.22 (56.5)	2.64 (67)	3.05 (77.5)	3.46 (88)	3.88 (98.5)	4.29 (109)	4.70 (119.5)	5.12 (130)	5.53 (140.5)	5.94 (151)	6.36 (161.5)	6.77 (172)	7.19 (182.5)	7.60 (193)	8.01 (203.5)	8.43 (214)	8.84 (224.5)
L2	1.12 (28.5)	1.54 (39)	1.95 (49.5)	2.36 (60)	2.78 (70.5)	3.19 (81)	3.60 (91.5)	4.02 (102)	4.43 (112.5)	4.84 (123)	5.26 (133.5)	5.67 (144)	6.08 (154.5)	6.50 (165)	6.91 (175.5)	7.32 (186)	7.74 (196.5)	8.15 (207)	8.56 (217.5)

Type 42 Manifold : Side Ported / NVV3J3-42-Stations-M5, B3T

inch (mm)

Grommet (G), (H)

<In Case Of B3T>

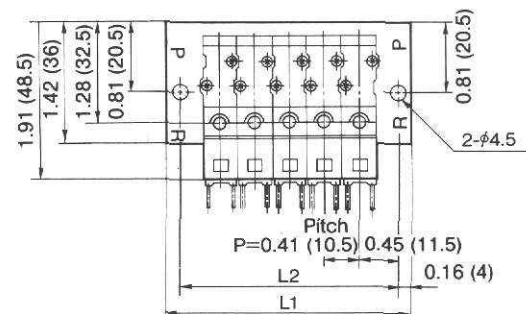
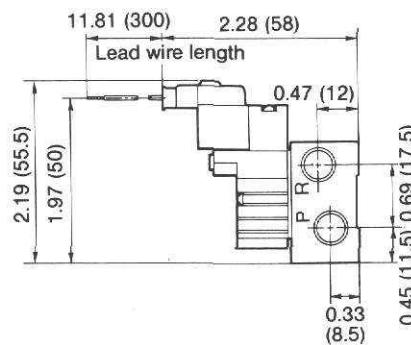
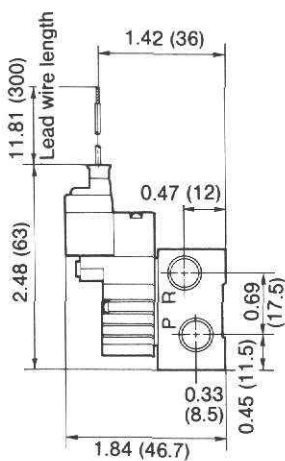


L Type Plug Connector (L)

M Type Plug Connector (M)

Type S42 / Side Ported

NVV3J3-S42-Stations-M5, B3T



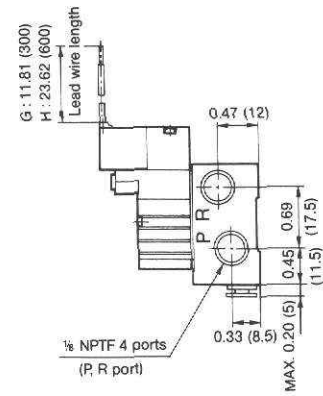
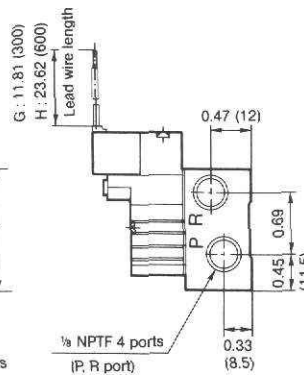
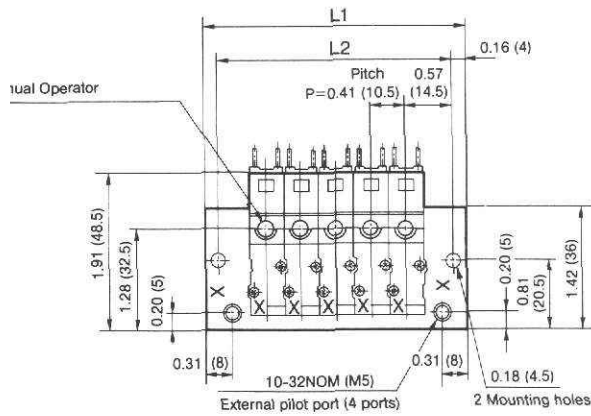
Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.63 (41.5)	2.05 (52)	2.46 (62.5)	2.87 (73)	3.29 (83.5)	3.70 (94)	4.11 (104.5)	4.53 (115)	4.94 (125.5)	5.35 (136)	5.77 (146.5)	6.18 (157)	6.59 (167.5)	7.01 (178)	7.42 (188.5)	7.83 (199)	8.25 (209.5)	8.66 (220)	9.07 (230.5)
L2	1.32 (33.5)	1.73 (44)	2.15 (54.5)	2.56 (65)	2.97 (75.5)	3.39 (86)	3.80 (96.5)	4.21 (107)	4.63 (117.5)	5.04 (128)	5.45 (138.5)	5.87 (149)	6.28 (159.5)	6.69 (170)	7.11 (180.5)	7.52 (191)	7.93 (201.5)	8.35 (212)	8.76 (222.5)

Type 42R Manifold : Side Ported / NVV3J3-42R-Stations -M5, B3T

inch (mm)

mmet (G), (H)

<In Case Of B3T>

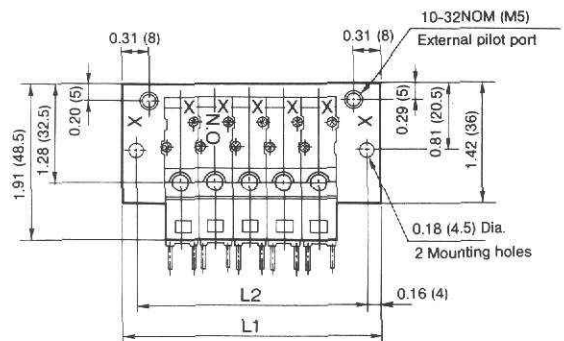
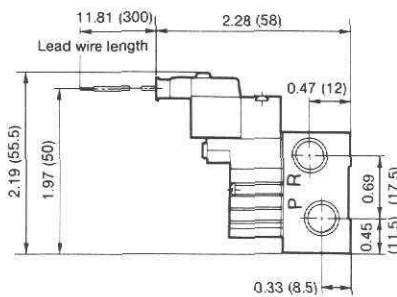
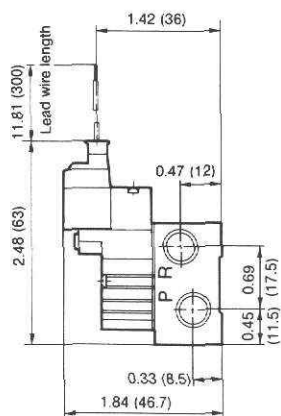


Type S42R / Side Ported

NVV3J3-S42R-Stations -M5, B3T

Type Plug Connector (L)

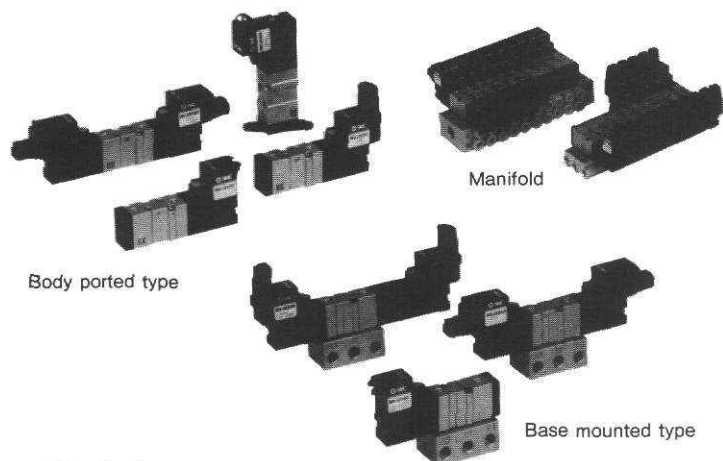
M Type Plug Connector (M)



Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1.87 (47.5)	2.28 (58)	2.70 (68.5)	3.11 (79)	3.52 (89.5)	3.94 (100)	4.35 (110.5)	4.76 (121)	5.18 (131.5)	5.59 (142)	6.00 (152.5)	6.42 (163)	6.83 (173.5)	7.24 (184)	7.66 (194.5)	8.07 (205)	8.48 (215.5)	8.90 (226)	9.31 (236.5)
	1.56 (39.5)	1.97 (50)	2.38 (60.5)	2.80 (71)	3.21 (81.5)	3.65 (92)	4.04 (102.5)	4.45 (113)	4.86 (123.5)	5.28 (134)	5.69 (144.5)	6.10 (155)	6.52 (166.5)	6.93 (176)	7.34 (186.5)	7.76 (197)	8.17 (207.5)	8.58 (218)	9.00 (228.5)

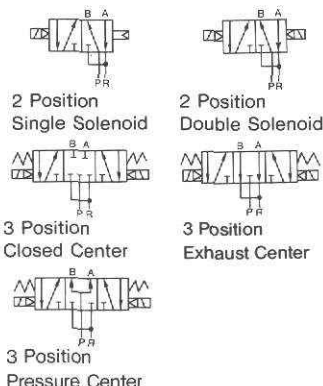
Cv 0.1

5 Port Solenoid Valve Series: NVJ3000

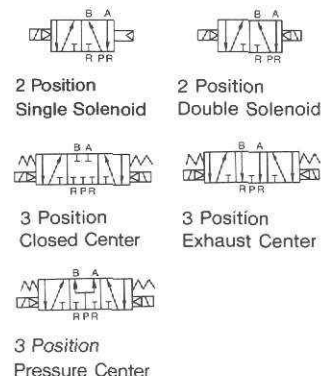


Symbol

4 Port (Manifold only)



5 Port



Model

Body type	Model	Type of actuation	Port size	Cv factor	Weight lbs (gf)	
					Grommet type	L, M Plug connector type
Body ported type	NVJ312	2 position single solenoid	M3×0.5 [M3×0.5]	0.05 [0.05]	0.066 (30)	0.073 (33)
	NVJ322	2 position double solenoid			0.090 (41)	0.103 (47)
	NVJ332	3 position closed center			0.097 (44)	0.110 (50)
	NVJ342	3 position exhaust center				
	NVJ352	3 position pressure center				
4 port Base mounted type (manifold only)	NVJ313	2 position single solenoid	M3×0.5	0.05 [0.067]	0.066 (30)	0.073 (33)
	NVJ323	2 position double solenoid	10-32 Nom. (M5)		0.090 (41)	0.103 (47)
	NVJ333	3 position closed center	One touch fitting for 5/8" tube		0.097 (44)	0.110 (50)
	NVJ343	3 position exhaust center				
	NVJ353	3 position pressure center				
5 port Base mounted type	NVJ314	2 position single solenoid	10-32 Nom. (M5)	0.1 [(S) 41:0.08] [(S) 46:0.055]	0.123 (59) <0.066 (30)>	0.130 (59) <0.073 (33)>
	NVJ324	2 position double solenoid	10-32 Nom. (M5)		0.147 (67) <0.090 (41)>	0.161 (73) <0.103 (47)>
	NVJ334	3 position closed center	One touch fitting for 5/8" tube		0.154 (70) <0.097 (44)>	0.167 (76) <0.110 (50)>
	NVJ344	3 position exhaust center				
	NVJ354	3 position pressure center				

[] : In case of manifold. < > : Without subplate

Specifications

Fluid		Air and inert gas
Operating pressure range	2 position single solenoid	20~100 PSI (1.5~7kgf/cm ²)
	2 position double solenoid	14~100 PSI (1~7kgf/cm ²)
	3 position	28~100 PSI (2~7kgf/cm ²)
Ambient & fluid temperature		Max 120°F (50°C)
Response time	2 position	15ms
	3 position	30ms
Max operating frequency	2 position	10c/s
	3 position	3c/s
Manual Override		Non-locking push type, Slotted locking type
Pilot exhaust		Individual pilot exhaust Common exhaust for main & pilot valve
Lubrication		Not required
Mounting position		Free
Impact/vibration resistance		15G/3G (8.3~2000Hz)
Enclosure		Dust proof

Solenoid Specifications

Electrical entry	Grommet (G) (H), Plug connector (L or M)
Voltage †	24VDC, 12VDC, 6VDC, 5VDC, 3VDC, 110VAC*
Allowable voltage	±10% rated voltage
Coil insulation	Class A or equivalent
Power Consumption	1W (LED: 1.2W) / 0.45W (LED: 0.5W)
Surge voltage suppressor	Diode
Indicator light	LED

* Rectified. † 24VAC available as special order.

