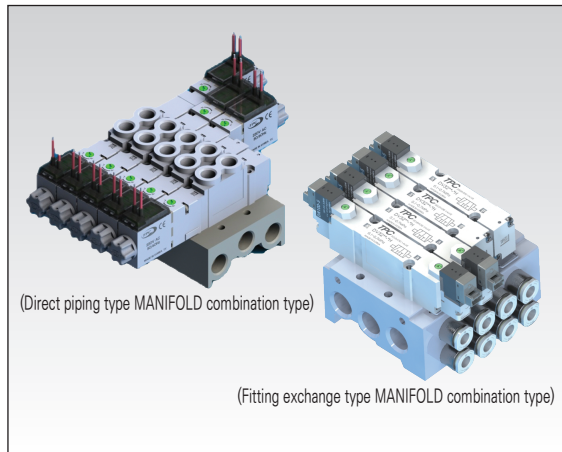


Series DV1000·3000·4000

5port Pilot Solenoid Valve



● UL certified

● QUICK RESPONSE TIME & LARGE FLOW CAPACITY

- Response time is less than 12ms (DR1000)
- Increase of CV factor
- 2.5 times larger than conventional valve with the same body width)
- Low power consumption : 0.6W
(Current draw : 25mA at 24V DC)

● HIGH RELIABILITY

- Long life
- Wear Ring → To prevent spool abrasion
- U Packing → To minimize frictional resistance
- Piston return type at retraction

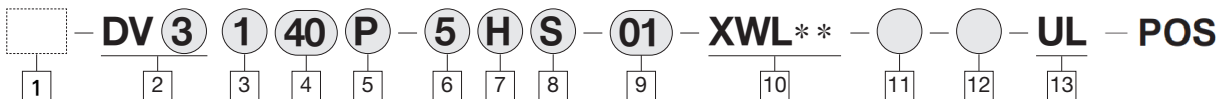
● Product Diversity

- Collective Exhaust Structure Basic Specifications
- Equipped with built-in fitting specifications (direct piping type)
- Equipped with external pilot type (DV1000, 3000, 4000)

● Corresponds to secondary battery specifications

- Compatible with DV3000, 4000 series

How to order



1 Corresponds to secondary battery specifications
Blank : Standard type
2B : Secondary battery compatible series

2 DV Valve Series

3 : DV3000 Series
4 : DV4000 Series
※ The DV1000 series corresponds to secondary battery specifications not allowed

3 Configuration

1 : Single Solenoid
2 : Double Solenoid
3 : Closed Center
4 : Exhaust Center
5 : Pressure Center

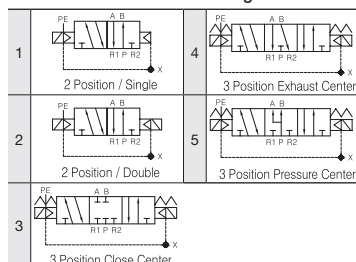
4 Manifold Specifications

20 : Body Ported
40 : Base Mounted
※ Interior fitting type is just for body ported type

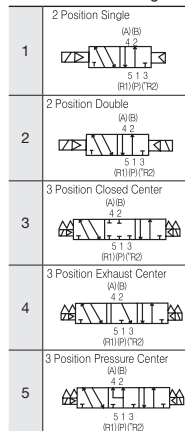
5 Pilot Configuration

Blank : Internal Pilot
External Pilot
(External pilot is possible only to the one with sub plate)

External Pilot Valve Circuit Diagram



Standard Circuit Diagram



6 Voltage

5 : DC24V
6 : DC12V
1 : AC110V
2 : AC220V

7 Electrical Entry

V : Vertical Connector
H : Horizontal Connector (Impossible AV Voltage)
G : Grommet Type (Basic Option Lamp)
D : Din Terminal Type (Without Lamp)
DZ : Din terminal Type
N : Din Connector attachable (No Connector)

※ G, D, DZ, DZ types are for DVDV3000 and 4000 only
※ Secondary battery specifications are G, D, DZ, N type DC24V, DC12V only available

8 PCB Type

Blank : Basic Type(Lamp Type)
D : Non-Polar Type : Lamp Type
N : Excluding lead wires
S : Power Saving Type(0.85→0.45W)
※ Applicable range of D, S is only for VH type of DC

9 Piping Option

Direct Piping Type

M5 : M5 x 0.8 (DV1000 Series)
01 : Rc(PT)1/8 (DV3000 Series)
02 : Rc(PT)1/4 (DV4000 Series)

Base Piping Type(With sub plate, based on A B port)

M5 : M5 x 0.8 (DV1000 Series) - External Pilot only
02 : G1/4 (DV3000, 4000 use)

10 Length of Wire

Blank : 300mm(Standard)
※ Wiring method G(Grommet Type) Blank : 400mm(Standard)
XWL 01 : 100mm
XWL 02 : 200mm
: 20 : 2000mm

※ For manual operation Push &, Lock Push & Lock integral type is the basic type.
※ Lead wire length specifications refer to the lead wire entry method
G (grommet type) only available

11 Series

Blank : Standard Type

※ Fitting built-in specifications (for body piping type)

Symbol	Content	Application Series
Blank	Fitting built in	All Series
T4	Ø4 One Touch Fitting	DV1000 Series
T6	Ø6 One Touch Fitting	
T4	Ø4 One Touch Fitting	DV3000 Series
T6	Ø6 One Touch Fitting	
T8	Ø8 One Touch Fitting	DV4000 Series
T8	Ø8 One Touch Fitting	
T10	Ø10 One Touch Fitting	

※ No symbol for secondary battery specifications : Standard type only available

12 OPTION

Blank : Non-Bracket
FB : FOOT BRACKET
SB : SIDE BRACKET
1) Foot type is only for DV1000, 3000 single type.
2) Bracket is shipped unassembled.
3) Bracket is only for direct piping type.

13 UL RESPONSE

Blank : Standard Type
UL : UL counterpart

* POS - Smooth Piston Operation

△ It is possible to respond only to products marked with the 2B series, but some Options are not available aluminum alloy material is an additive element it contains a small amount of copper (Cu) and zinc (Zn) for details, please contact us.

※ The 2B series specifications and external dimensions are the same as the standard product.

Series DV1000

PILOT Valve ASS'Y(G, D, DZ)

DV3 — **5** **G** — **XWL****

1 2 3 4

1 DV Series Pilot Valve Ass'y
(for DV3000, DV4000)

2 Voltage

5 : DC24V

3 Electrical Entry

G : Grommet type(Lamp)

D : Din Terminal type(No Lamp)

DZ : Din Terminal type(Lamp)

4 Length of Lead Wire

Blank : 300mm(Basic)

XWL 01 : 100mm

02 : 200mm

:

20 : 2000mm

PORT PLUG ASS'Y

DV **000** —

1 2

1 DV Series

1 : DV1000 Series

3 : DV3000 Series

4 : DV4000 Series

2 Port Connector Diameter

Symbol	Content	Application Series
T4	Ø4 One Touch Fitting	DV1000
T6	Ø6 One Touch Fitting	
T4	Ø4 One Touch Fitting	DV3000
T6	Ø6 One Touch Fitting	
T8	Ø8 One Touch Fitting	DV4000
T8	Ø8 One Touch Fitting	
T10	Ø10 One Touch Fitting	

Mainfold

DVM **I** **P** — **40**

1 2 4

1 1 : DV1 000 Series(Exterior Pilot Type Valve(Mainfold))
3 : DV 3000 Series(Exterior Pilot Type Valve(Mainfold))

2 Manifold Specification

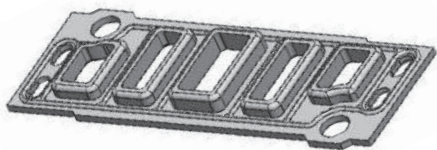
40 : Base Mount

3 Base Station Number

1~20 : Station

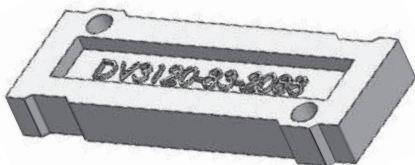
* Note(Station 1 has Sub Plate)

Manifold Gasket



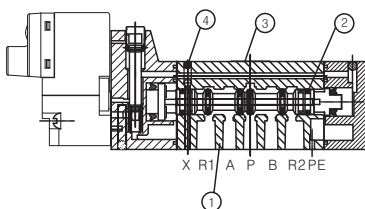
DV Manifold Gasket	
Series	Number
DV1000	DV1140-52-2083
DV3000	DV3140-52-2093
DV4000	DV4140-52-2107

Blank Plate



DV Blank Plate			
Series	Number	Name	Note
DV1000	DV1120-83-2078	DV1000 Blank Plate	
DV3000	DV3120-83-2088	DV3000	Rubber
DV4000	DV4120-83-2102	DV4000	

Construction

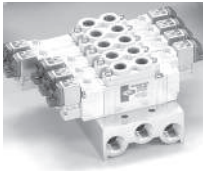


No.	Part Number	Part Name	Qty	Note
①	DV1140P-02-2178	Valve Body(For External Pilot Valve)	1	
②	RS1140-27-2208	Spool O-Ring	2	RS1000
③	DV1140P-42-2178	Name Plate	1	(Singel)
④	Standard Part	Steel Ball	2	Ø1.7

Note) Parts not in the below list are same as standard parts for internal pilot valve.

Series DV1000

Manifold



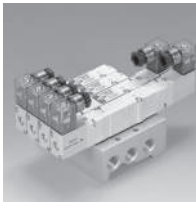
Body ported(Plug Type)



Base Mounted(Grommet Type)



Body ported(DIN Type)



Base Mounted(DIN Type)

Specifications

Series		DV1000	DV3000	DV4000
Action		5 Port Pilot Type Solenoid Valve(Rubber Seal)		
Fluid		Air(Vacuum is Available)		
Operating	2Position Single	0.25~0.7(2.5~7.1)		0.15~0.7(1.5~7.1)
Pressure	2Position Double	0.25~0.7(2.5~7.1)		0.1~0.7(1~7.1)
Range(MPa, kgf/cm ²)	3 Position	0.25~0.7(2.5~7.1)		0.2~0.7(2~7.1)
Main (P, A, B Port) Use Pressurer (MPa)		-100KPa ~ 0.7		-
Ambient and Fluid Temperature(°C/°F)		MAX. 50°C (122°F)		
Manual Override		Push&Lock Type		
Pilot Exhaust Type		Individual exhaust Common exhaust for main valve and pilot Valve		
		Mainfold PE Port Command Exhaust Type(Separated Piping)		-
Lubrication		Not Required		
Mounting Position		Free		
Impact/Vibration	H.V	150/30(8.3~2000Hz)		
Resistance(m/s)	G,D,DZ	300/50		
Max. Operating	2Position	10	5	5
Frequency	3 Position	3	3	3
Protection Structure		Dust Proof		
Lead Electrical Entry		Connector Mounting Type (H:Horizontal,V:Vertical), Grommet, Din Terminal Type		
Voltage		DC12, DC24V, AC110V, AC220V		
Voltage Allowance		-10(%)~+10(%) of Rated Voltage		
Polarity		Non-polar (standard) (*DC24V: Polarity type)		
Response Time(ms)	at 5kgf/cm ² (71.1psi)	H.V	~12ms	~18ms
		G,D,DZ	~26ms	30ms
Power		H.V	1.0(*DC24V:0.6)(Indicator Light and Surge suppressor)	
Consumption(W)		G,D,DZ	With Lamp(1.8) Without Lamp(1.6)	
Effective Orifice		Single	3.6mm ² (Cv0.2)	9.0mm ² (Cv0.5)
				16.2mm ² (Cv0.9)

* The other options same as standard type(Body ported type DV1000, 3000)

Series DV1000 · 3000 · 4000 Body Ported Type Effective Orifice and Reponse Time

Type	Valve Model	Port Size Rc(PT)/NPT	Configuration		Operating Pressure Range Mpa (psi)	Effective Orifice (mm ²) (Cv)	Response Time(ms)		Weight · g(oz)
							H, V	G, D, DZ	
DV1120-O-M5	DV 1120	M5/ 10-32 UNF	2	Single	0.15~0.70 (20~100)	3.6 (0.20)	~12	-	52(1.83)
DV1220-O-M5	DV 1220			Double	0.10~0.70 (14~100)	3.6 (0.20)	~10	-	64(2.26)
DV1320-O-M5	DV 1320		3	Closed Center	0.20~0.70 (27~100)	3.3 (0.18)	~16	-	68(2.4)
DV1420-O-M5	DV 1420			Exhaust Center	0.20~0.70 (27~100)	3.3 (0.18)	~16	-	68(2.4)
DV1520-O-M5	DV 1520			Pressure Center	0.20~0.70 (27~100)	3.6 (0.20)	~16	-	68(2.4)
DV3120-O-M5	DV 3120	Rc(PT)/NPT 1/8"	2	Single	0.15~0.70 (20~100)	9.0 (0.50)	~18	~26	120(4.23)
DV3220-O-M5	DV 3220			Double	0.10~0.70 (14~100)	9.0 (0.50)	~18	~22	134(4.72)
DV3320-O-M5	DV 3320		3	Closed Center	0.20~0.70 (27~100)	7.2 (0.40)	~32	~38	142(5.01)
DV3420-O-M5	DV 3420			Exhaust Center	0.20~0.70 (27~100)	7.2 (0.40)	~32	~38	142(5.01)
DV3520-O-M5	DV 3520			Pressure Center	0.20~0.70 (27~100)	9.5 (0.53)	~32	~38	142(5.01)
DV4120-O-M5	DV 4120	Rc(PT)/NPT1 1/4"	2	Single	0.15~0.70 (20~100)	16.2 (0.90)	~30	~38	124(4.37)
DV4220-O-M5	DV 4220			Double	0.10~0.70 (14~100)	16.2 (0.90)	~30	~30	136(4.8)
DV4320-O-M5	DV 4320		3	Closed Center	0.20~0.70 (27~100)	10.8 (0.60)	~50	~56	144(5.08)
DV4420-O-M5	DV 4420			Exhaust Center	0.20~0.70 (27~100)	10.8 (0.60)	~50	~56	144(5.08)
DV4520-O-M5	DV 4520			Pressure Center	0.20~0.70 (27~100)	17.1 (0.96)	~50	~56	144(5.08)