With Bracket

Applicable type	Valve model number
For single solenoid type	NVJ312○-○○○○-M3-F (Factory installed only)
For double solenoid type	NVJ322○-○○○○-M3-F
	NVJ332○-○○○○-M3-F
	NVJ342○-○○○○-M3-F

(note) Bracket part number (For double solenoid type): VJ3000-13-1
If a double solenoid type bracket is desired for single solenoid valve, order the double solenoid valve type bracket and single solenoid valve without a bracket.
Example) NVJ3120-5M-M3 VJ3000-13-1

Manifold Mounting of NVJ300 and NVJ3000 Series

NVJ300 Series is mountable on the manifold base of the NVJ3000, NVV5J3.

In case of type NVV5J3-20

Insert the plug (VJ3000-33-1) into the R port, which is not used for a 3 way valve.

Applicable Valve : NVJ312, NVJ312M

NVJ322, NVJ322M

For type NVV5J3-31,S31, NVV5J3-32,S32, and

NVJ314, NVJ314M

Mount NVJ300 in the usual fashion.

Outlet port of a 3 way valve will be B port of the manifold base

Applicable Valve : NVJ314, NVJ314M

NVJ324, NVJ324M

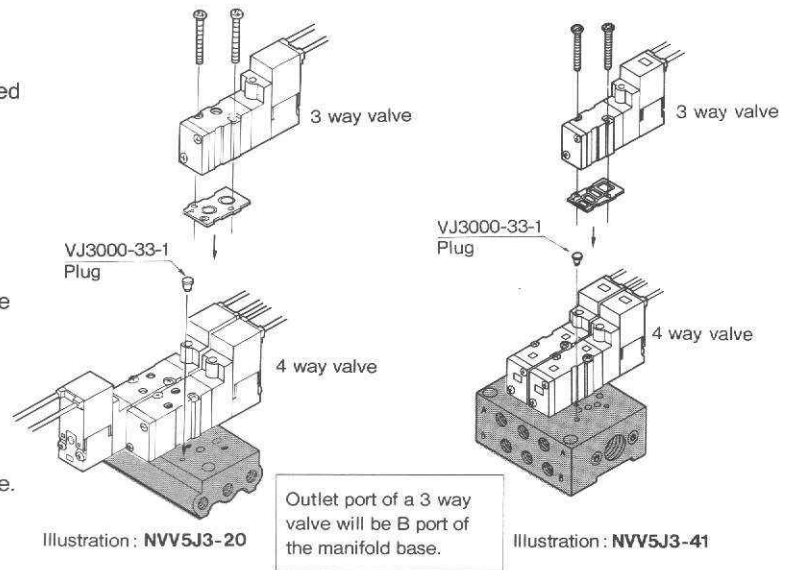
For type NVV5J3-41,S41

Insert the plug (VJ3000-33-1) into the R port, which is not used for a 3 way valve.

Outlet port of a 3 way valve will be B port of the manifold base.

Applicable Valve : NVJ314, NVJ314M

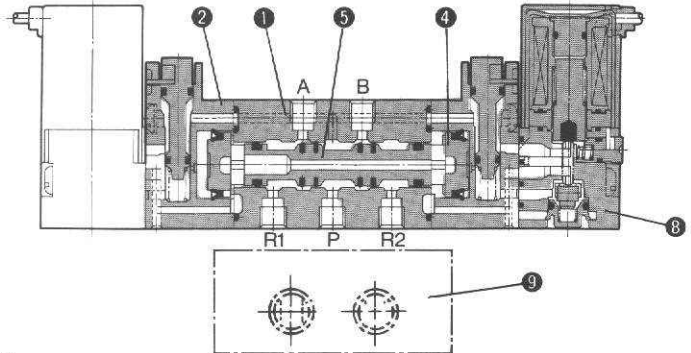
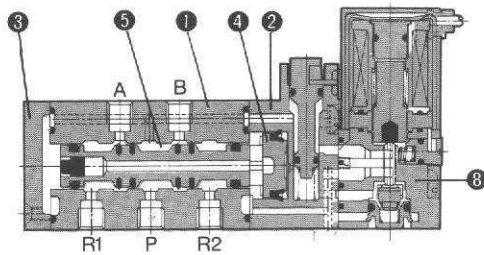
NVJ324, NVJ324M



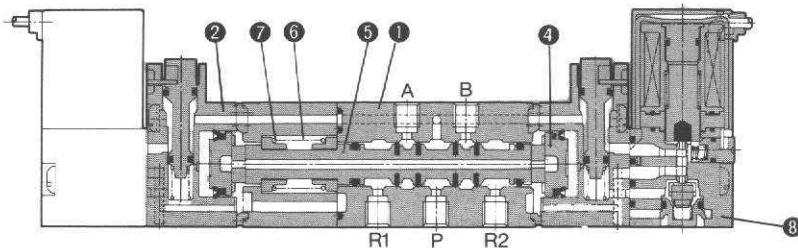
Construction/Parts List

Position Single Solenoid

2 Position Double Solenoid



Position Closed Center/Exhaust Center/Pressure Center



(1W type pilot valve shown)

Main Parts

No.	Part name	Material	Notes
1	Body	Zinc die cast	Platinum silver
2	Piston plate	PBT resin	Black
3	End cover	PBT resin	Black
4	Piston	Polyacetal	—
5	Spool ass'y	—	—
6	Return spring	Stainless steel	—
7	Spring washer	Nylon	—

Spare Parts

No.	Part name	Material	Parts No.
8	Pilot Valve ass'y	—	NVJ114-○○○○
9	Subplate	Zinc die cast	VJ3000-22-1

How to Order

For type
20 manifold.

•Voltage

5	24VDC
6	12VDC
V	6VDC
S	5VDC
R	3VDC
D3	110VAC*

* Rectified.
24VAC available
also.

•Type of actuation

1	2 position, single solenoid
2	2 position, double solenoid
3	3 position, closed center
4	3 position, exhaust center
5	3 position, pressure center

•Indicator light and surge voltage suppressor

—	Without indicator light and surge voltage suppressor
S	With surge voltage suppressor
Z	With indicator light & surge voltage suppressor

S and Z not available for grommet. 110VAC type includes S (do not specify).

•Bracket

—: Without bracket

F: With bracket
VJ3000-13-3

In case of single solenoid.
(factory installed only)

In case of double solenoid.
(VJ3000-13-1)

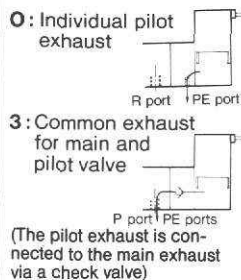
If a double solenoid type bracket is desired for single solenoid valve, please order the double solenoid valve type bracket and a single solenoid valve W/O a bracket.
(Ex) NVJ3120-5M-M3
VJ3000-13-1

Body Port Type NVJ3 1 2 0 — 5 M — — M3 —

Base Mounted Type (4 Port) NVJ3 1 3 0 — 5 M — — (Manifold only)

Base Mounted Type (5 Port) NVJ3 1 4 0 — 5 M — — —

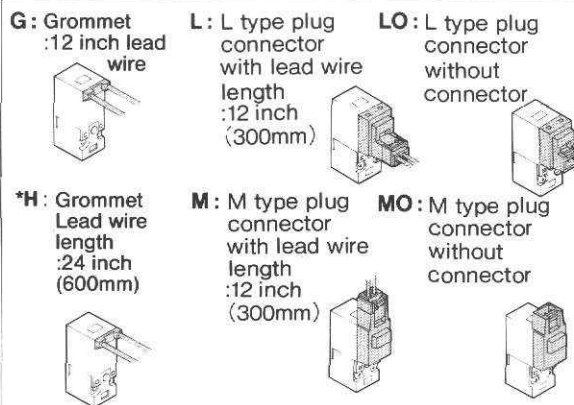
•Body option



•Power consumption

Nil: Standard
1WDC (1.2 w/LED)
Y: 0.45W type
(24, 12 VDC only)

•Electrical entry



* Special Order Only.

•Manual

—: Non-locking push type

B: Slotted locking type

•Port size

—: Without subplate

M5: With 10-32 Nom. (M5) subplate
(VJ3000-22-1)

How to order

Connector ass'y number

VJ10-20-4A- (110VAC: VJ10-36-3A-*)

Lead wire length

—	12 inch (300mm)
6	24 inch (600mm)
10	40 inch (1000mm)
15	60 inch (1500mm)
20	80 inch (2000mm)
25	100 inch (2500mm)
30	120 inch (3000mm)

•When ordering both the valve and connector ass'y include both the valve and connector ass'y product numbers.
Example) 80 inch lead wire length

NVJ3120-5LO-M3
VJ10-20-4A-20

Series: NVJ3000 Manifold

Specifications

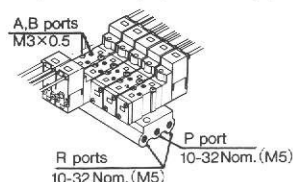
Valve stations	2 to 20
----------------	---------

Type and How to Order

Common Supply, Common Exhaust Type

Note: If there are more than 10 stations supply air from both sides of manifold and exhaust from both sides of manifold.

Type 20 (for 5 port body ported type)



NVV5J3-20-05

Stations	
02	2 stations
:	:
20	20 stations

Applicable valves

NVJ30200-0000-M3
NVJ30230-0000-M3

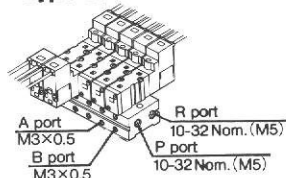
Applicable blank plate ass'y

VJ3000-21-2A

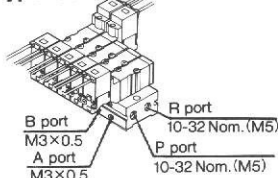
Type 31 & S31 (for 4 port base mounted type)

NVV5J3-31-05-M3

Type 31



Type S31



Position of A,B port	
—	End cover side of single solenoid type
S	Solenoid side of single solenoid type

Stations	
02	2 stations
:	:
20	20 stations

Applicable valves

NVJ30300-0000
NVJ30330-0000

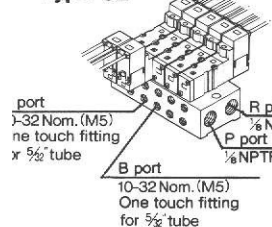
Applicable blank plate ass'y

VJ3000-21-1A

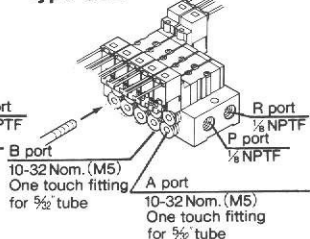
Type 32 & S32 (for 4 port base mounted type)

NVV5J3-32-05-M5

Type 32



Type S32



Position of A,B port	
—	End cover side of single solenoid type
S	Solenoid side of single solenoid type

Stations	
02	2 stations
:	:
20	20 stations

A,B port size

M5	10-32 Nom. (M5)
B3T	One touch fitting for 1/2" tube

Applicable valves

NVJ30300-0000
NVJ30330-0000

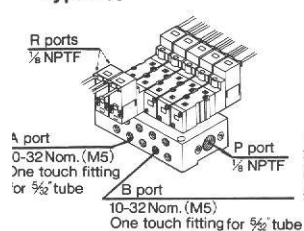
Applicable blank plate ass'y

VJ3000-21-1A

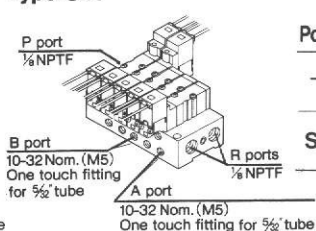
Type 41 & S41 (for 5 port base mounted type)

NVV5J3-41-05-B3T

Type 41



Type S41



Position of A,B port	
—	End cover side of single solenoid type
S	Solenoid side of single solenoid type

Stations	
02	2 stations
:	:
20	20 stations

A,B port size

M5	10-32 Nom. (M5)
B3T	One touch fitting for 1/2" tube

Applicable valves

NVJ30400-0000
NVJ30430-0000

Applicable blank plate ass'y

VJ3000-21-1A

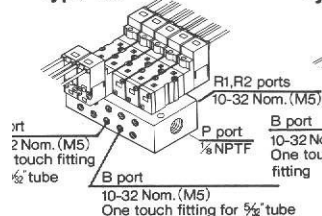
Common Supply, Individual Exhaust Type

Note: If there are more than 10 stations, supply air from both sides of manifold and exhaust from both sides of manifold.

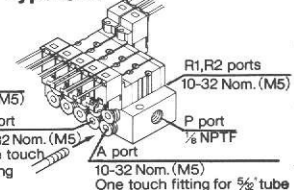
Type 46 & S46 (for 5 port base mounted type)

NVV5J3-46-05-B3T

Type 46



Type S46



Position of A,B port	
—	End cover side of single solenoid type
S	Solenoid side of single solenoid type

Stations	
02	2 stations
:	:
20	20 stations

A,B port size

M5	10-32 Nom. (M5)
B3T	One touch fitting for 1/2" tube

Applicable valves

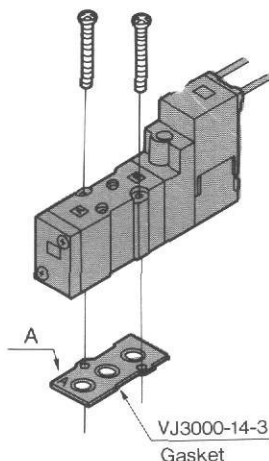
NVJ30400-0000
NVJ30430-0000

Applicable blank plate ass'y

VJ3000-21-1A

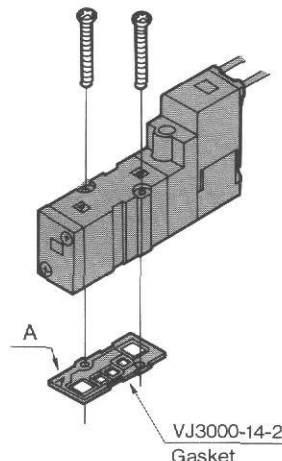
Proper Combinations of Solenoid Valves, Gaskets & Manifold Base

**5 Port Body Ported Type
(NVJ3020)**



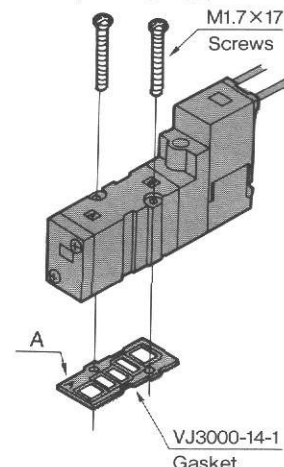
Applicable base
NVV5J3-20

**4 Port Base Mounted Type
(NVJ3030)**



Applicable base
NVV5J3-31
NVV5J3-S31
NVV5J3-32
NVV5J3-S32

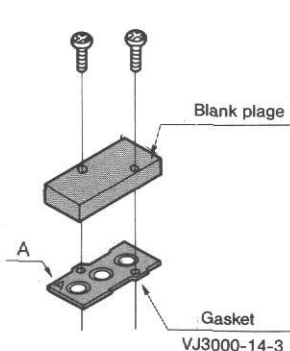
**5 Port Base Mounted Type
(NVJ3040)**



Applicable base
Subplate (VJ3000-22-1)
NVV5J3-41
NVV5J3-S41
NVV5J3-46
NVV5J3-S46

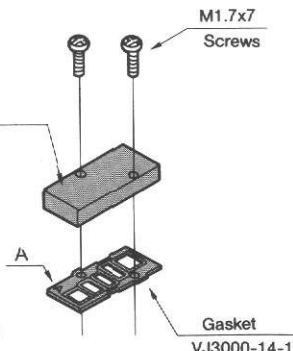
Proper Combination of Blank Plate Ass'y & Manifold Base

**Blank Plate Ass'y
VJ3000-21-2A**



Applicable base
NVV5J3-20

**Blank Plate Ass'y
VJ3000-21-1A**



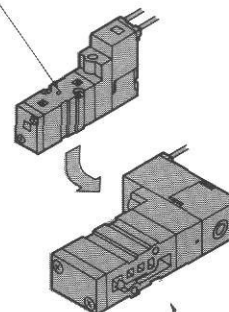
Applicable base
Subplate (VJ3000-22-1)
NVV5J3-41
NVV5J3-S41
NVV5J3-46
NVV5J3-S46
NVV5J3-31
NVV5J3-S31
NVV5J3-32
NVV5J3-S32

Note: Manifold gasket VJ3000-14-2 can be used with the following manifold bases.
NVV5J3-31
NVV5J3-S31
NVV5J3-32
NVV5J3-S32

Difference Between NVJ3030 and NVJ3040

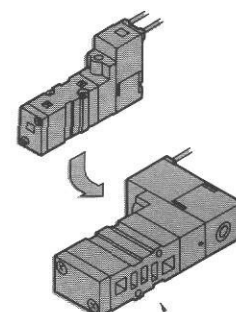
**NVJ3030
(4 Port)**

A steel ball is struck into the body.



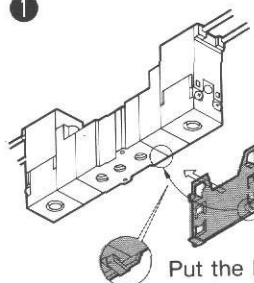
**NVJ3040
(5 Port)**

This face configuration is different.



How to Mount Bracket (VJ3000-13-1)

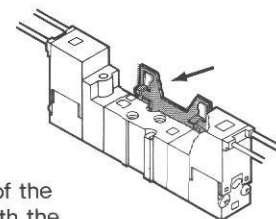
1



Put the lower part of the bracket together with the valve body, and then fit the hooks in the groove.

2

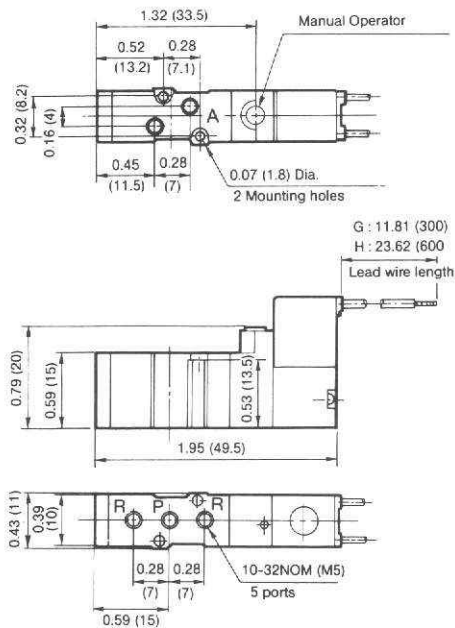
Put the hooks of the bracket in the groove of the body by pushing this part.



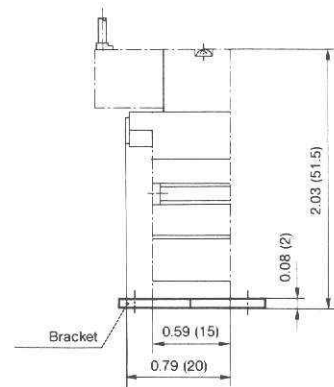
Body Ported Type : Single Solenoid

inch (mm)

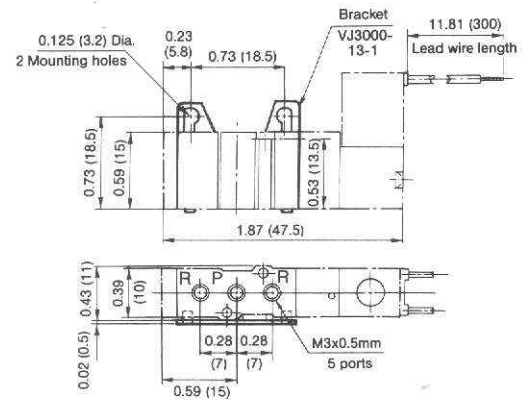
Formet (G) : NVJ3120○-○G○-M3
NVJ3120○-○H○-M3



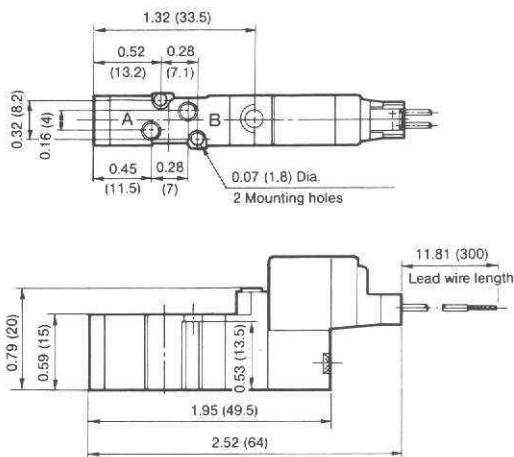
With Foot Bracket (F) (NVJ3120○)
(for foot type bracket order with "F" suffix)
Note: Factory installed only.



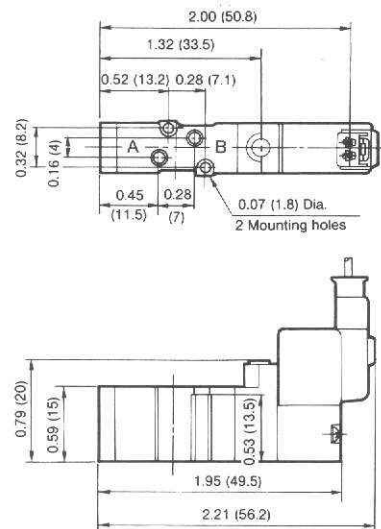
Body Bracket (F) NVJ3(2,3,4,5)2○
VJ3000-13-1



Type Plug Connector : NVJ3120○-○L○-M3



M Type Plug Connector : NVJ3120○-○M○-M3

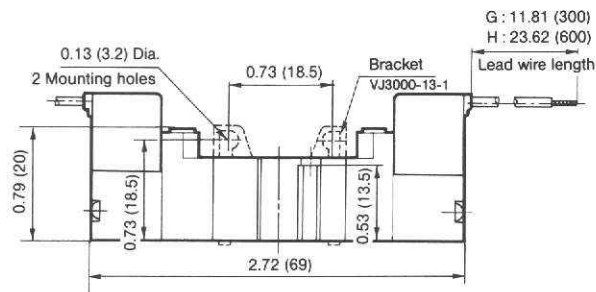
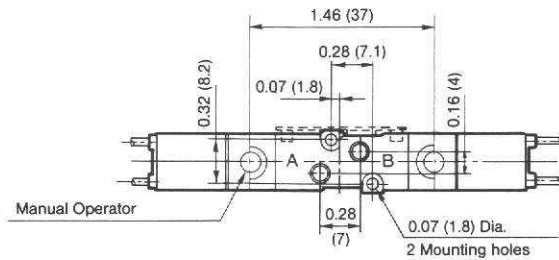


Body Ported Type : Double Solenoid

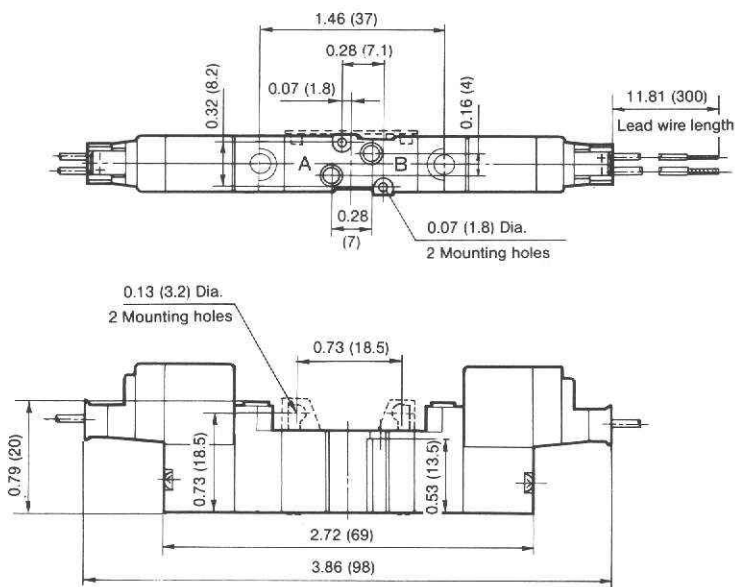
inch(mm)

Grommet (G) : NVJ3220○-○G○-M3

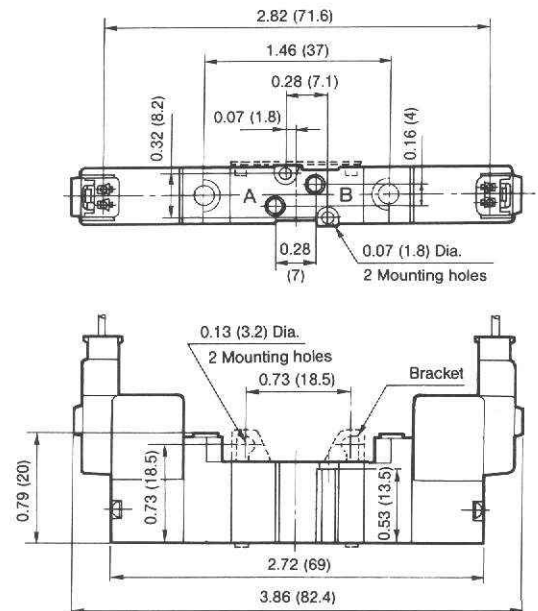
(H) : NVJ3220○-○H○-M3



L Type Plug Connector (L) : NVJ3220○-○L○-M3



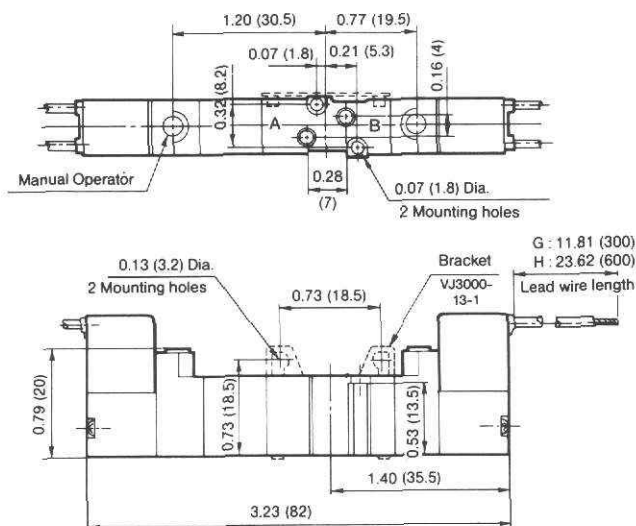
M Type Plug Connector (M) : NVJ3220○-○M○-M3