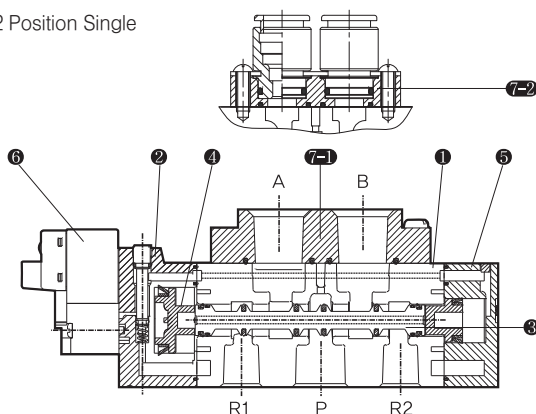
Series DV1000 · 3000 · 4000 Base Mounted Type Effective Orifice and Reponse Time

Type	Valve Model	Port Size		Configuration		Operating Pressure Range Mpa (psi)	Effective Orifice (mm ²) (Cv)	Response Time(ms)		Weight · g(oz)
		P, R1, R2	A, B					H, V	G, D, DZ	
DV1140-O-M5	DV 1140	Rc(PT)/NPT 1/8"	Rc(PT)/NPT M5×0.8 10-32 UNF	2	Single	0.15~0.70 (20~100)	4.0 (0.22)	~12	-	46(1.62)
DV1240-O-M5	DV 1240				Double	0.10~0.70 (14~100)	4.0 (0.22)	~10	-	58(2.05)
DV1340-O-M5	DV 1340			3	Closed Center	0.20~0.70 (27~100)	3.6 (0.20)	~16	-	62(2.19)
DV1440-O-M5	DV 1440				Exhaust Center	0.20~0.70 (27~100)	3.6 (0.20)	~16	-	62(2.19)
DV1540-O-M5	DV 1540				Pressure Center	0.20~0.70 (27~100)	3.8 (0.21)	~16	-	62(2.19)
DV3140-O-M5	DV 3140	Rc(PT)/NPT 1/4"	Rc(PT)/NPT 1/8"	2	Single	0.15~0.70 (20~100)	9.5 (0.53)	~18	~26	92(3.24)
DV3240-O-M5	DV 3240				Double	0.10~0.70 (14~100)	9.5 (0.53)	~18	~22	106(3.74)
DV3340-O-M5	DV 3340			3	Closed Center	0.20~0.70 (27~100)	7.2 (0.40)	~32	~38	114(4.02)
DV3440-O-M5	DV 3440				Exhaust Center	0.20~0.70 (27~100)	7.2 (0.40)	~32	~38	114(4.02)
DV3540-O-M5	DV 3540				Pressure Center	0.20~0.70 (27~100)	10.0 (0.55)	~32	~38	114(4.02)
DV4140-O-M5	DV 4140	Rc(PT)/NPT 3/8"	Rc(PT)/NPT 1/4"	2	Single	0.15~0.70 (20~100)	16.2 (0.90)	~30	~38	80(2.8)
DV4240-O-M5	DV 4240				Double	0.10~0.70 (14~100)	16.2 (0.90)	~30	~30	96(3.4)
DV4340-O-M5	DV 4340			3	Closed Center	0.20~0.70 (27~100)	10.8 (0.60)	~50	~56	104(3.67)
DV4440-O-M5	DV 4440				Exhaust Center	0.20~0.70 (27~100)	10.8 (0.60)	~50	~56	104(3.67)
DV4540-O-M5	DV 4540				Pressure Center	0.20~0.70 (27~100)	17.1 (0.96)	~50	~56	104(3.67)

Series DV1000

Construction / Body Ported type

2 Position Single

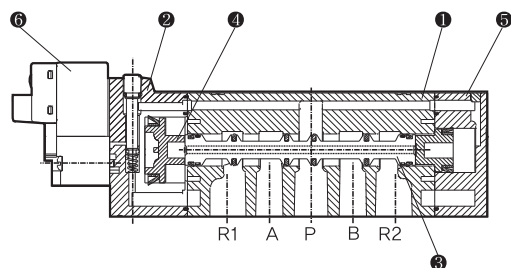


Main parts

No.	Description	Material	Note
1	Body	Aluminum die cast	(DV4000Aluminum Die Cast)
2	Adapter plate	Resin	
3	Spool	Aluminum	
4	Piston	Resin	
5	End cover	Resin	
6	Solenoid ass'y	—	
7-1	Port Plug Ass'y	—	Standard
7-2			Fitting Type

Construction / Base mounted type

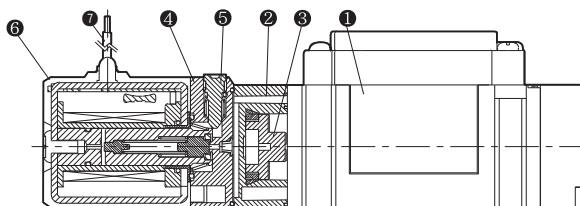
2 Position Single



Main parts

No.	Description	Material	Note
1	Body	Aluminum die cast	(DV4000Aluminum Die Cast)
2	Adapter plate	Resin	
3	Spool	Aluminum	
4	Piston	Resin	
5	End cover	Resin	
6	Solenoid ass'y	—	

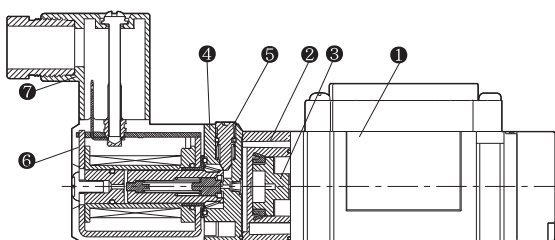
Construction / Grommet type



Main parts

No.	Description	Material	Note
1	Body	—	DV3000/DV4000 SERIES
2	Adapter plate	Resin	
3	Piston	Resin	
4	Pilot body	Resin	
5	Manual	Resin	
6	Solenoid coil	—	
7	Lead wire	—	

Construction / Din terminal type



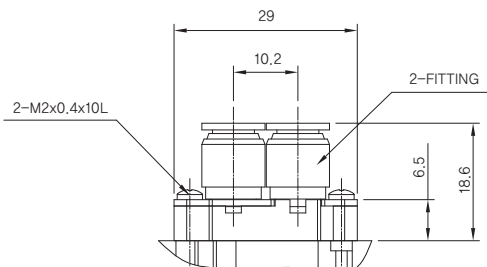
Main parts

No.	Description	Material	Note
1	Body	—	DV3000/DV4000 SERIES
2	Adapter plate	Resin	
3	Piston	Resin	
4	Pilot body	Resin	
5	Manual	Resin	
6	Solenoid coil	—	
7	Din connector ass'y	—	mpm

Series DV1000

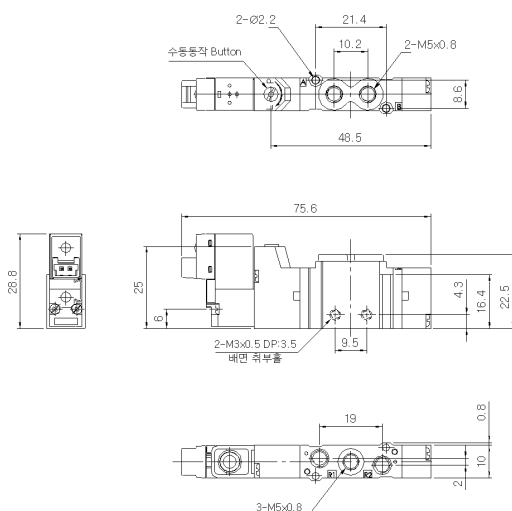
Series DV1000 / 2 Position / H: Horizontal Connector Type

DV1000 Fitting Included Dimension Drawing(Body Ported Type)

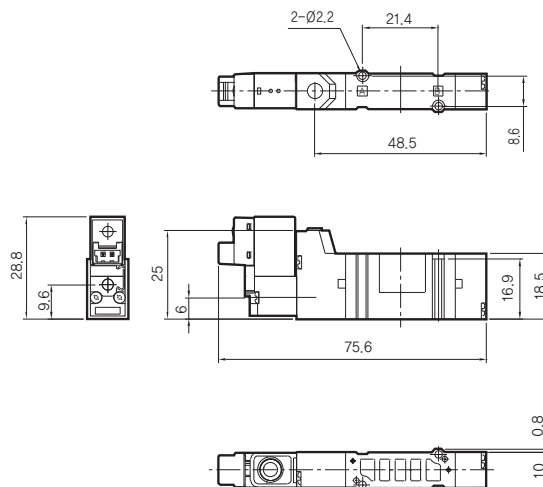


※The other options same as DV1000 standard type(Body ported type)

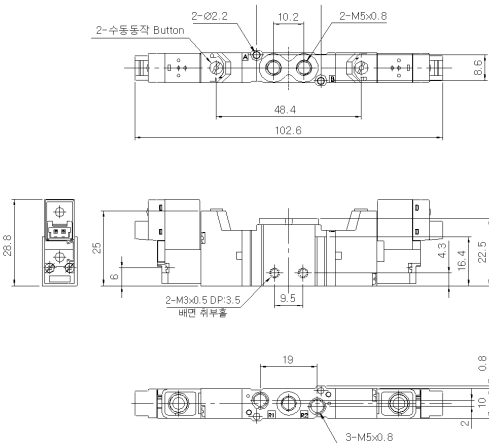
DV1120 Single / Body Ported Type



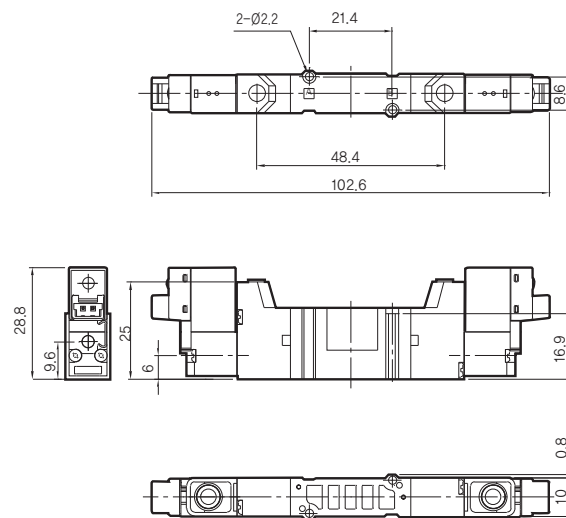
DV1140 Single / Base Mounted Type



DV1220 Double / Body Ported Type



DV1240 Double / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

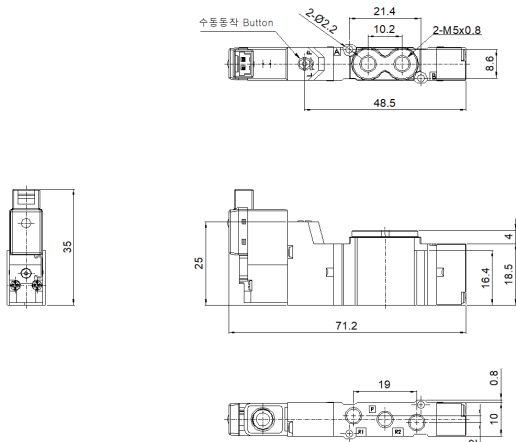
DT220

Series DV1000

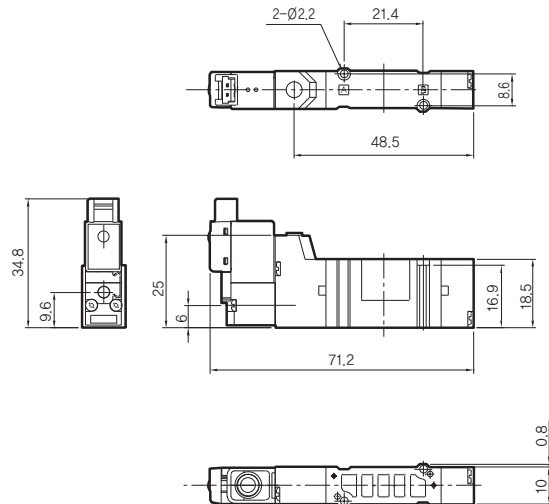
Series DV1000 / 2 Position / V: Vertical Connector Type