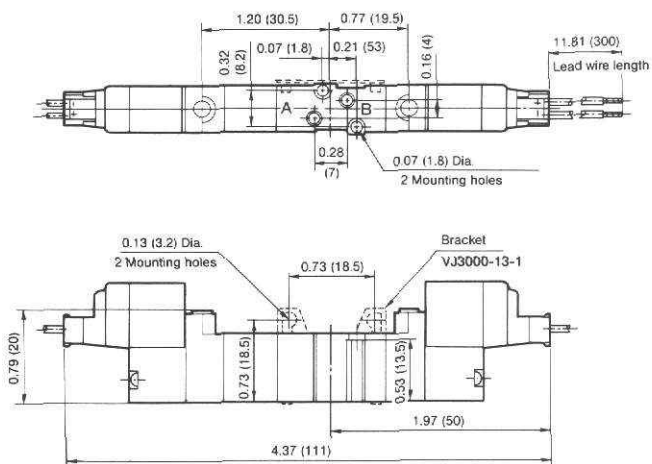
Body Ported Type : 3 Position

inch (mm)

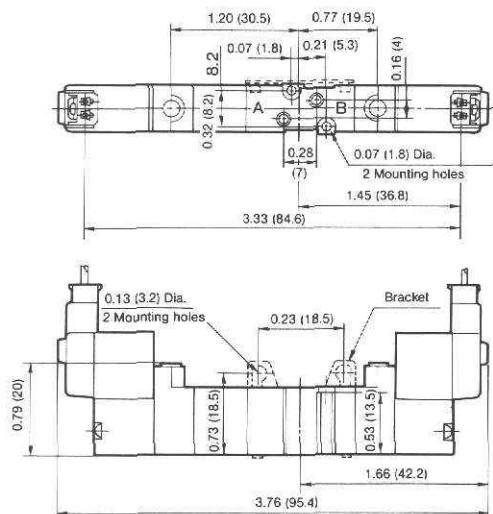
Dimension (G) : NVJ3320○-○G○-M3, NVJ3420○-○G○-M3, NVJ3520○-○G○-M3
 (H) : NVJ3320○-○H○-M3, NVJ3420○-○H○-M3, NVJ3520○-○H○-M3



Type Plug Connector (L) : NVJ3320○-○L○-M3
 NVJ3420○-○L○-M3
 NVJ3520○-○L○-M3



M Type Plug Connector (M) : NVJ3320○-○M○-M3
 NVJ3420○-○M○-M3
 NVJ3520○-○M○-M3

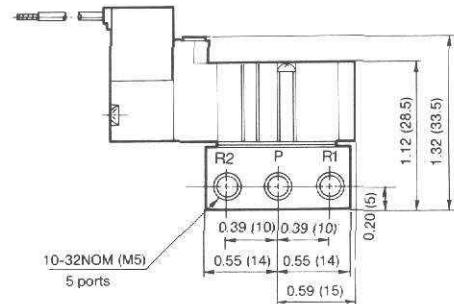
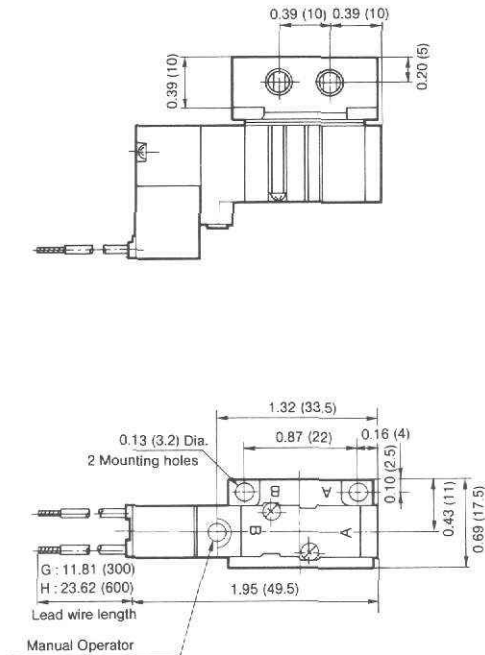


Base Mounted Type with Subplate/2 Position Single Solenoid

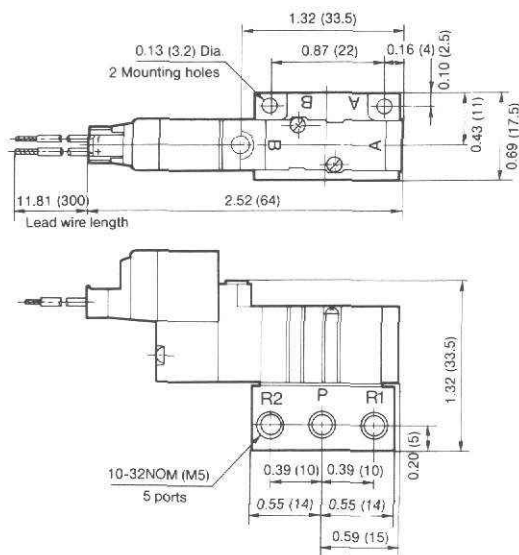
inch (mm)

Grommet (G) : NVJ3140○-○G○-M5

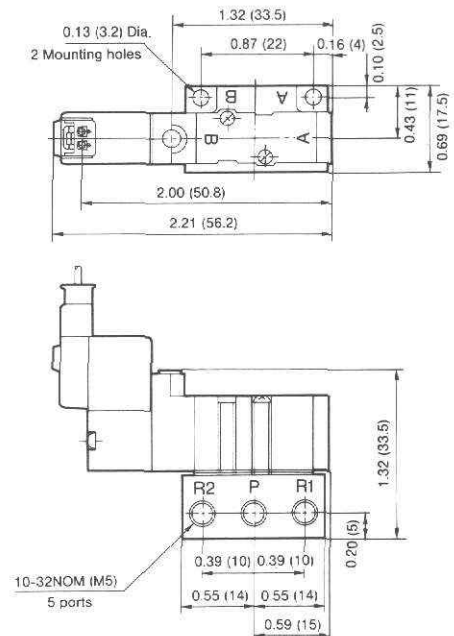
(H) : NVJ3140○-○H○-M5



L Type Plug Connector (L) : NVJ3140○-○L○-M5



M Type Plug Connector (M) : NVJ3140○-○M○-M5

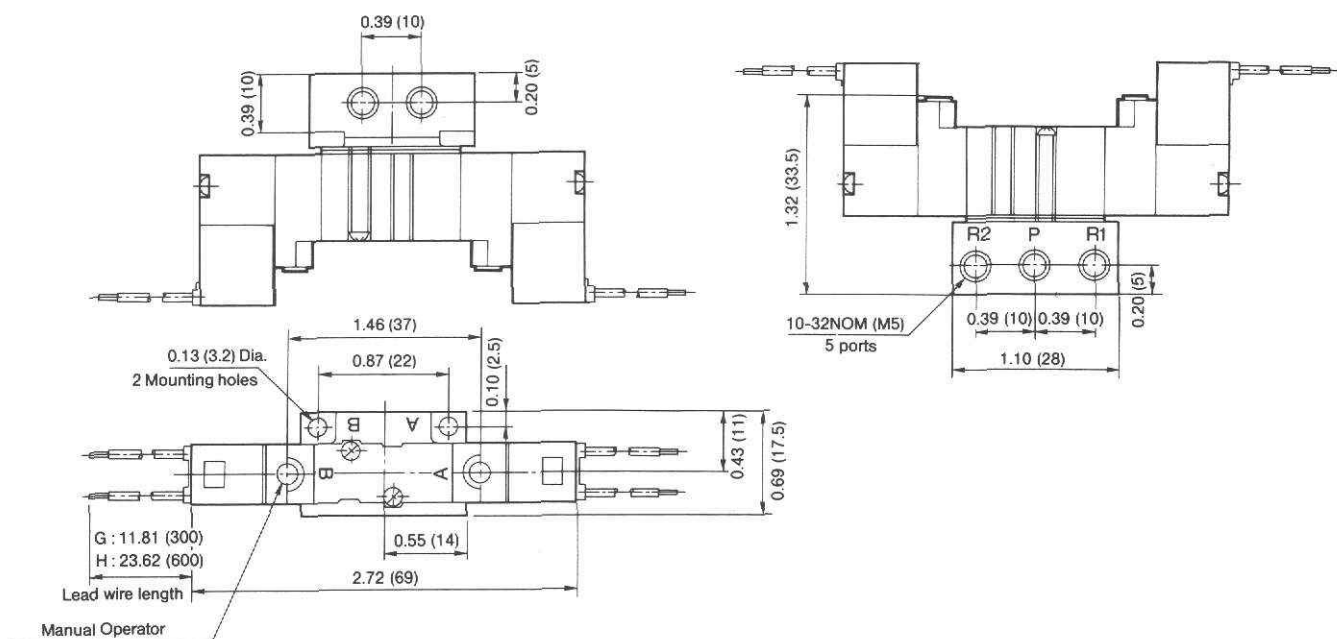


ase Mounted Type with Subplate/2 Position Double Solenoid

inch (mm)

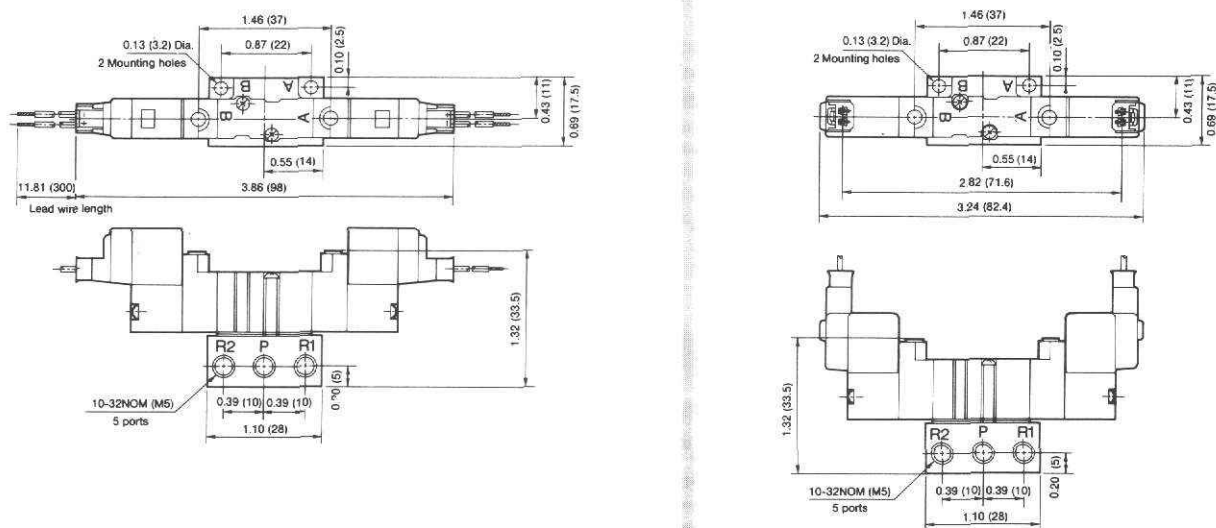
mmet (G) : NVJ3240○-○G○-M5

(H) : NVJ3240○-○H○-M5



ype Plug Connector (L) : NVJ3240○-○L○-M5

M Type Plug Connector (M) : NVJ3240○-○M○-M5

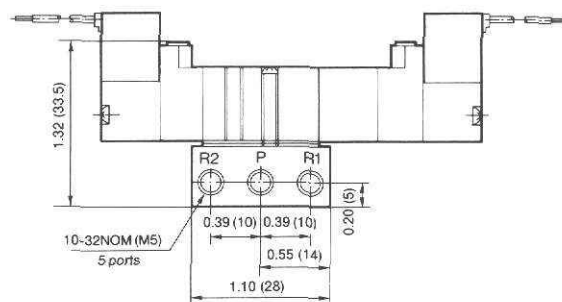
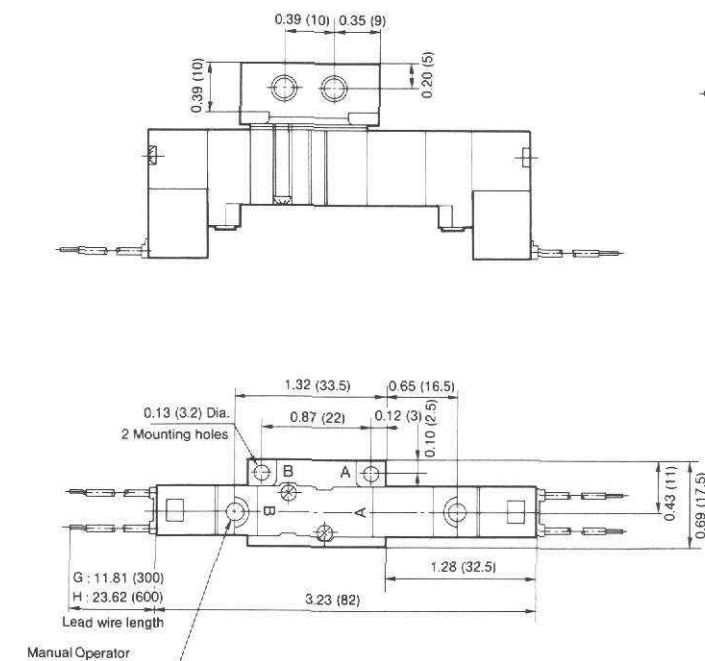