(Unit:mm)

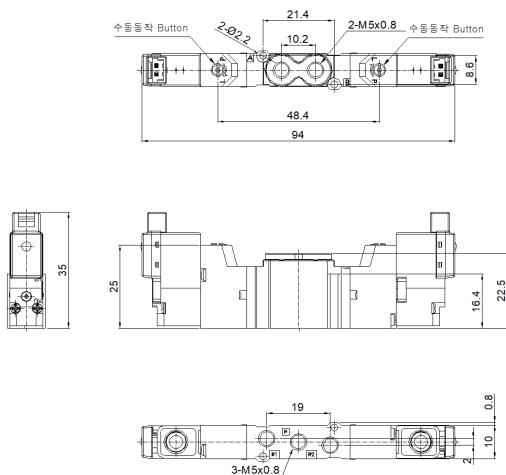
DV1120 Single / Body Ported Type



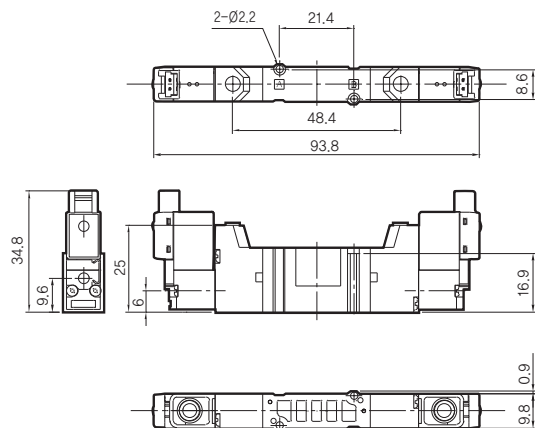
DV1140 Single / Base Mounted Type



DV1220 Double / Body Ported Type



DV1240 Double / Base Mounted Type

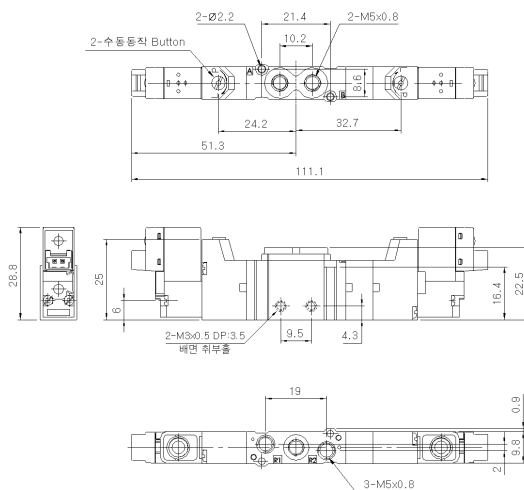


Series DV1000

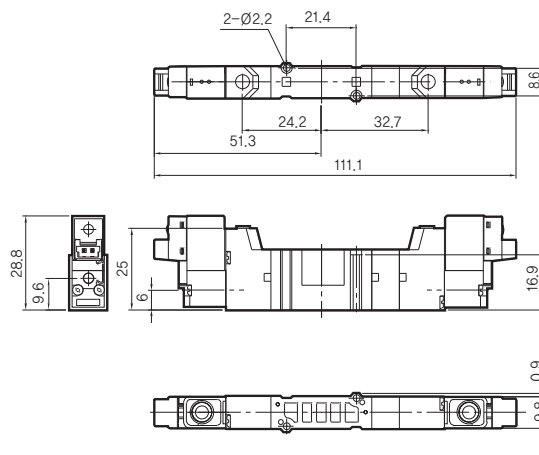
Series DV1000 / 3 Position / H: Horizontal Connector Type

(Unit:mm)

DV1320/1420/1520 3 Position / Body Ported Type



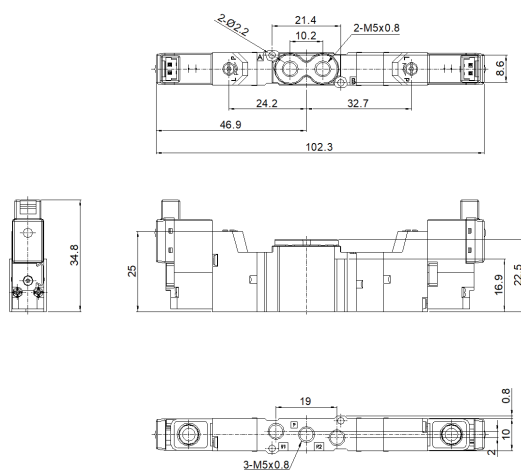
DV1340/1440/1540 3 Position / Base Mounted Type



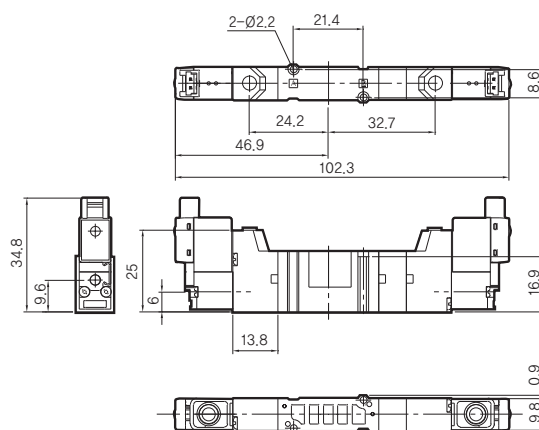
Series DV1000 / 3 Position / V: Vertical Connector Type

(Unit:mm)

DV1320/1420/1520 3 Position / Body Ported Type



DV1340/1440/1540 3 Position / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

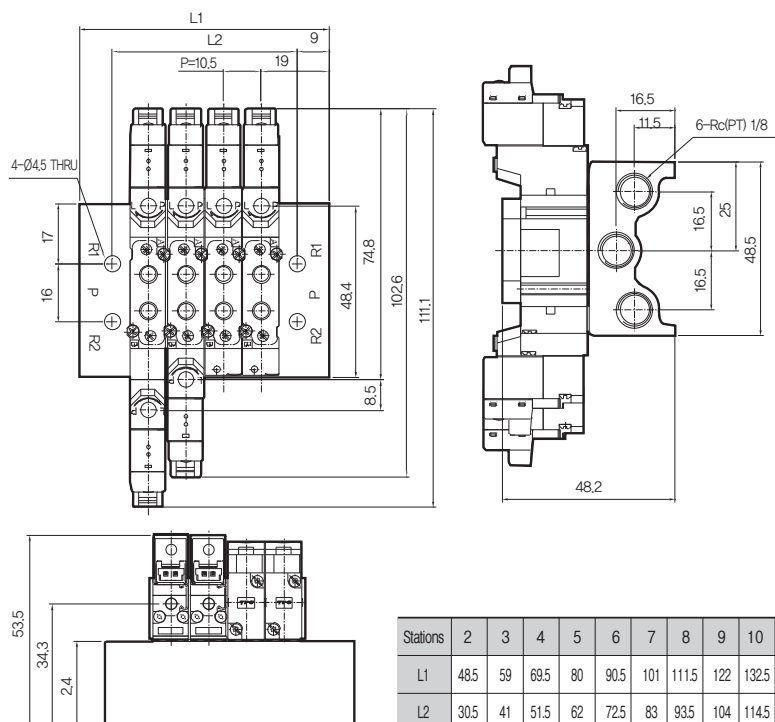
DP300
DP3000
DP5000

DM

DT220

Series DV1000

Manifold Dimensions / Series DV1000 (Body Ported) / H: Horizontal Connector Type



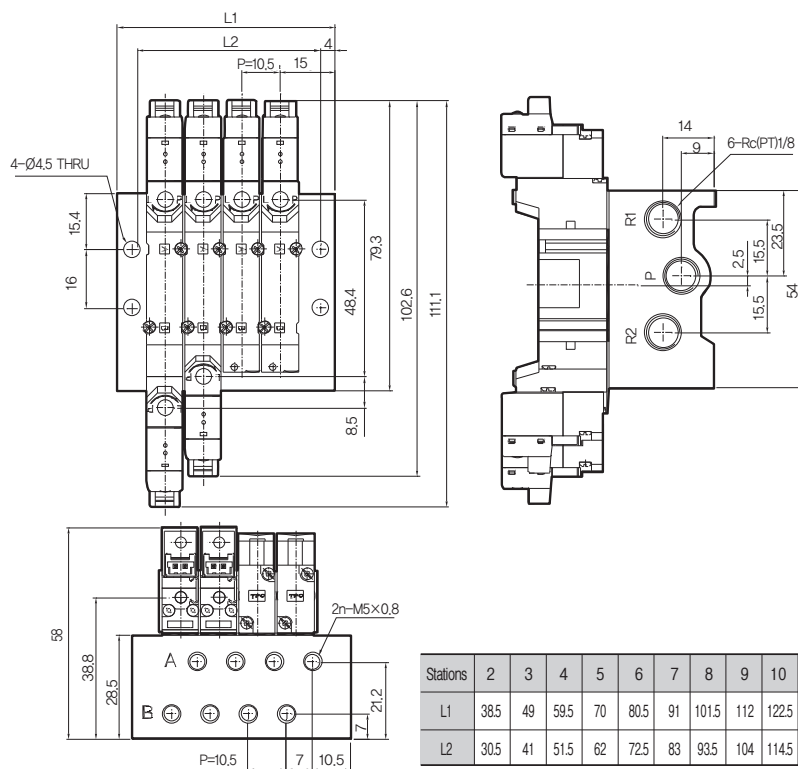
How to order

DVM1 — 20 — 05

- ☐ 1 DV1000 Manifold
☐ 2 Body Ported Type
☐ 3 Stations (2~20)

	(mm)																		
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	485	59	69.5	80	90.5	101	111.5	122	132.5	143	153.5	164	174.5	185	195.5	206	216.5	227	237.5
L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

Manifold Dimensions / Series DV1000 (Base Mounted) / H: Horizontal Connector Type



How To Order

DVM1 — 40 — 05

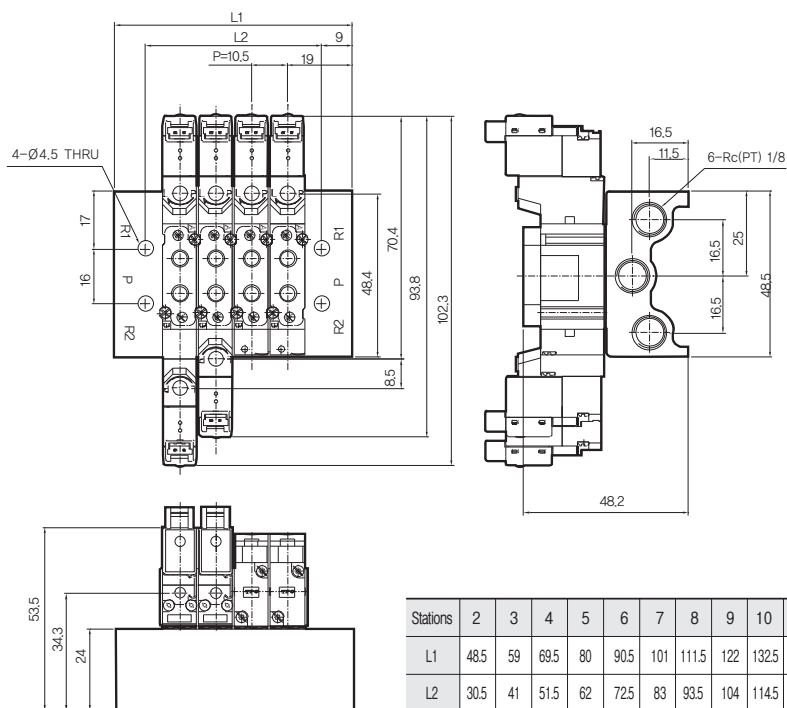
- ① DV1000 Manifold
- ② Base Mounted type
- ③ Stations (2~20)

	(mm)																		
Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	385	49	59.5	70	80.5	91	101.5	112	122.5	133	143.5	154	164.5	175	185.5	196	206.5	217	227.5
L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

Series DV1000

Dimensions / Series DV1000 (Body Ported) / V: Vertical Connector Type

(Unit:mm)