Base Mounted Type with Subplate/3 Position

inch(mm)

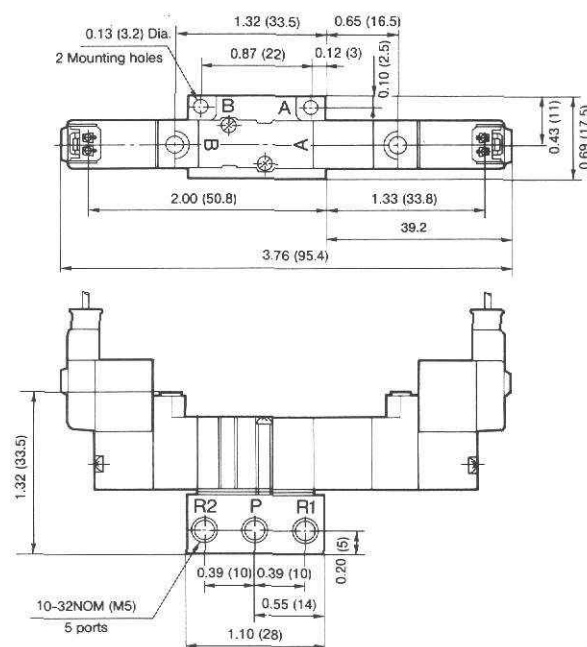
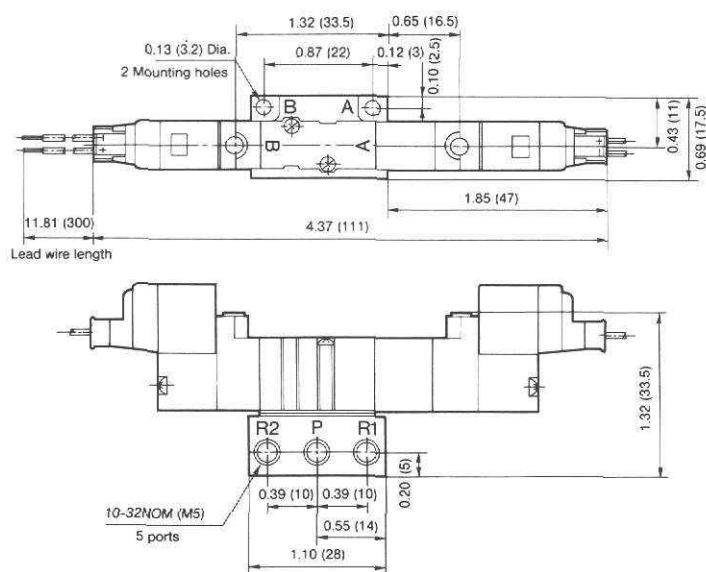
Grommet (G) : NVJ3340○-○G○-M5, NVJ3440○-○G○-M5, NVJ3540○-○G-M5

(H) : NVJ3340○-○H○-M5, NVJ3440○-○H○-M5, NVJ3540○-○H-M5



L Type Plug Connector (L) : NVJ3340○-○L○-M5
NVJ3440○-○L○-M5
NVJ3540○-○L○-M5

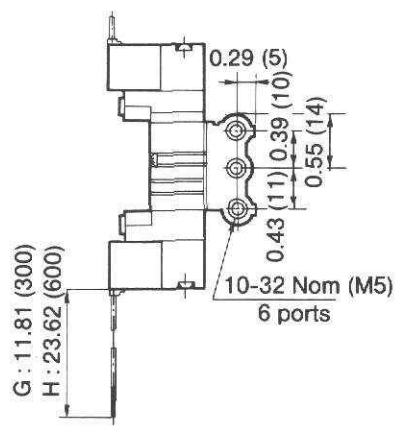
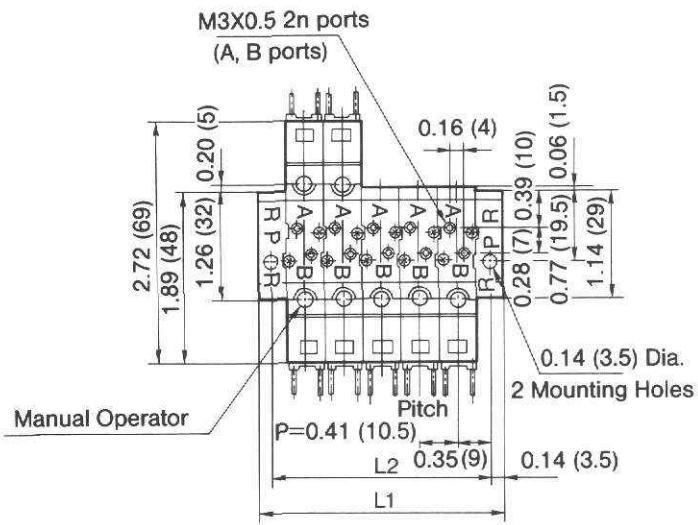
M Type Plug Connector (M) : NVJ3340○-○M○-M5
NVJ3440○-○M○-M5
NVJ3540○-○M○-M5



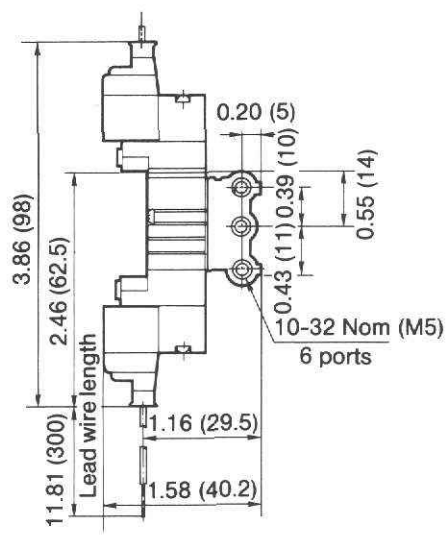
Type 20 Manifold : Top Ported / NVV5J3-20 Stations

inch (mm)

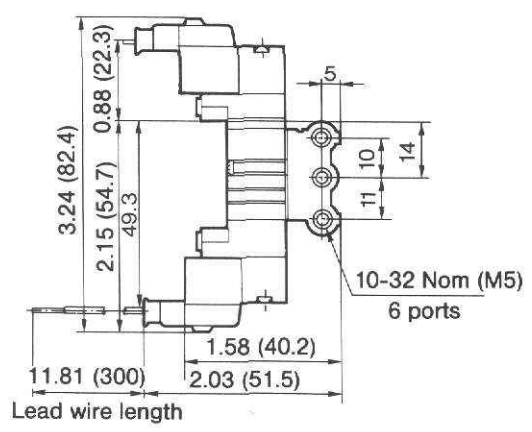
Dimension (G), (H)



Type Plug Connector (L)



M Type Plug Connector (M)

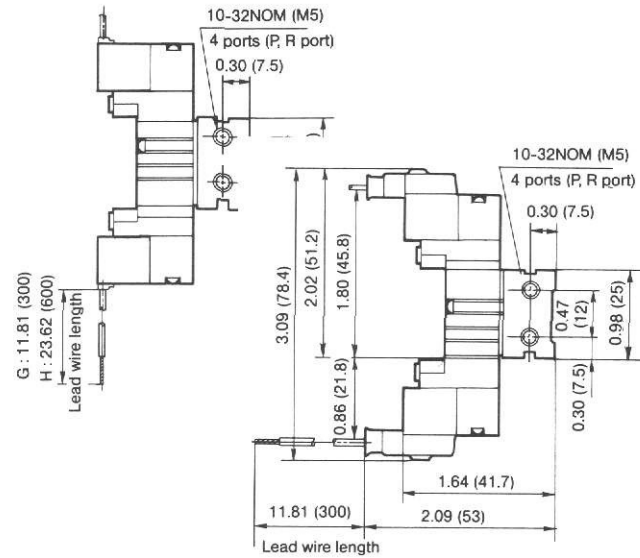
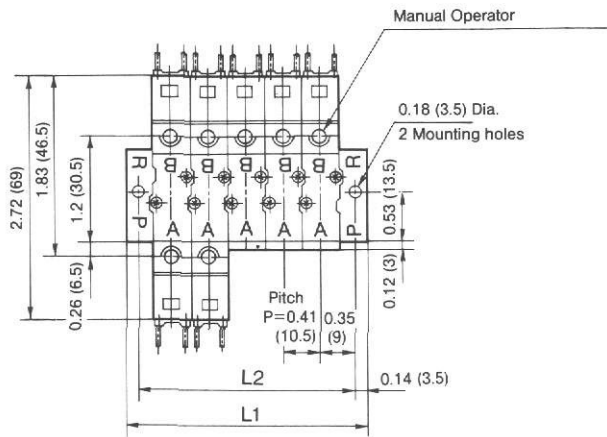


Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1.40 (35.5)	1.81 (46)	2.22 (56.5)	2.64 (67)	3.05 (77.5)	3.46 (88)	3.88 (98.5)	4.29 (109)	4.70 (119.5)	5.12 (130)	5.53 (140.5)	5.94 (151)	6.36 (161.5)	6.77 (172)	7.19 (182.5)	7.60 (193)	8.01 (203.5)	8.43 (214)	8.84 (224.5)
	1.12 (28.5)	1.54 (39)	1.95 (49.5)	2.36 (60)	2.78 (70.5)	3.19 (81)	3.60 (91.5)	4.02 (102)	4.43 (112.5)	4.84 (123)	5.26 (133.5)	5.67 (144)	6.08 (154.5)	6.50 (165)	6.91 (175.5)	7.32 (186)	7.74 (196.5)	8.15 (207)	8.56 (217.5)

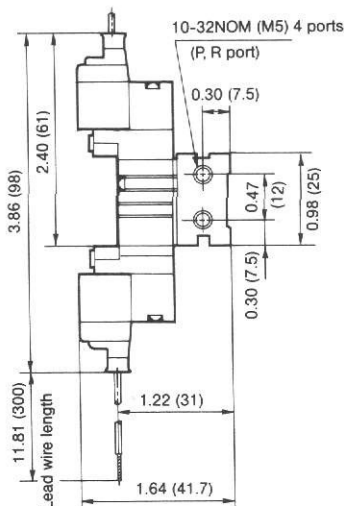
Type 31 Manifold : Side Ported / NVV5J3-31-Stations -M3

inch(mm)

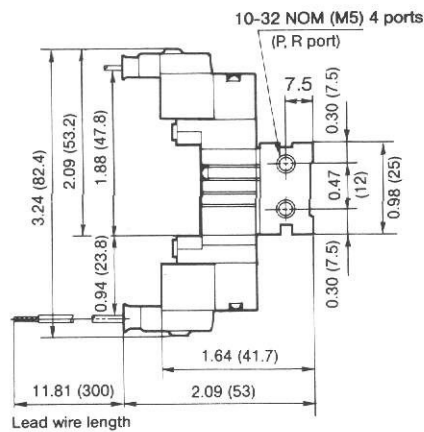
Grommet (G) \ (H)



L Type Plug Connector (L)

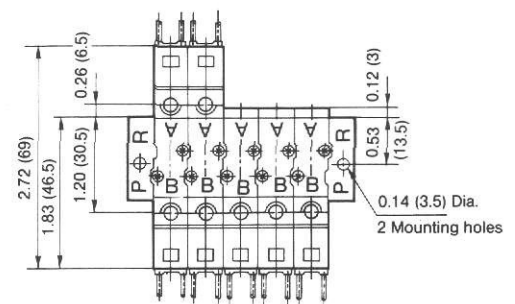


M Type Plug Connector (M)