How To Order

DVM1 — 20 — 05

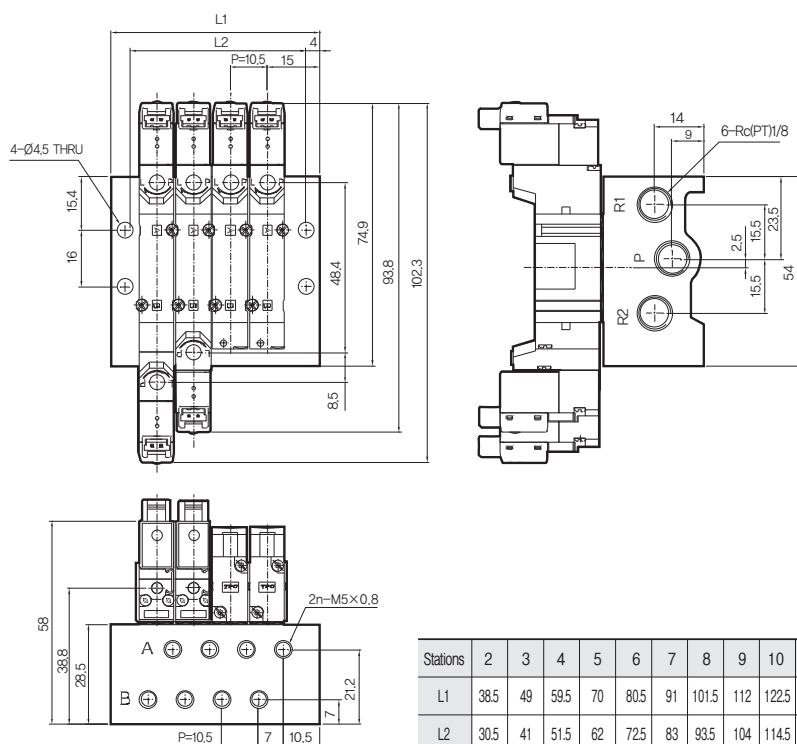
1 2 3

- 1 DV1000 Manifold
- 2 Body Ported Type
- 3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	48.5	59	69.5	80	90.5	101	111.5	122	132.5	143	153.5	164	174.5	185	195.5	206	216.5	227	237.5
L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

Dimensions / Series DV1000 (Base Mounted) / V: Vertical Connector Type

(Unit:mm)



How To Order

DVM1 — 40 — 05

1 2 3

- 1 DV1000 Manifold
- 2 Base Mounted type
- 3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	38.5	49	59.5	70	80.5	91	101.5	112	122.5	133	143.5	154	164.5	175	185.5	196	206.5	217	227.5
L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

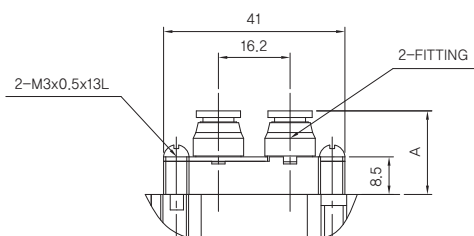
DT220

Series DV3000

Series DV3000 / 2 Position / H: Horizontal Connector Type

(Unit:mm)

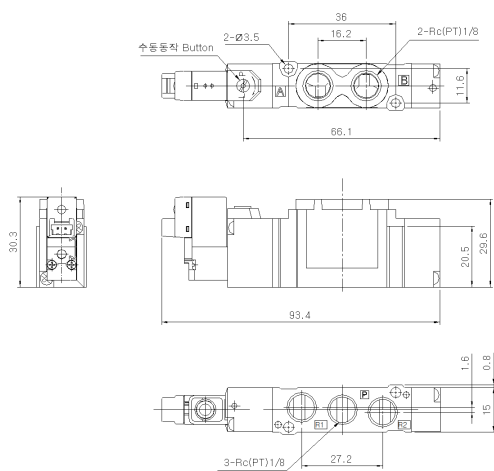
DV3000 Fitting Included Dimension Drawing(Body Ported Type)



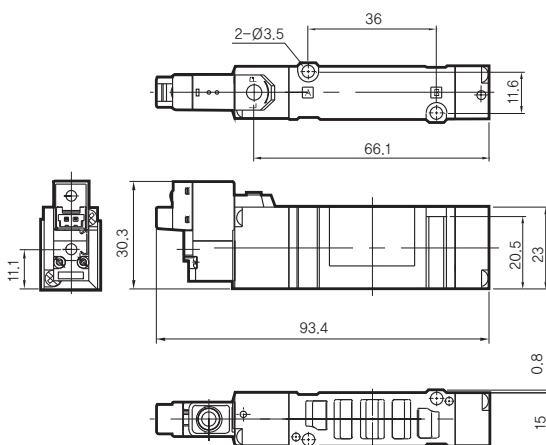
※The other options same as DV3000 standard type(Body ported type)

Series	Applicable Fitting Size	A	Note
DV3000	Ø4	18.9	
	Ø6	24	
	Ø8	24.8	

DV3120 Single / Body Ported Type

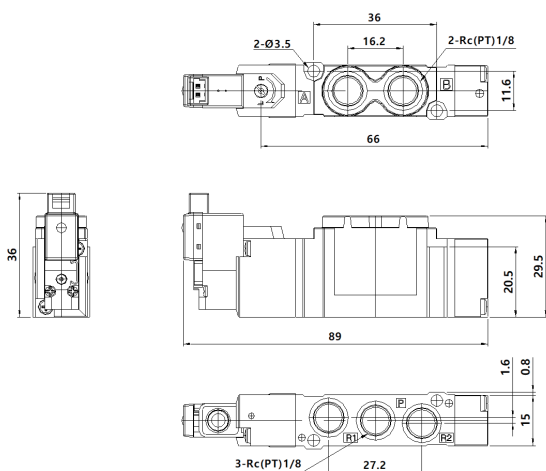


DV3140 Single / Base Mounted Type

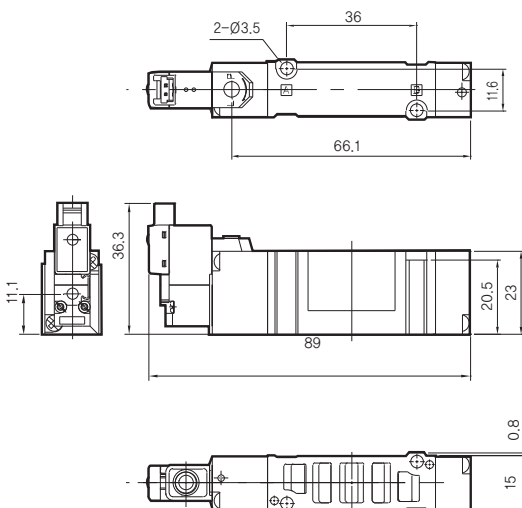


Series DV3000 / 2 Position / V: Vertical Connector Type

DV3120 Single / Body Ported Type



DV3140 Single / Base Mounted Type

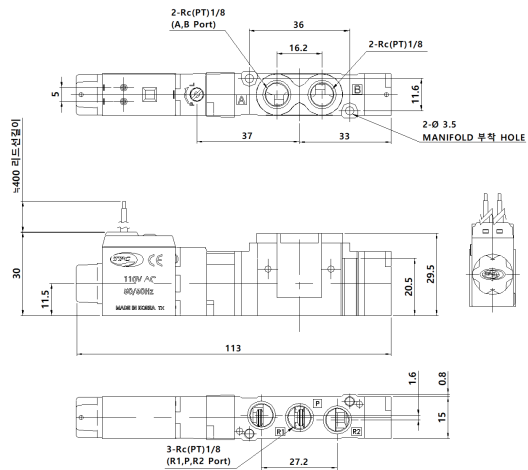


Series DV3000

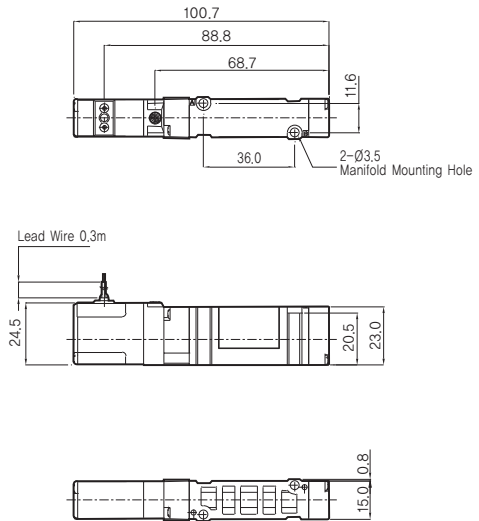
Series DV3000 / 2 Position / Grommet Type

(Unit:mm)

DV3120 Single / Body Ported Type



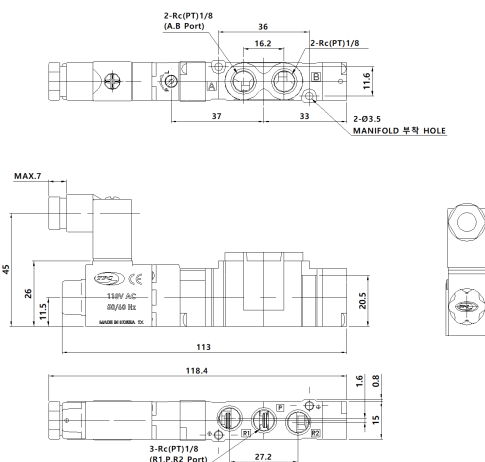
DV3140 Single / Base Mounted Type



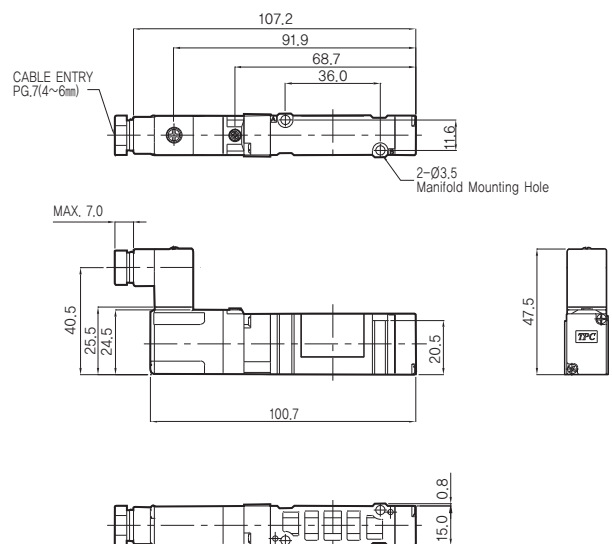
Series DV3000 / 2 Position / Din Terminal Type

(Unit:mm)

DV3120 Single / Body Ported Type



DV3140 Single / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

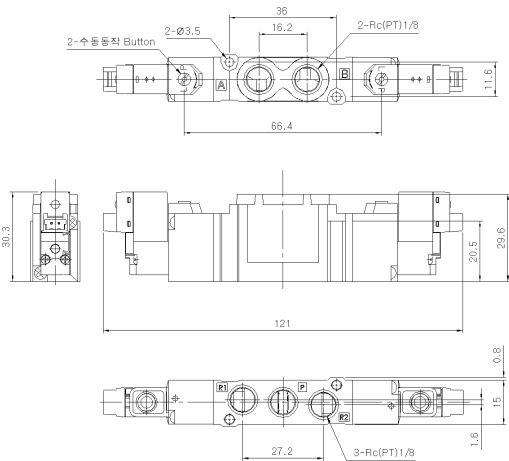
DT220

Series DV3000

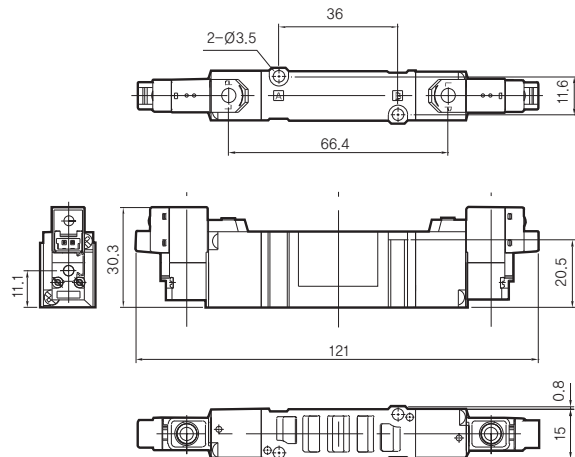
Series DV3000 / 2 Position / H: Horizontal Connector Type

(Unit:mm)

DV3220 Double / Body Ported Type



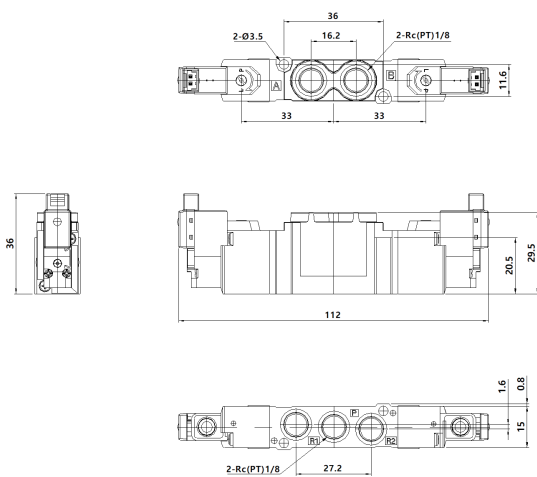
DV3240 Double / Base Mounted Type



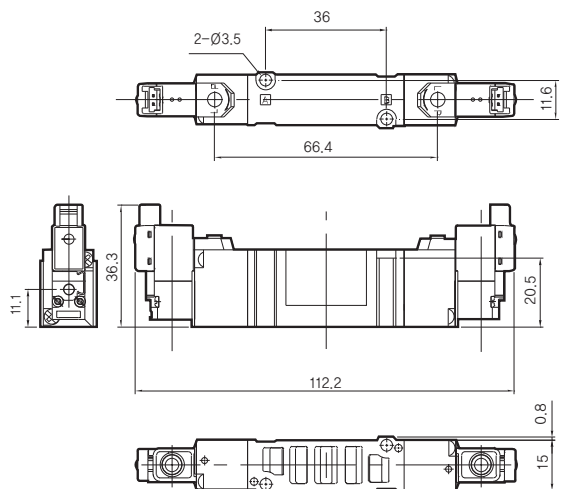
Series DV3000 / 2 Position / V: Vertical Connector Type

(Unit:mm)

DV3220 Double / Body Ported Type



DV3240 Double / Base Mounted Type

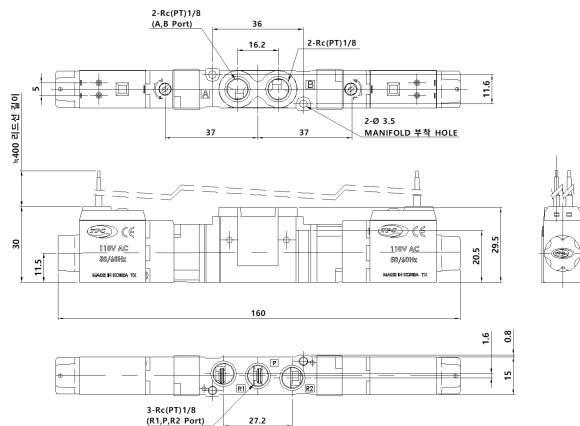


Series DV3000

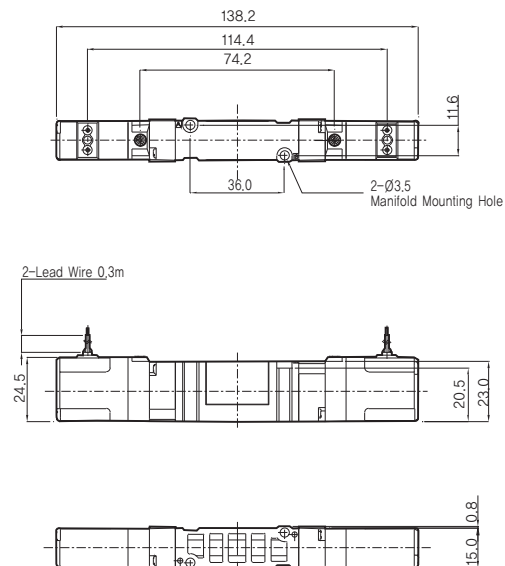
Series DV3000 / 2 Position / Grommet Type

(Unit:mm)

DV3220 Double / Body Ported Type



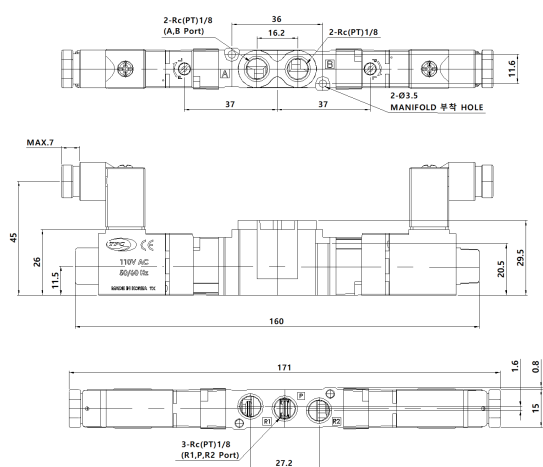
DV3240 Double / Base Mounted Type



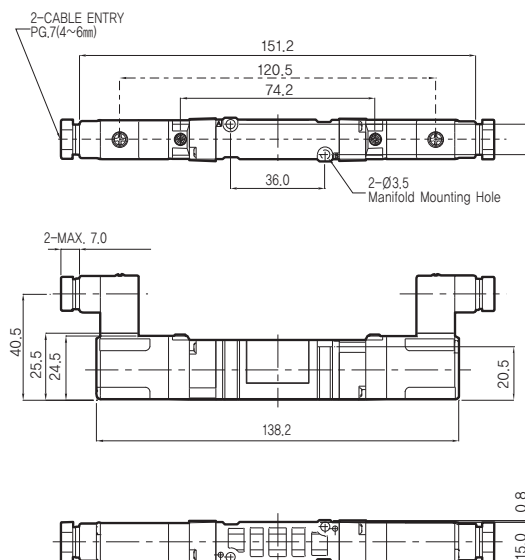
Series DV3000 / 2 Position / Din Terminal Type

(Unit:mm)

DV3220 Double / Body Ported Type



DV3240 Double / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

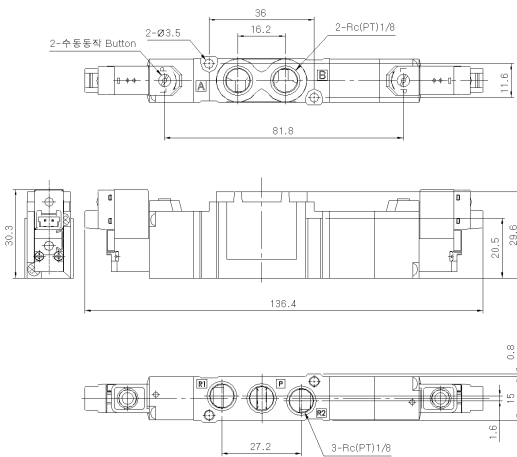
DT220

Series DV3000

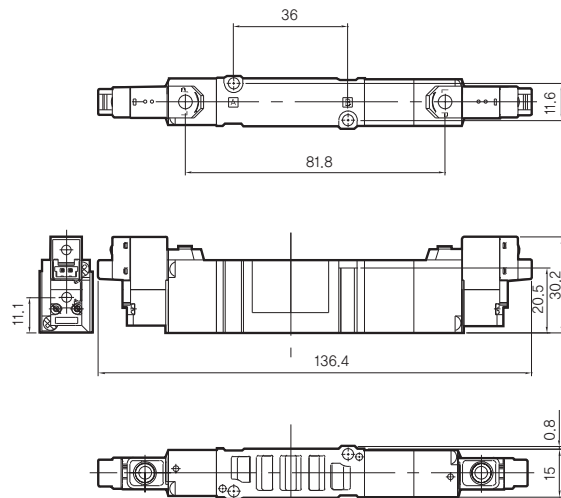
Series DV3000 / 3 Position / H: Horizontal Connector Type

(Unit:mm)

DV3320/3420/3520 3 Position / Body Ported Type



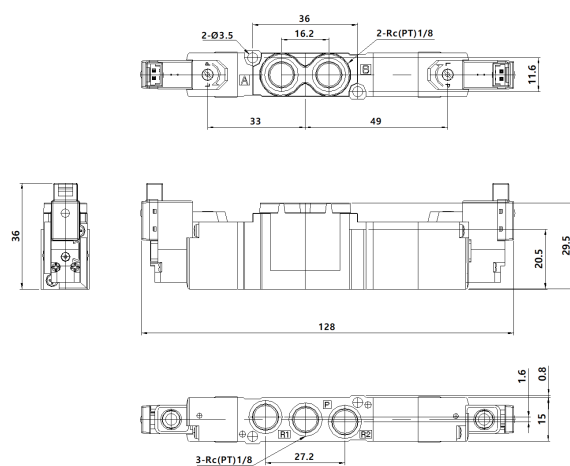
DV3340/3440/3540 3 Position / Base Mounted Type



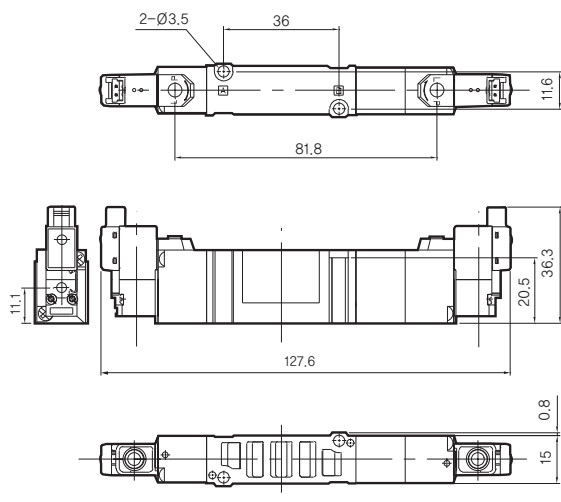
Series DV3000 / 3 Position / V: Vertical Connector Type

(Unit:mm)

DV3320/3420/3520 3 Position / Body Ported Type



DV3340/3440/3540 3 Position / Base Mounted Type

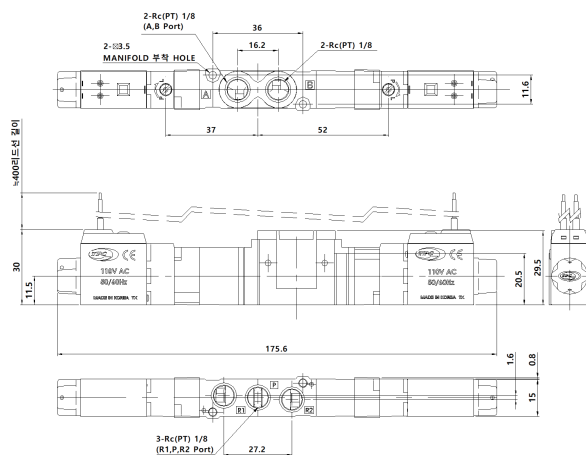


Series DV3000

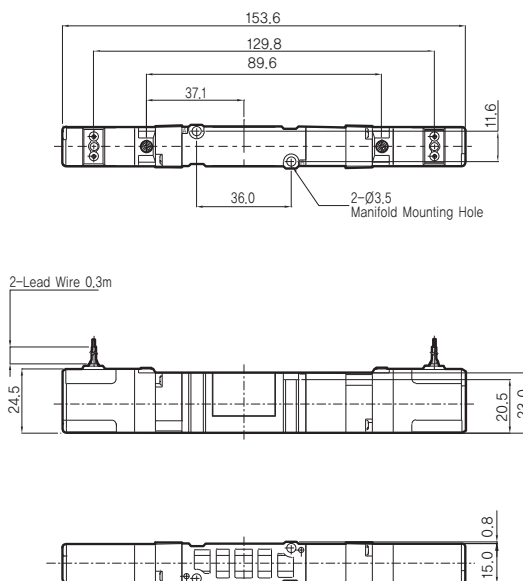
Series DV3000 / 3 Position / Grommet Type

(Unit:mm)

DV3320/3420/3520 3 Position / Body Ported Type



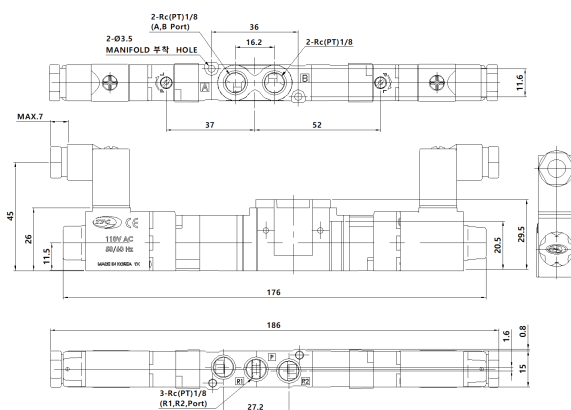
DV3340/3440/3540 3 Position / Base Mounted Type



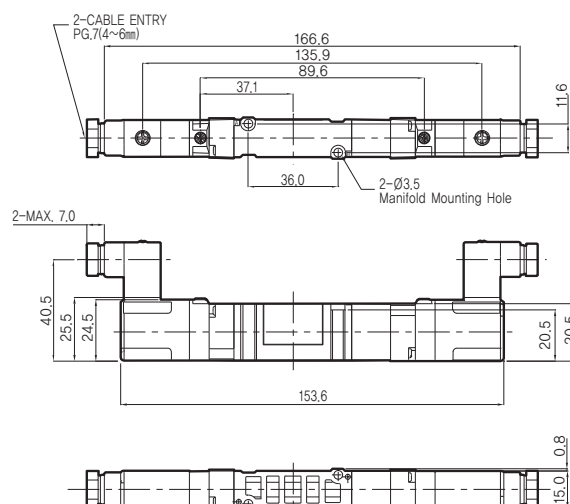
Series DV3000 / 3 Position / Din Terminal Type

(Unit:mm)

DV3320/3420/3520 3 Position / Body Ported Type



DV3340/3440/3540 3 Position / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

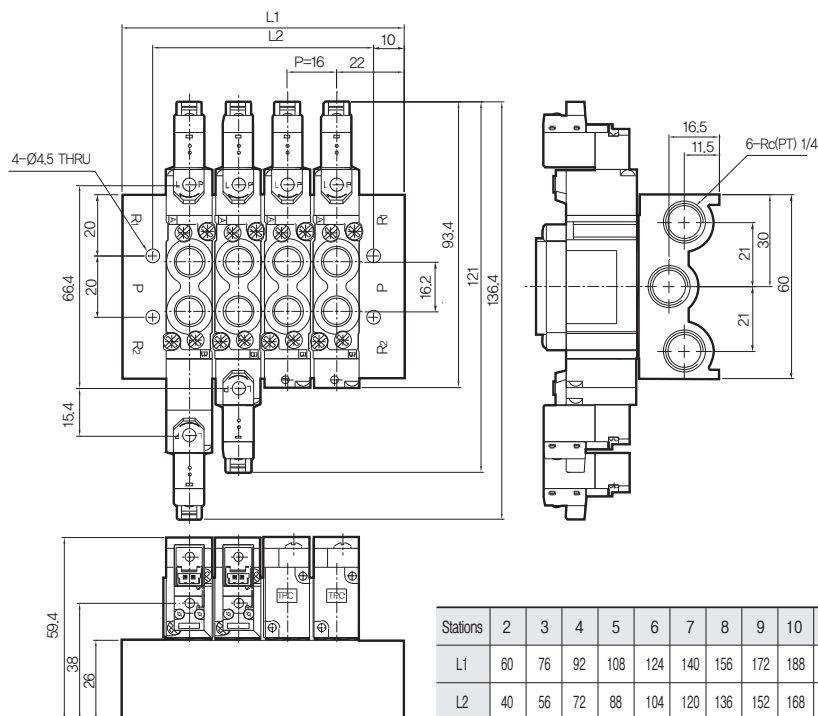
DM

DT220

Series DV3000

Manifold Dimensions / Series DV3000 Body Ported / H: Horizontal Connector Type

(Unit:mm)