Type S31 / Side Ported

NVV5J3-S31-Stations -M3

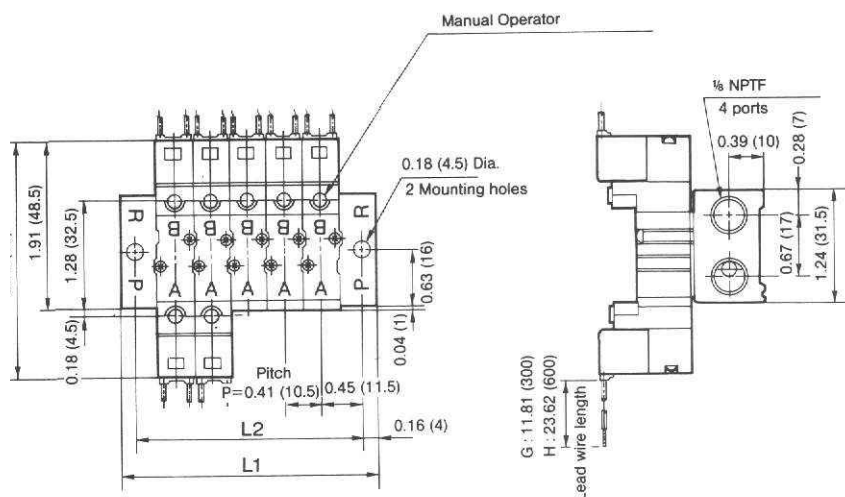


Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.40 (35.5)	1.81 (46)	2.22 (56.5)	2.64 (67)	3.05 (77.5)	3.46 (88)	3.88 (98.5)	4.29 (109)	4.70 (119.5)	5.12 (130)	5.53 (140.5)	5.94 (151)	6.36 (161.5)	6.77 (172)	7.19 (182.5)	7.60 (193)	8.01 (203.5)	8.43 (214)	8.84 (224.5)
L2	1.12 (28.5)	1.54 (39)	1.95 (49.5)	2.36 (60)	2.78 (70.5)	3.19 (81)	3.60 (91.5)	4.02 (102)	4.43 (112.5)	4.84 (123)	5.26 (133.5)	5.67 (144)	6.08 (154.5)	6.50 (165)	6.91 (175.5)	7.32 (186)	7.74 (196.5)	8.15 (207)	8.56 (217.5)

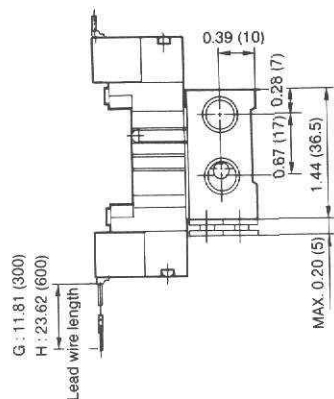
Type 32 Manifold : Side Ported / NVV5J3-32- Stations -M5, B3T

inch (mm)

Dimension (G), (H)



< In Case of B3T >

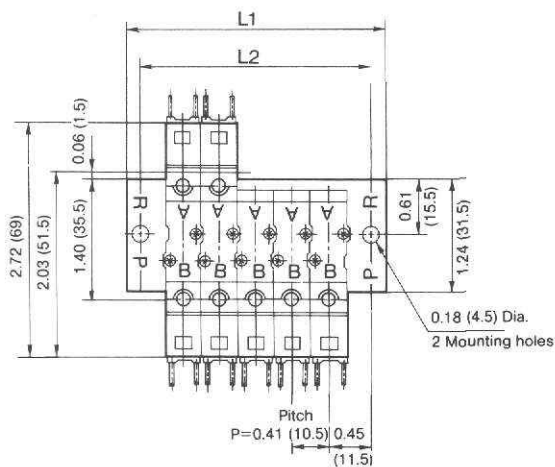
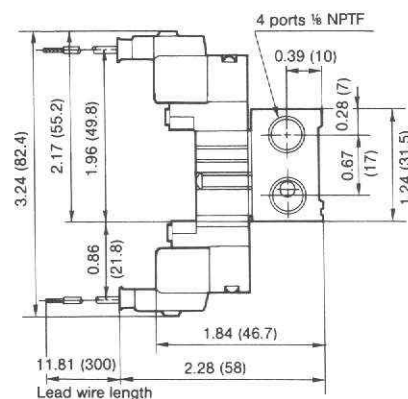
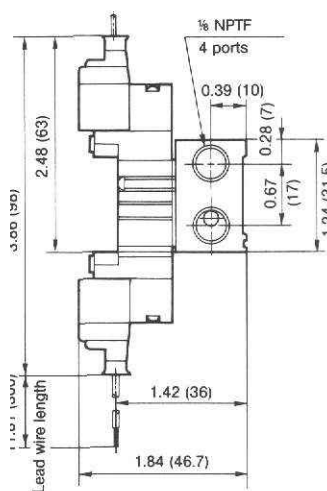


Type S32 / Side Ported

Type Plug Connector (L)

M Type Plug Connector (M)

NVV5J3-S32- Stations -M5, B3T



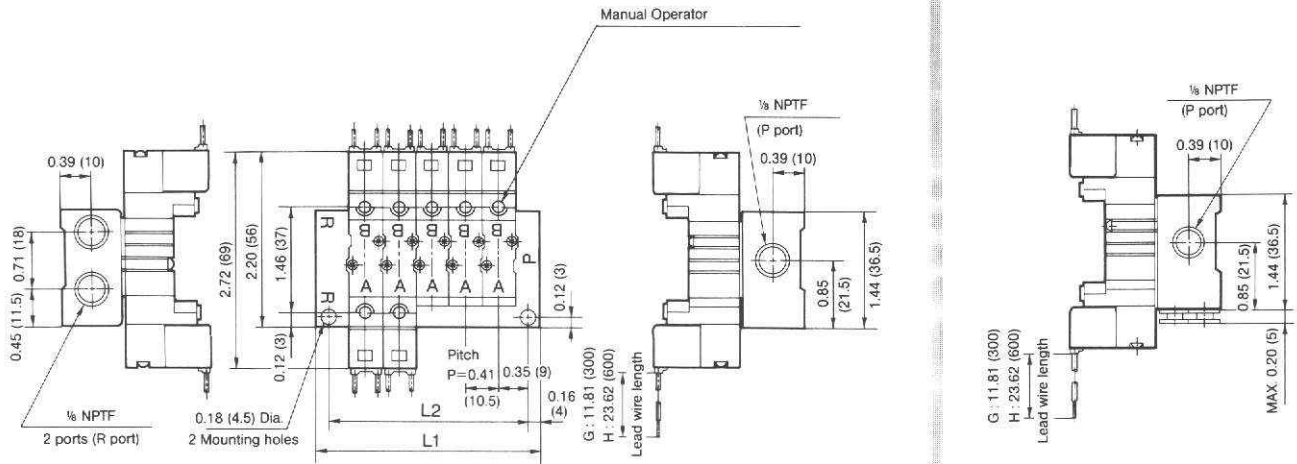
Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.63 (41.5)	2.05 (52)	2.46 (62.5)	2.87 (73)	3.29 (83.5)	3.70 (94)	4.11 (104.5)	4.53 (115)	4.94 (125.5)	5.35 (136)	5.77 (146.5)	6.18 (157)	6.59 (167.5)	7.01 (178)	7.42 (188.5)	7.83 (199)	8.25 (209.5)	8.66 (220)	9.07 (230.5)
2	1.32 (33.5)	1.73 (44)	2.15 (54.5)	2.56 (65)	2.97 (75.5)	3.39 (86)	3.80 (96.5)	4.21 (107)	4.63 (117.5)	5.04 (128)	5.45 (138.5)	5.87 (149)	6.28 (159.5)	6.69 (170)	7.11 (180.5)	7.52 (191)	7.93 (201.5)	8.35 (212)	8.76 (222.5)

Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1.67 (42.5)	2.09 (53)	2.50 (63.5)	2.91 (74)	3.33 (84.5)	3.74 (95)	4.15 (105.5)	4.57 (116)	4.98 (126.5)	5.39 (137)	5.81 (147.5)	6.22 (158)	6.63 (168.5)	7.05 (179)	7.46 (189.5)	7.87 (200)	8.29 (210.5)	8.70 (221)	9.11 (231.5)
2	1.32 (33.5)	1.73 (44)	2.15 (54.5)	2.56 (65)	2.97 (75.5)	3.39 (86)	3.80 (96.5)	4.21 (107)	4.63 (117.5)	5.04 (128)	5.45 (138.5)	5.87 (149)	6.28 (159.5)	6.69 (170)	7.11 (180.5)	7.52 (191)	7.93 (201.5)	8.35 (212)	8.76 (222.5)

Type 41 Manifold : Side Ported / NVV5J3-41-Stations -M5, B3T

inch (mm)

Grommet (G) \ (H)

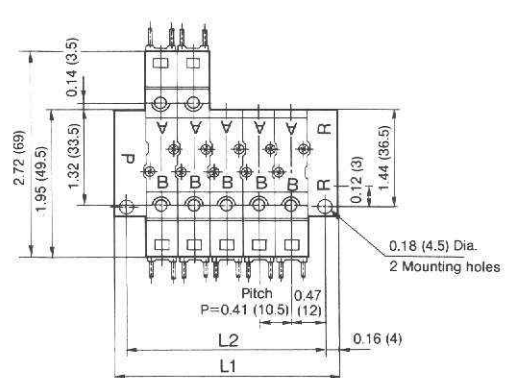
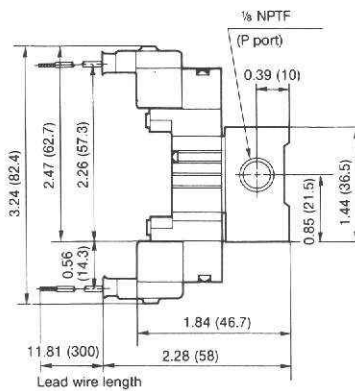
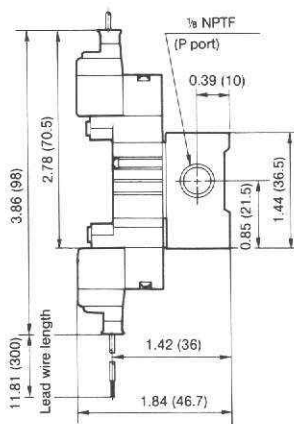


Type S41 / Side Ported

L Type Plug Connector (L)

M Type Plug Connector (M)

NVV5J3-S41-Stations -M5, B3T



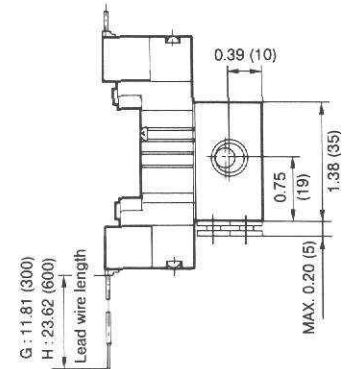
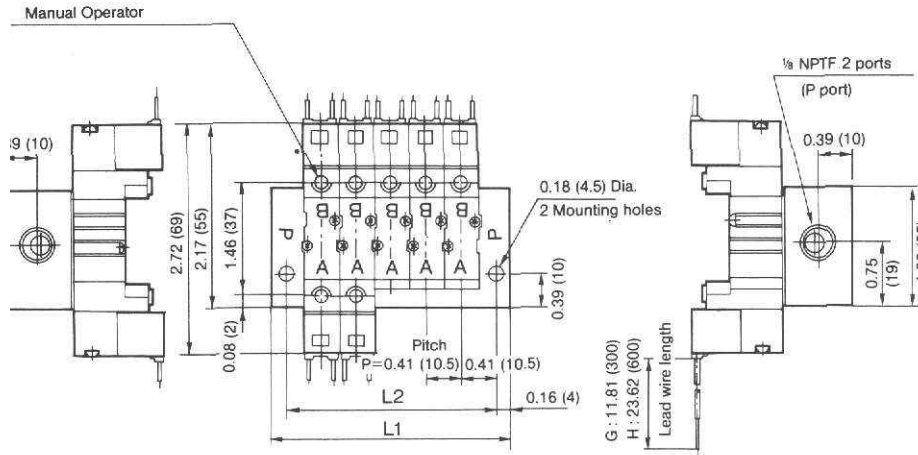
Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	1.56 (39.5)	1.97 (50)	2.38 (60.5)	2.80 (71)	3.21 (81.5)	3.62 (92)	4.04 (102.5)	4.45 (113)	4.86 (123.5)	5.28 (134)	5.69 (144.5)	6.10 (155)	6.52 (165.5)	6.93 (176)	7.34 (186.5)	7.76 (197)	8.17 (207.5)	8.58 (218)	9.00 (228.5)
L2	1.24 (31.5)	1.65 (42)	2.07 (52.5)	2.48 (63)	2.89 (73.5)	3.31 (84)	3.72 (94.5)	4.13 (105)	4.55 (115.5)	4.96 (126)	5.37 (136.5)	5.79 (147)	6.20 (157.5)	6.61 (168)	7.03 (178.5)	7.44 (189)	7.85 (199.5)	8.27 (210)	8.68 (220.5)

Type 46 Manifold : Side Ported / NVV5J3-46- Stations -M5, B3T

inch(mm)

mmet (G)、(H)