How To Order

DVM3 — **20** — **05**

1

2

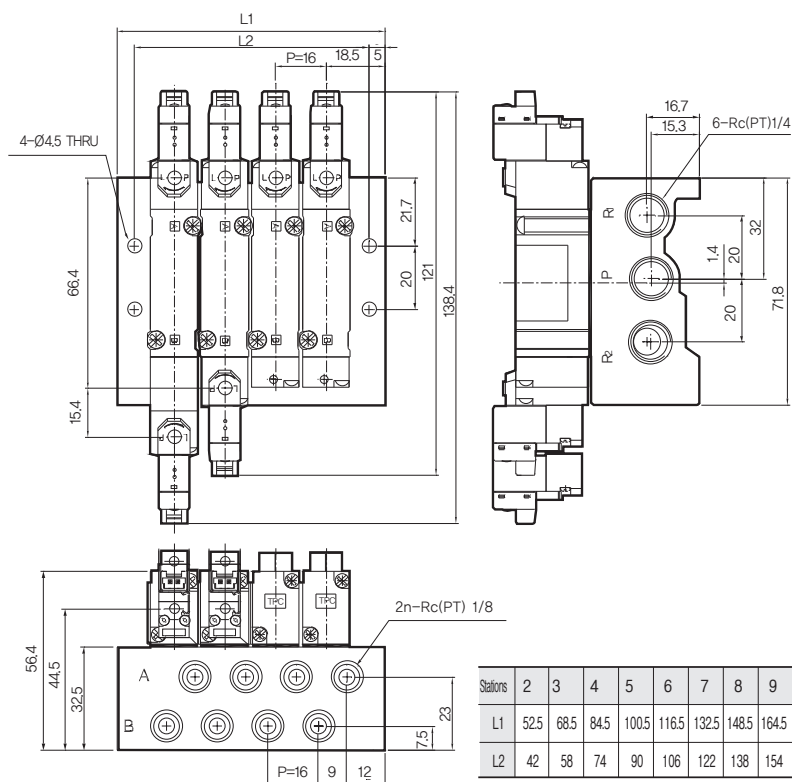
3

- 1 DV3000 Manifold
2 Body Ported Type
3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332	348
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

Manifold Dimensions / Series DV3000 Base Mounted / H: Horizontal Connector Type

(Unit:mm)



How To Order

DVM3 — **40** — **05**

1

2

3

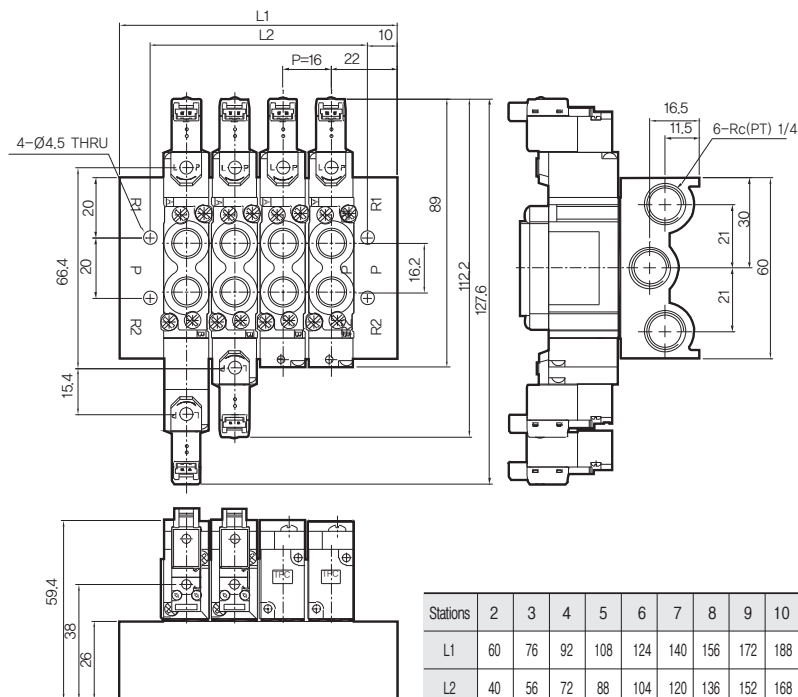
- 1 DV3000 Manifold
2 Base Mounted Type
3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52.5	68.5	84.5	100.5	116.5	132.5	148.5	164.5	180.5	196.5	212.5	228.5	244.5	260.5	276.5	292.5	308.5	324.5	340.5
L2	42	58	74	90	106	122	138	154	170	188	202	218	234	250	266	282	298	314	330

Series DV3000

Manifold Dimensions / Series DV3000 Body Ported / V: Vertical Connector Type

(Unit:mm)



How To Order

DVM3 — **20** — **05**

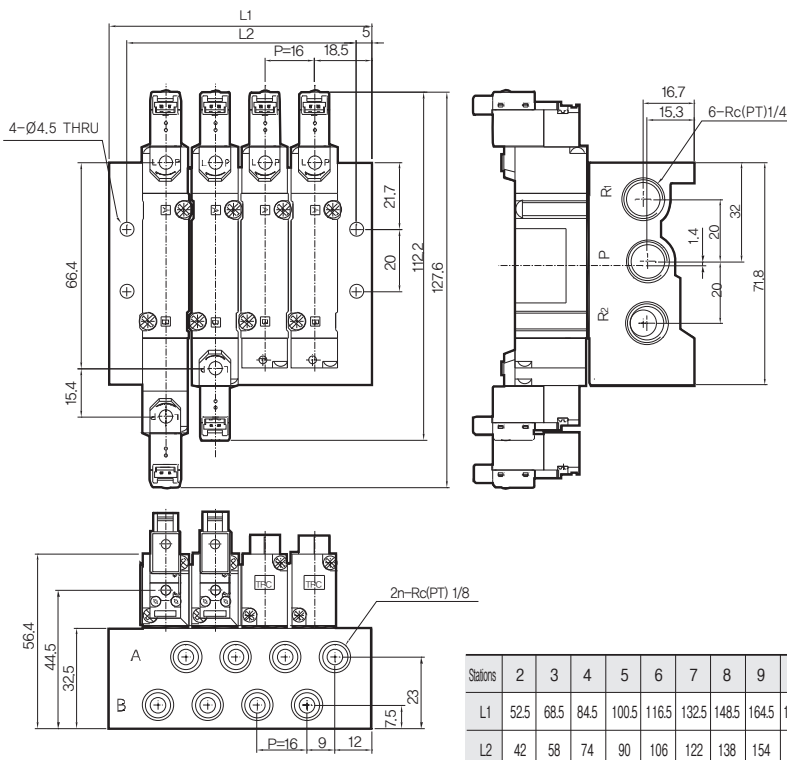
1 2 3

- 1 DV3000 Manifold
- 2 Body Ported Type
- 3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332	348
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

Manifold Dimensions / Series DV3000 Base Mounted / V: Vertical Connector Type

(Unit:mm)



How To Order

DVM3 — **40** — **05**

1 2 3

- 1 DV3000 Manifold
- 2 Base Mounted Type
- 3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52.5	68.5	84.5	100.5	116.5	132.5	148.5	164.5	180.5	196.5	212.5	228.5	244.5	260.5	276.5	292.5	308.5	324.5	340.5
L2	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

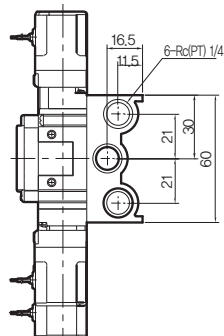
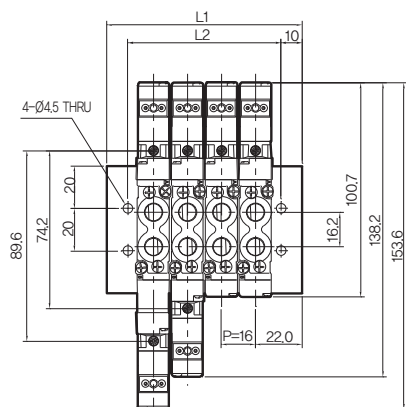
DM

DT220

Series DV3000

DV3000 Body Ported Manifold Dimensions / Grommet Type

(Unit: mm)

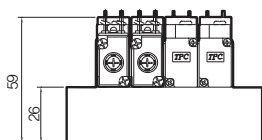


How To Order

DVM3 — **20** — **05**

1 2 3

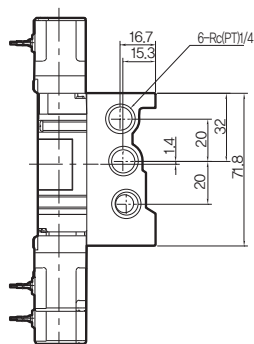
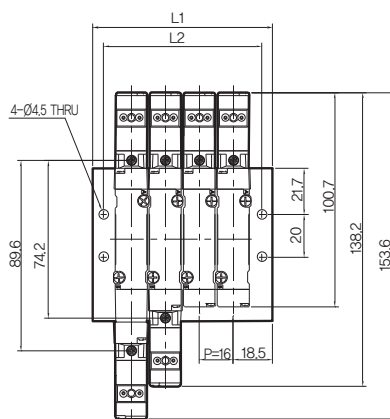
- 1 DV3000 Manifold
2 Body Ported Type
3 Stations (2~20)



Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332	348
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

DV3000 Base Mounted Manifold Dimensions / Grommet Type

(Unit: mm)

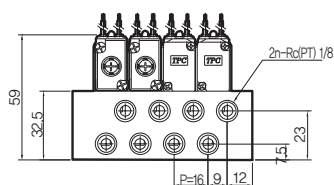


How To Order

DVM3 — **40** — **05**

1 2 3

- 1 DV3000 Manifold
2 Body Ported Type
3 Stations (2~20)

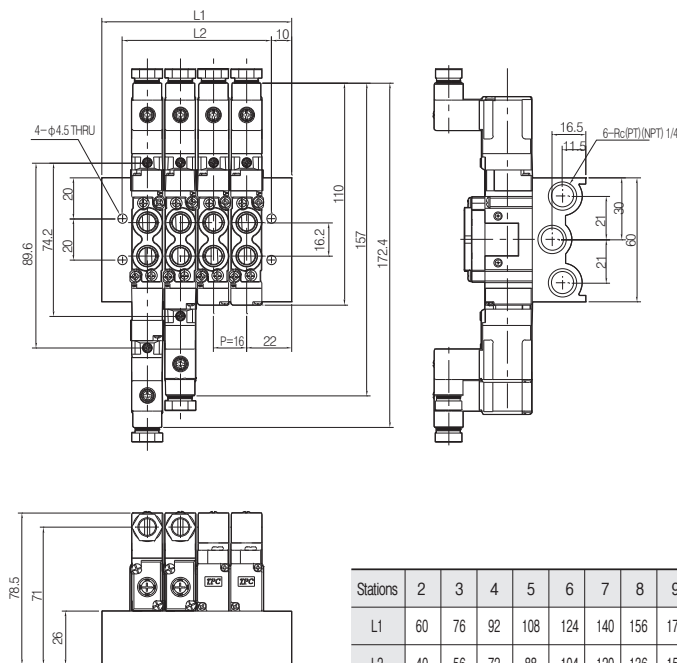


Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	52.5	68.5	84.5	100.5	116.5	132.5	148.5	164.5	180.5	196.5	212.5	228.5	244.5	260.5	276.5	292.5	308.5	324.5	340.5
L2	42	58	74	90	106	122	138	154	170	188	202	218	234	250	266	282	298	314	330

Series DV3000

Manifold Dimensions / Series DV3000 Body Ported / Din Terminal Type

(Unit:mm)