< In Case of B3T >

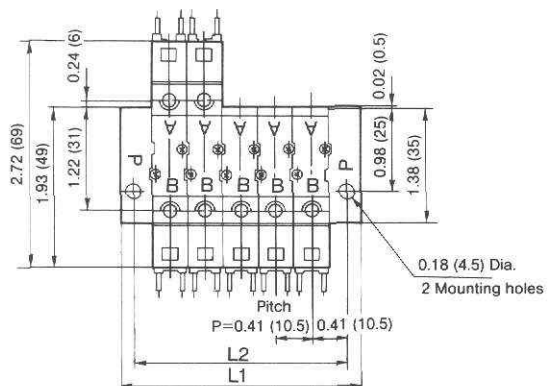
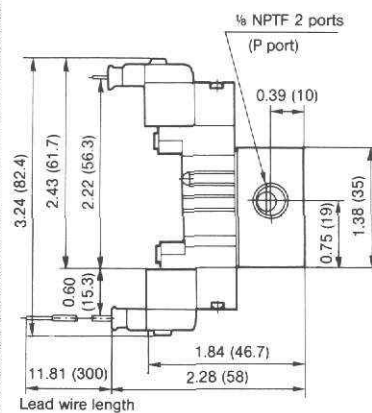
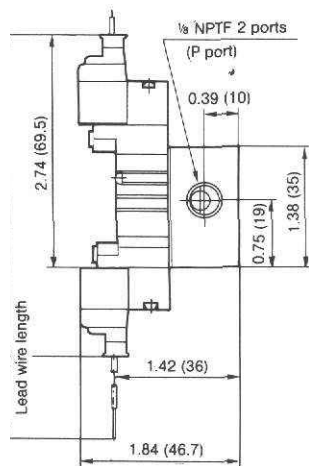


Type S46 / Side Ported

NVV5J3-S46- Stations -M5, B3T

Type Plug Connector (L)

M Type Plug Connector (M)

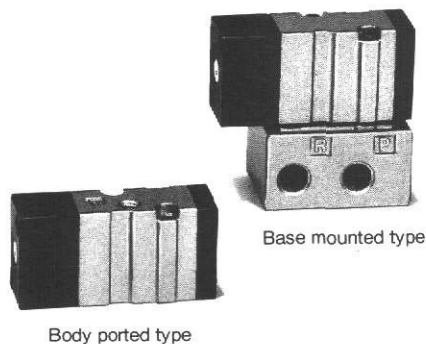


Stations (n)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1.56 (39.5)	1.97 (50)	2.38 (60.5)	2.80 (71)	3.21 (81.5)	3.62 (92)	4.04 (102.5)	4.45 (113)	4.86 (123.5)	5.28 (134)	5.69 (144.5)	6.10 (155)	6.52 (165.5)	6.93 (176)	7.34 (186.5)	7.76 (197)	8.17 (207.5)	8.58 (218)	9.00 (228.5)
	1.24 (31.5)	1.65 (42)	2.07 (52.5)	2.48 (63)	2.89 (73.5)	3.31 (84)	3.72 (94.5)	4.13 (105)	4.55 (115.5)	4.96 (126)	5.37 (136.5)	5.79 (147)	6.20 (157.5)	6.61 (168)	7.03 (178.5)	7.44 (189)	7.85 (199.5)	8.27 (210)	8.68 (220.5)

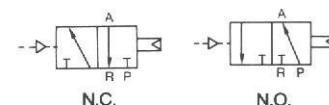
Cv 0.05, 0.1

3 Port Air Operated Valves

Series: NVJA300



Symbol



Model

Body type	Model	Type of actuation	Port size	Cv factor	Pilot port size	Weight lbs (gf)
Body ported type	NVJA312-M3	N.C.	M3×0.5	0.05	M3×0.5	0.04 (18)
	NVJA322-M3	N.O.	[M3×0.5]	[0.05]		
Base mounted type with subplate	NVJA314-M5	N.C.	10-32 Nom. (M5)	0.1		0.086 (39)
	NVJA324-M5	N.O.	[10-32 Nom. (M5)] [B3T]	[0.08]		[Without subplate] 0.04 (18)

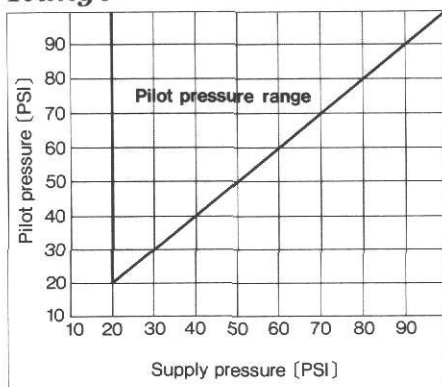
Note) B3T : One touch fitting for $\frac{1}{8}$ " tube.
[] : In case of manifold.

Specifications

Fluid	Air and inert gases
Operating pressure range	20~100PSI (1.5~7kgf/cm ²)
Pilot pressure range	P ~ 100PSI (P ~ 7kgf/cm ²) P : supply pressure
Ambient and fluid temperature	Max. 120°F (50°C)
Lubrication	Not required
Mounting position	Free
Impact/vibration resistance	15G/3G (8.3~2000Hz)

How To Order

Operating Pilot Pressure Range



—: Without bracket
F: With bracket
VJ3000-13-3
(Factory installed only)

• Bracket

—: Without subplate
M5: With 10-32 Nom. (M5) subplate
(VJ300-9-1)

Body Ported Type NVJA3 ① 2-M3-○

Base Mounted Type NVJA3 ② 4-○

Type of actuation

1	Normal closed
2	Normal open

Port size

Manifold Base: How to Order

Refer to NVJ300 series. Manifold base type 20, 41, S41, 42 and S42 are available. (Refer to page 10).

When ordering, please specify the appropriate valves and/or blanking plate assembly with the manifold base.

Example) **NVV3J3-41-03-M3**

1 pc.....NVJA314

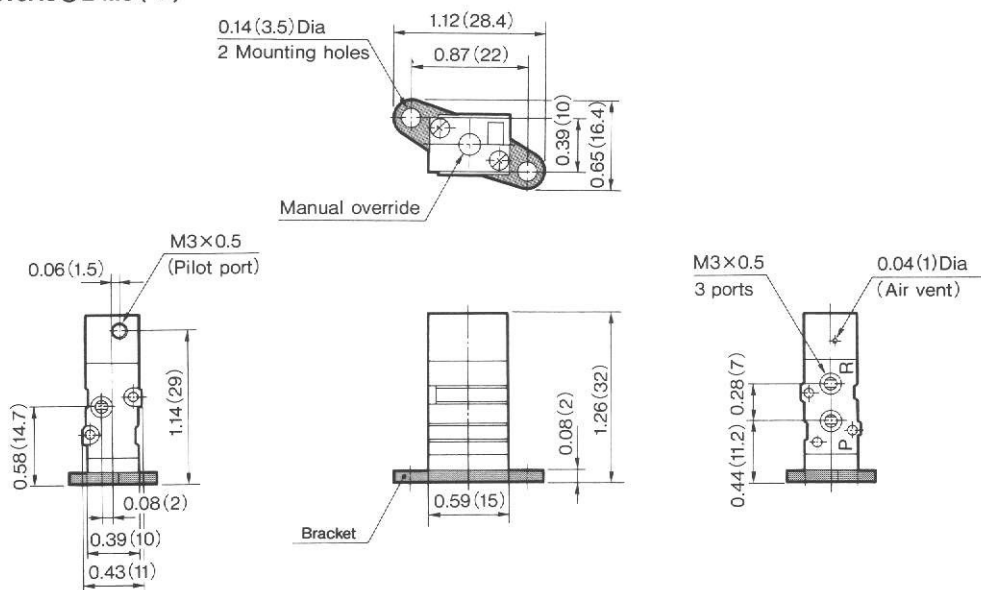
1 pc.....NVJA324

1 pc.....VJ300-10-1A

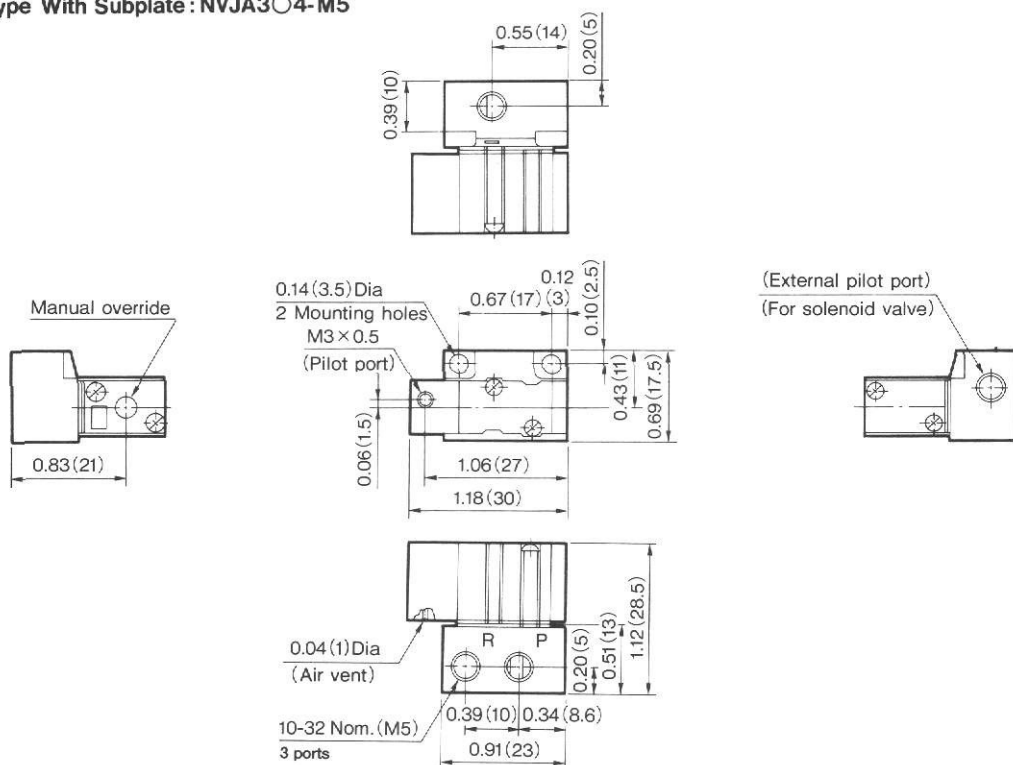
Dimensions

inch (mm)

Manifold Ported Type: NVJA3○2-M3 (-F)

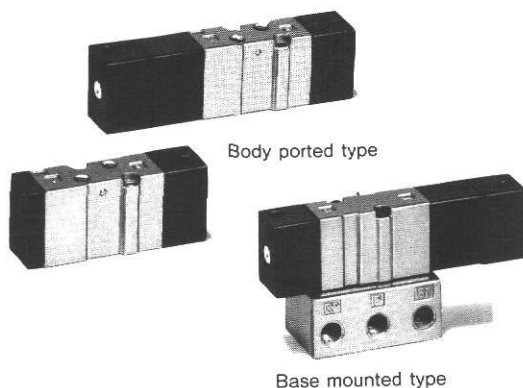


Subplate Mounted Type With Subplate: NVJA3○4-M5



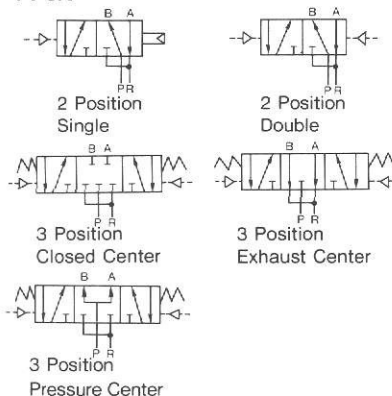
Cv 0.05, 1

5 Port Air Operated Valve Series: NVJA3000

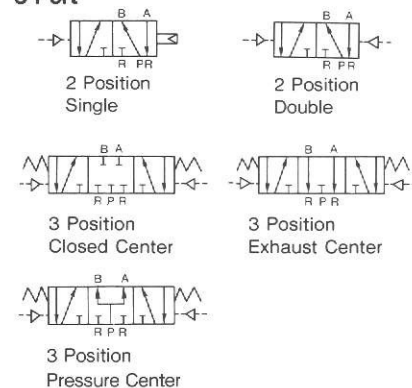


Symbol

4 Port



5 Port



Model

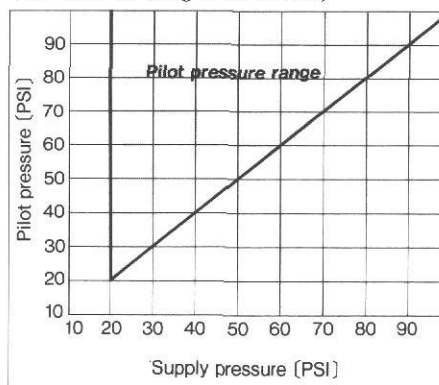
Body type	Model	Type of actuation	Port size	Cv factor	Pilot port size	Weight lbs (gf)
Body ported type	NVJA3120	2 position single	M3×0.5 [M3×0.5]	0.05 [0.05]	M3×0.5	0.048 (22)
	NVJA3220	2 position double				0.055 (25)
	NVJA3320	3 position closed center				0.062 (28)
	NVJA3420	3 position exhaust center				
	NVJA3520	3 position pressure center				
4 port Base mounted type (manifold only)	NVJA3130	2 position single	M3×0.5 10-32 Nom. (M5) One touch fitting for 5/32" tube	0.05 0.067	M3×0.5	0.048 (22)
	NVJA3230	2 position double				0.055 (25)
	NVJA3330	3 position closed center				0.062 (28)
	NVJA3430	3 position exhaust center				
	NVJA3530	3 position pressure center				
5 port Base mounted type	NVJA3140	2 position single	10-32 Nom. (M5) [10-32 Nom. (M5)] One touch fitting for 5/32" tube	1.0 [(S) 41 : 0.08] [(S) 46 : 0.055]	M3×0.5	0.106 (48) <0.048 (22)>
	NVJA3240	2 position double				0.112 (51) <0.055 (25)>
	NVJA3340	3 position closed center				0.119 (54) <0.062 (28)>
	NVJA3440	3 position exhaust center				
	NVJA3540	3 position pressure center				