How To Order

DVM3 — **20** — **05**

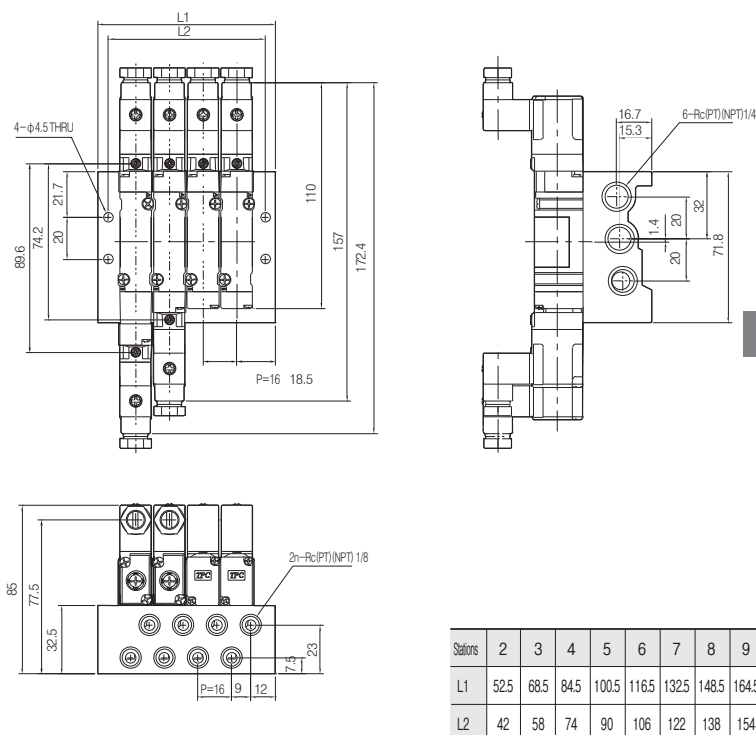
1 2 3

- 1 DV3000 Manifold
- 2 Body Ported Type
- 3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332	348
L2	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328

Manifold Dimensions / Series DV3000 Base Mounted / Din Terminal Type

(Unit:mm)



How To Order

DVM3 — **40** — **05**

1 2 3

- 1 DV3000 Manifold
- 2 Base Mounted Type
- 3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	525	685	845	1005	1165	1325	1485	1645	1805	1965	2125	2285	2445	2605	2765	2925	3085	3245	3405
L2	42	58	74	90	106	122	138	154	170	188	202	218	234	250	266	282	298	314	330

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

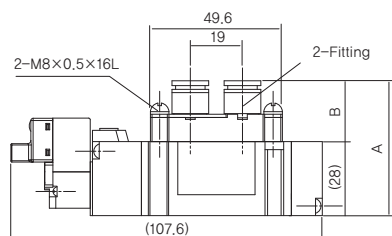
DT220

Series DV4000

Series DV4000 / 2 Position / H : Horizontal Connector Type

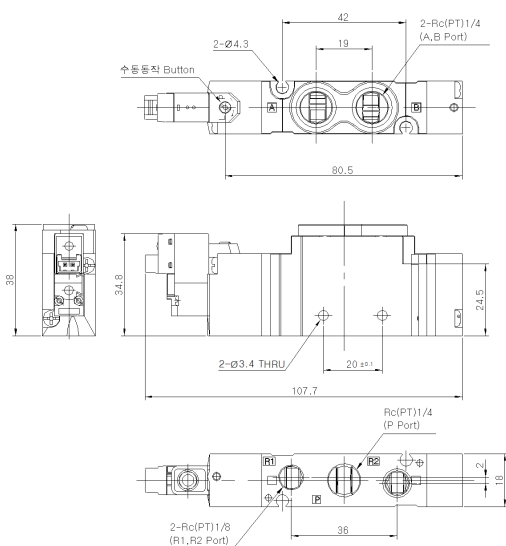
(Unit: mm)

DV4120 Single / Fitting Included Dimension Drawing(Body Ported Type)

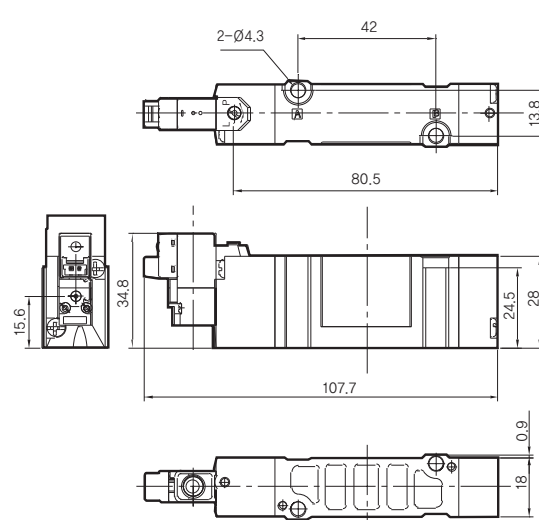


Series	Applicable Fitting Size	A	B	Note
DV4000	Ø8	54.1	26.1	
	Ø10	55.1	27.1	

DV4120 Single / Body Ported Type



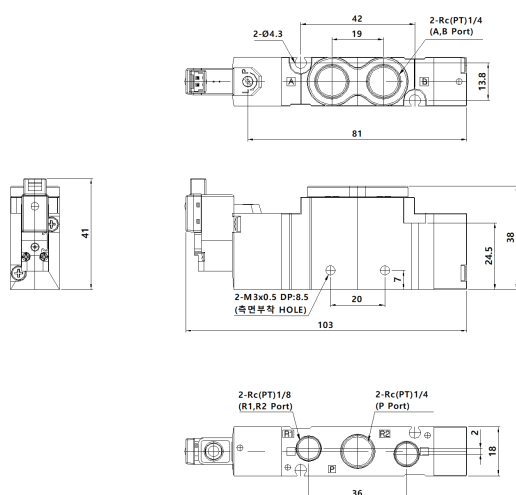
DV4140 Single / Base Mounted Type



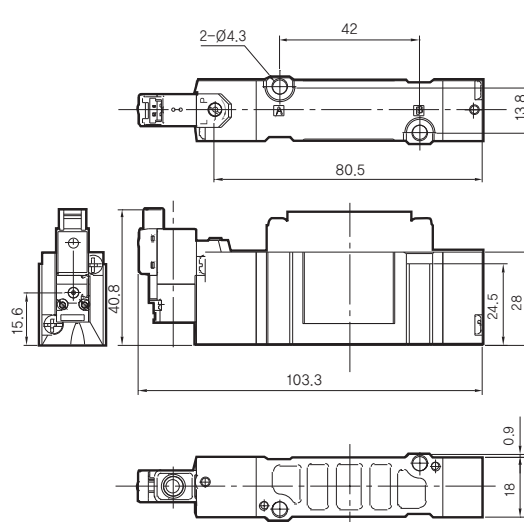
Series DV4000 / 2 Position / V : Vertical Connector Type

(Unit: mm)

DV4120 Single / Body Ported Type



DV4140 Single / Base Mounted Type

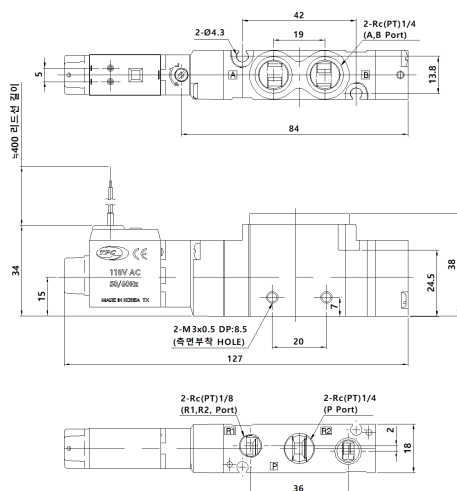


Series DV4000

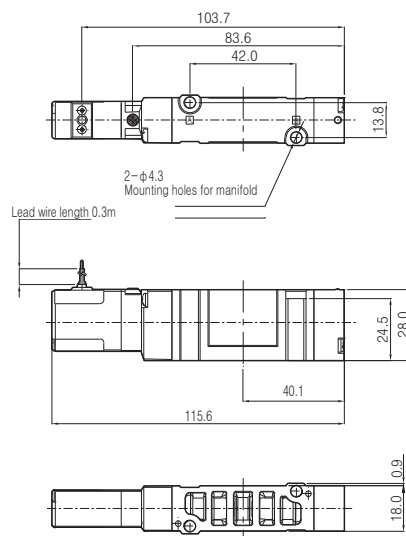
Series DV4000 / 2 Position / Grommet Type

(Unit:mm)

DV4120 Single / Body Ported Type



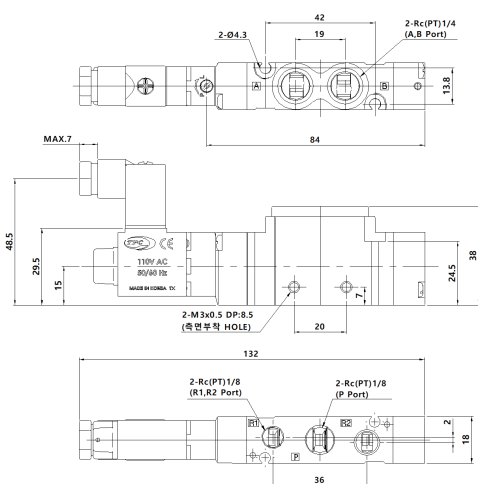
DV4140 Single / Base Mounted Type



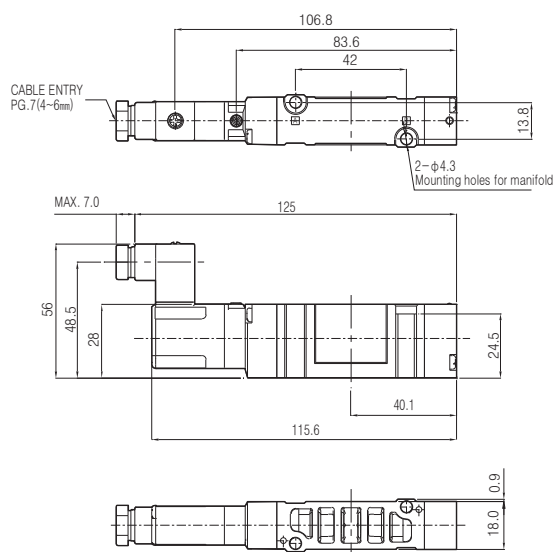
Series DV4000 / 2 Position / Din Terminal Type

(Unit:mm)

DV4120 Single / Body Ported Type



DV4140 Single / Base Mounted Type

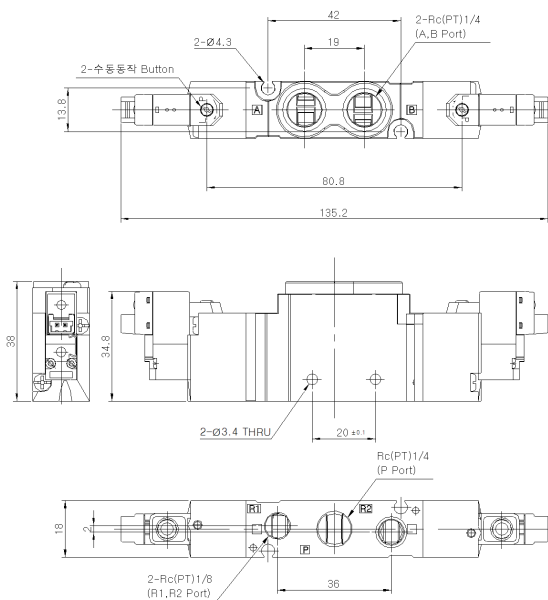


Series DV4000

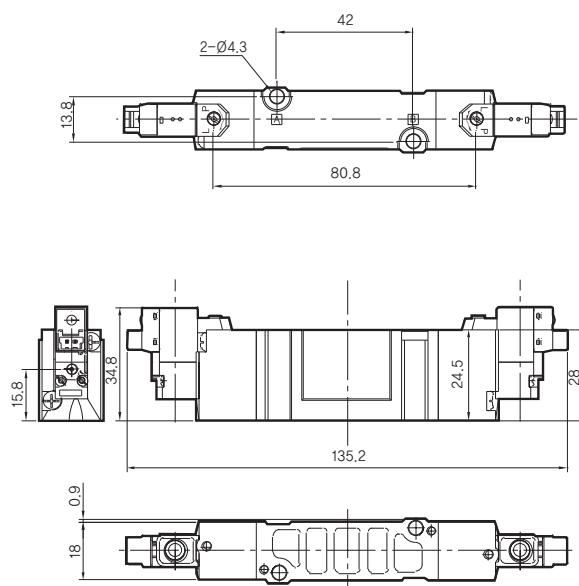
Series DV4000 / 2 Position / H: Horizontal Connector Type

(Unit:mm)