< > : Without subplate

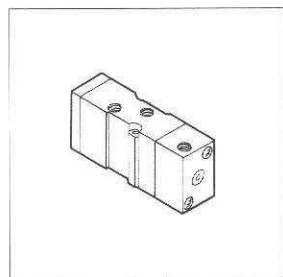
Specifications

Fluid	Air and inert gases	
Operating pressure range	2 position single	20~100PSI (1.5~7kgf/cm ²)
	2 position double	0~100PSI (0~7kgf/cm ²)
	3 position	0~100PSI (0~7kgf/cm ²)
Pilot pressure range	2 position single	P~100PSI (P~7kgf/cm ²) P: Supply pressure
	2 position double	14~100 (1~7kgf/cm ²)
	3 position	28~100 (2~7kgf/cm ²)
Ambient and fluid temperature	Max. 120°F (50°C)	
Lubrication	Not required	
Mounting position	Free	
Impact/Vibration resistance	15G/3G (8.3~2000Hz)	

Operating Pilot Pressure Range (In Case of Single Solenoid)



How to Order



Body Ported Type

NVJA3 1 20-M3-

Port/Base Mounted Type

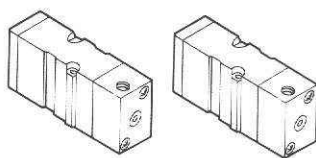
NVJA3 2 30 (Manifold only)

Port/Base Mounted Type

NVJA3 3 40-

4 port

5 port



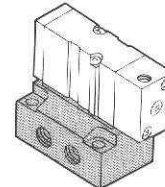
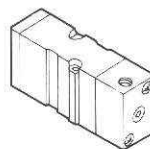
• Type of actuation

- | | |
|---|----------------------------|
| 1 | 2 position single |
| 2 | 2 position double |
| 3 | 3 position closed center |
| 4 | 3 position exhaust center |
| 5 | 3 position pressure center |

• Port size

— : Without subplate

M5 : With 10-32 Nom. (M5) subplate



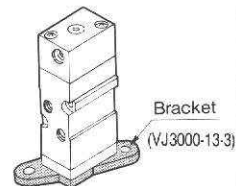
(VJ3000-22-1)

• Bracket

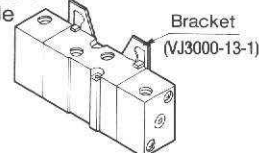
F : With bracket

In case of single

(factory installed only)



In case of double



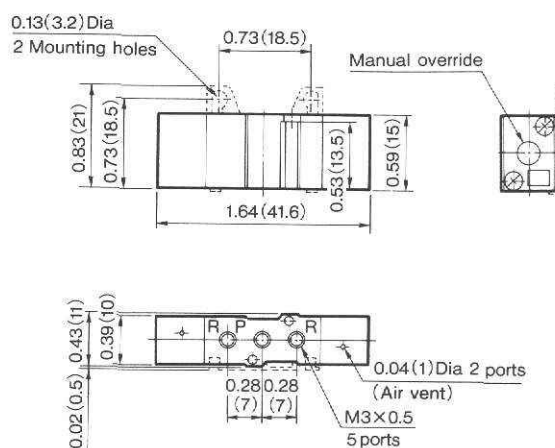
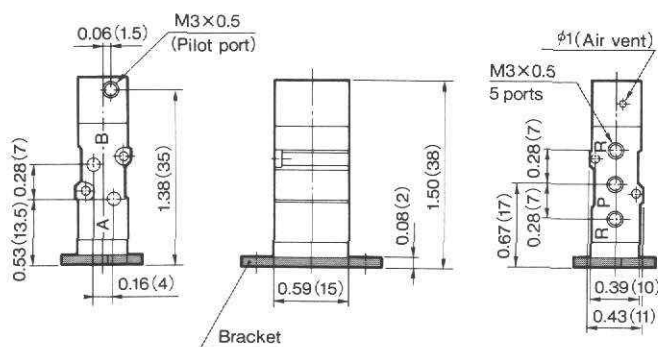
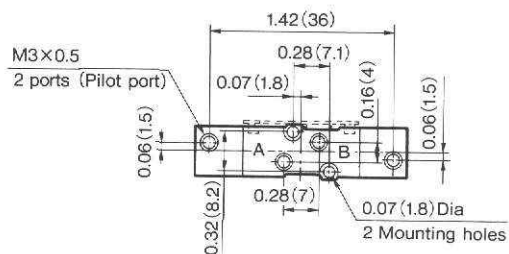
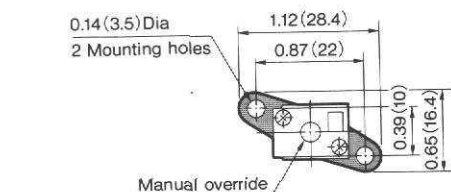
Manifold Base: How to Order

Refer to the NVJ3000 series (Refer to page 22).

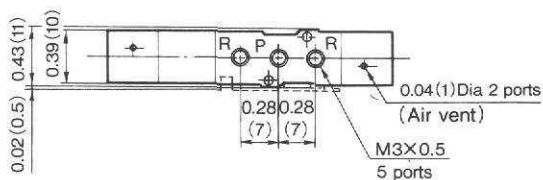
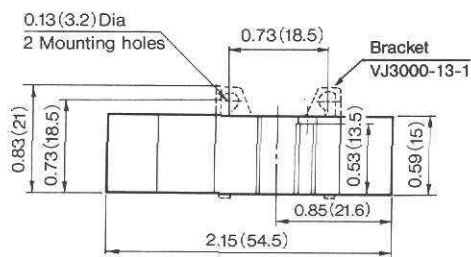
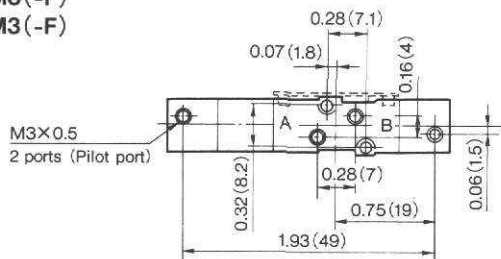
Body Ported Type

2 Position Single : NVJA3120-M3(-F)

2 Position Double : NVJA3220-M3(-F)

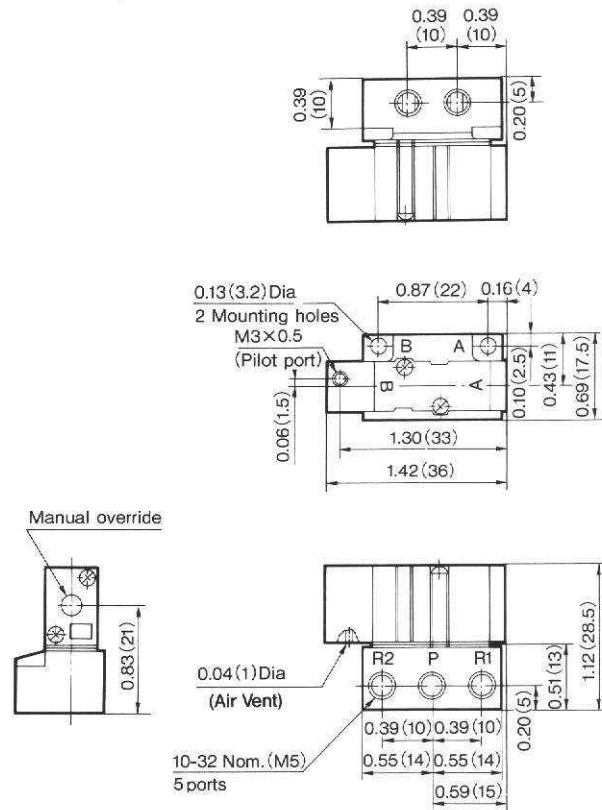


3 Position : NVJA3320-M3(-F)
NVJA3420-M3(-F)
NVJA3520-M3(-F)

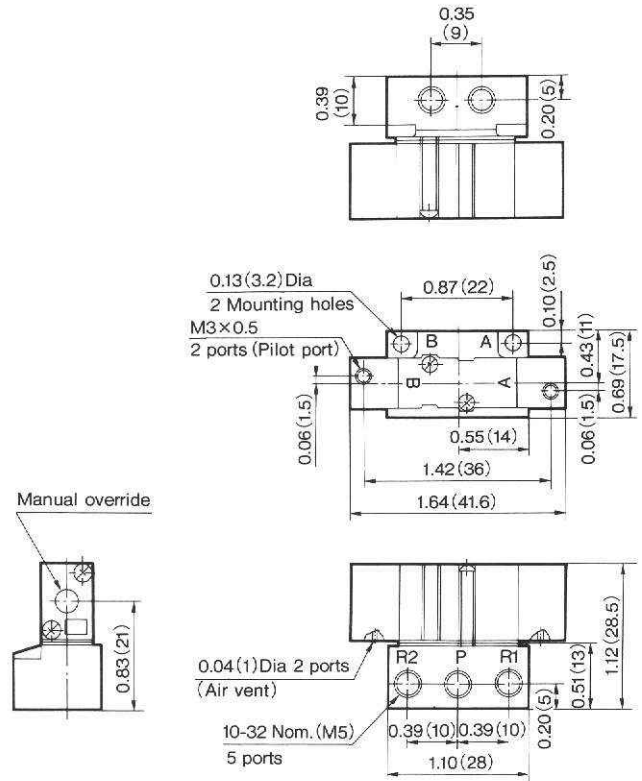


ase Mounted Type with Subplate

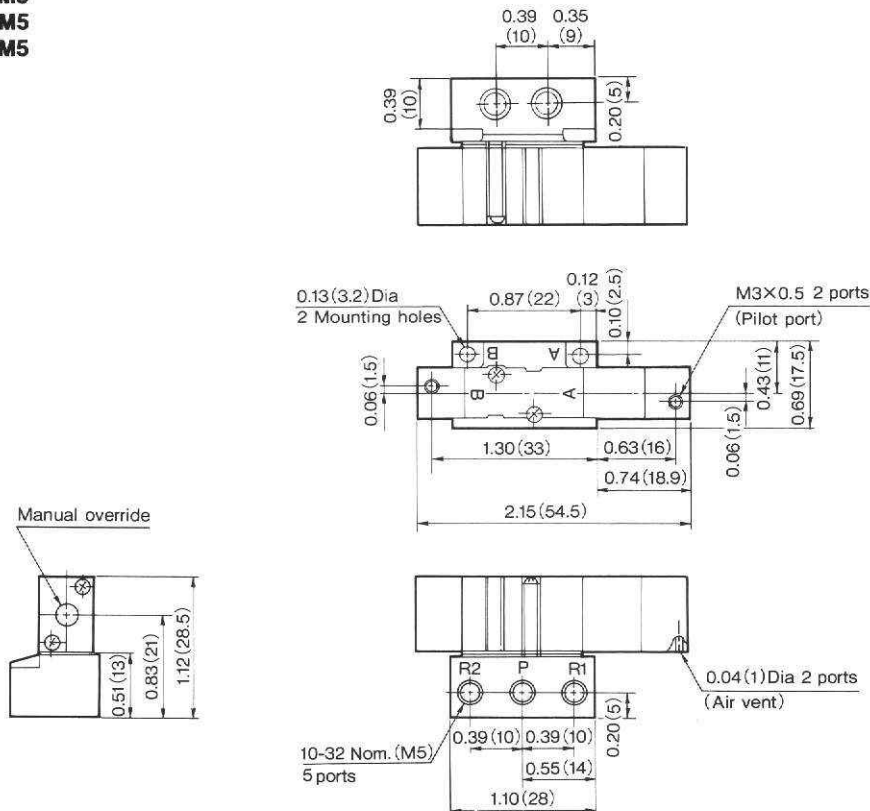
osition Single : NVJA3140-M5



2 Position Double : NVJA3240-M5



osition : NVJA3340-M5
NVJA3440-M5
NVJA3540-M5



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