DV4220 Double / Body Ported Type



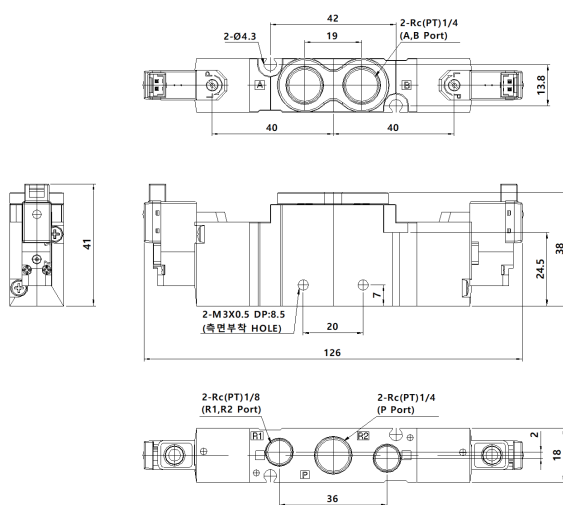
DV4240 Double / Base Mounted Type



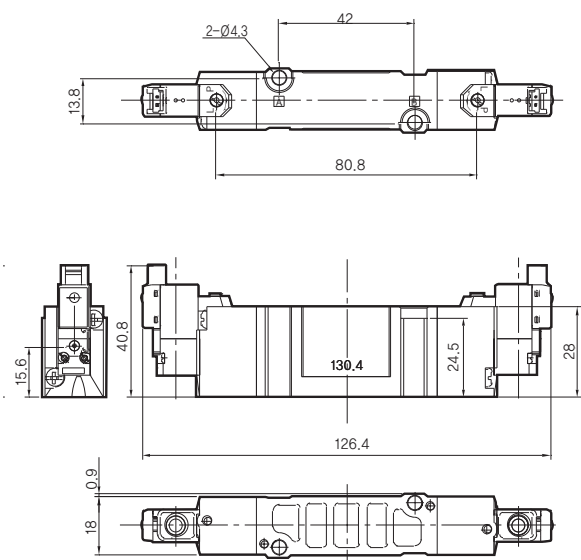
Series DV4000 / 2 Position / V: Vertical Connector Type

(Unit:mm)

DV4220 Double / Body Ported Type



DV4240 Double / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

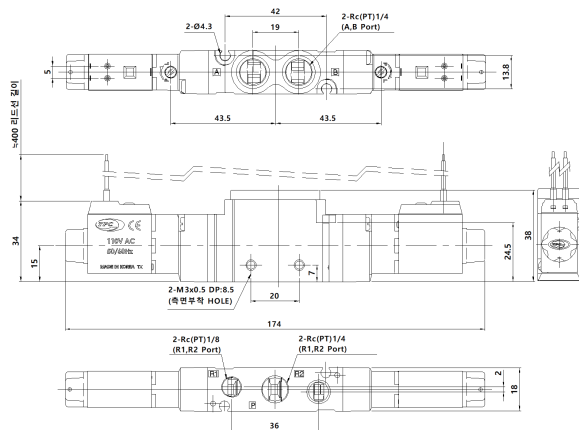
DT220

Series DV4000

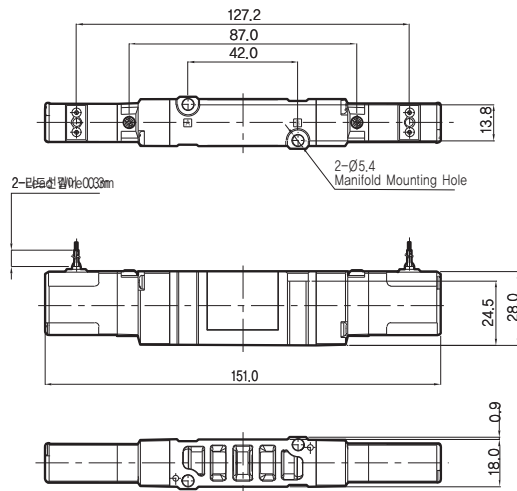
Series DV4000 / 2 Position / Grommet Type

(Unit:mm)

DV4220 Double / Body Ported Type



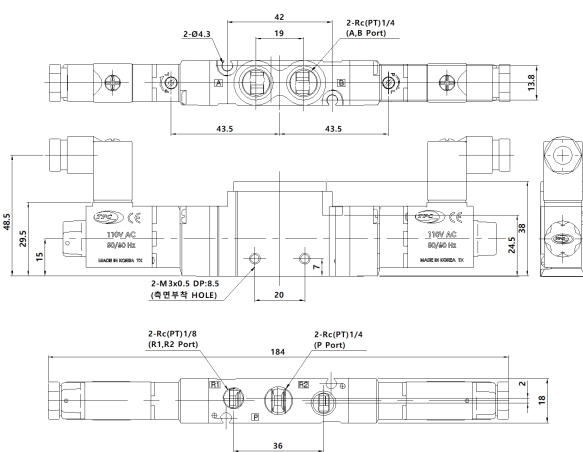
DV4240 Double / Base Mounted Type



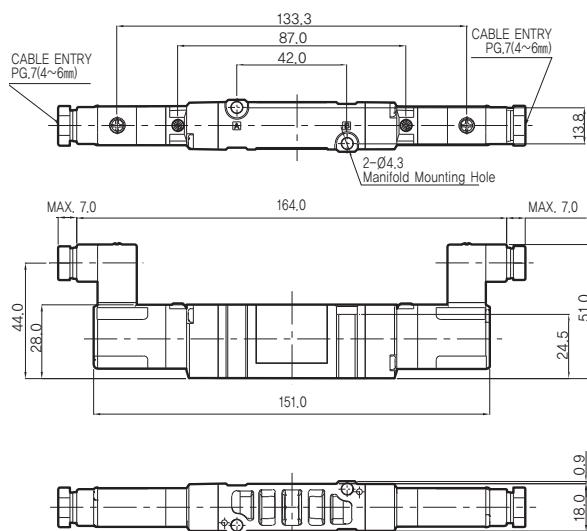
Series DV4000 / 2 Position / Din Terminal Type

(Unit:mm)

DV4220 Double / Body Ported Type



DV4240 Double / Base Mounted Type

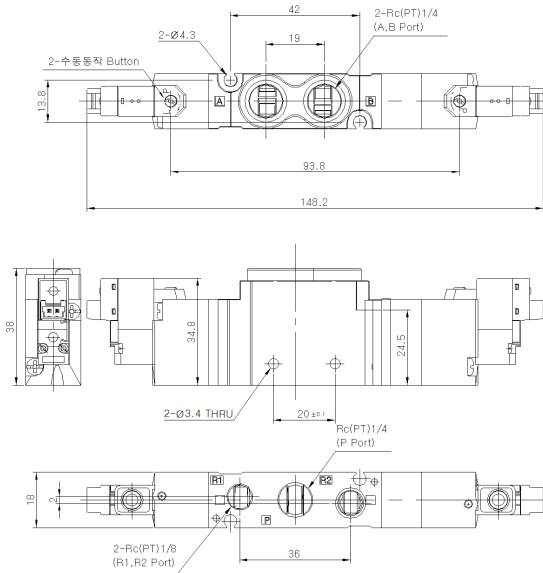


Series DV4000

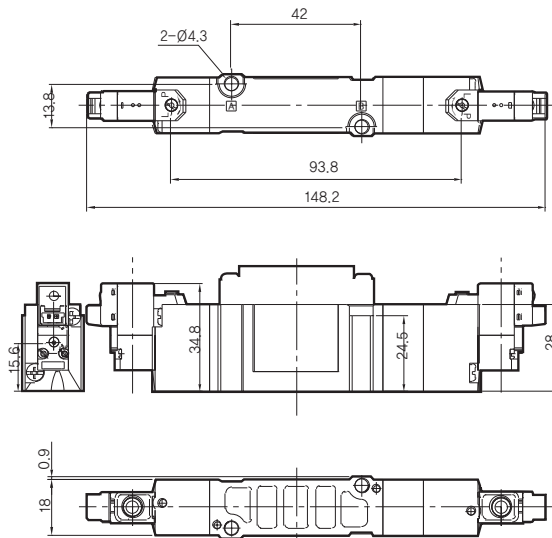
Series DV4000 / 3 Position / H: Horizontal Connector Type

(Unit:mm)

DV4320/4420/4520 3 Position / Body Ported Type



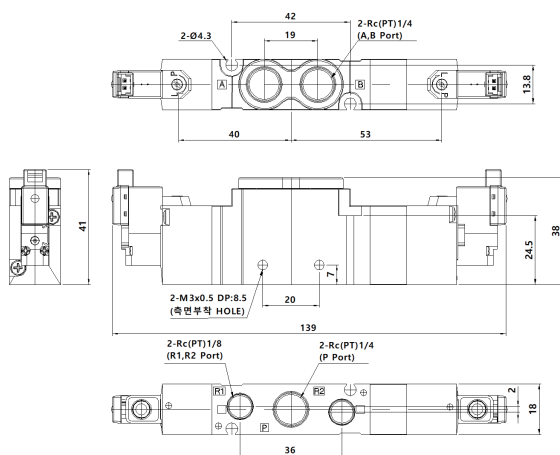
DV4340/4440/4540 3 Position / Base Mounted Type



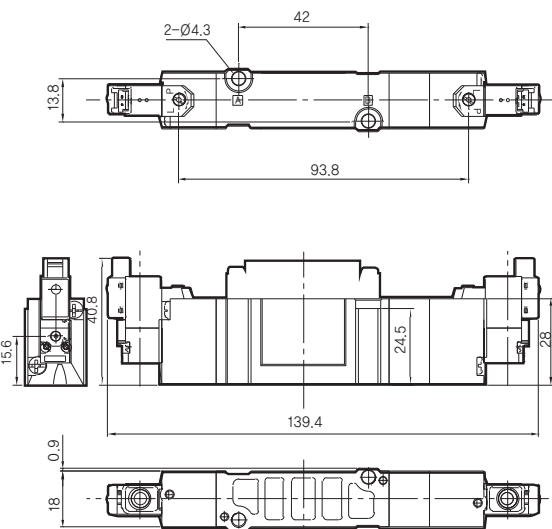
Series DV4000 / 3 Position / V: Vertical Connector Type

(Unit:mm)

DV4320/4420/4520 3 Position / Body Ported Type



DV4340/4440/4540 3 Position / Base Mounted Type



DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

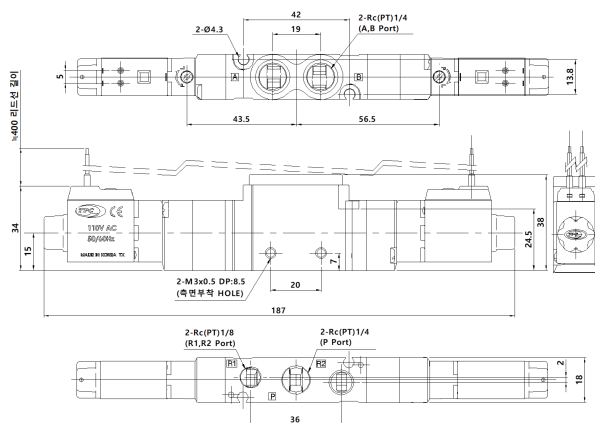
DT220

Series DV4000

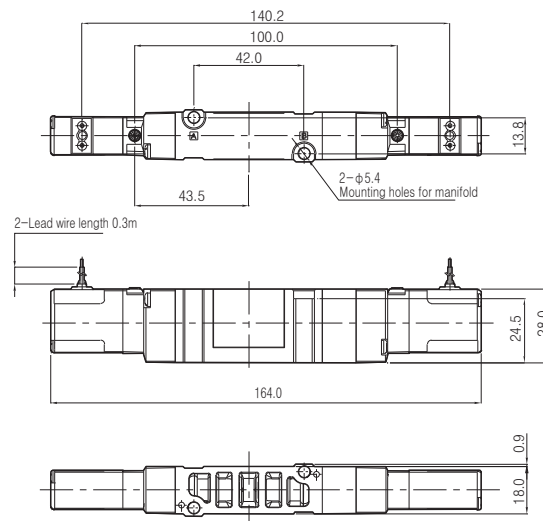
Series DV4000 / 3 Position / Grommet Type

(Unit: mm)

DV4320/4420/4520 3 Position / Body Ported Type



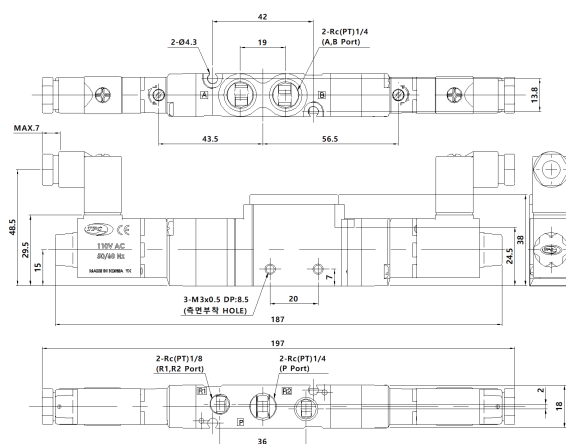
DV4340/4440/4540 3 Position / Base Mounted Type



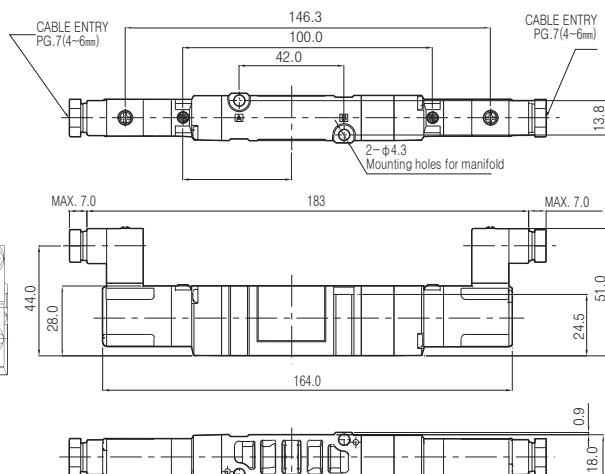
Series DV4000 / 3 Position / Din Terminal Type

(Unit: mm)

DV4320/4420/4520 3 Position / Body Ported Type



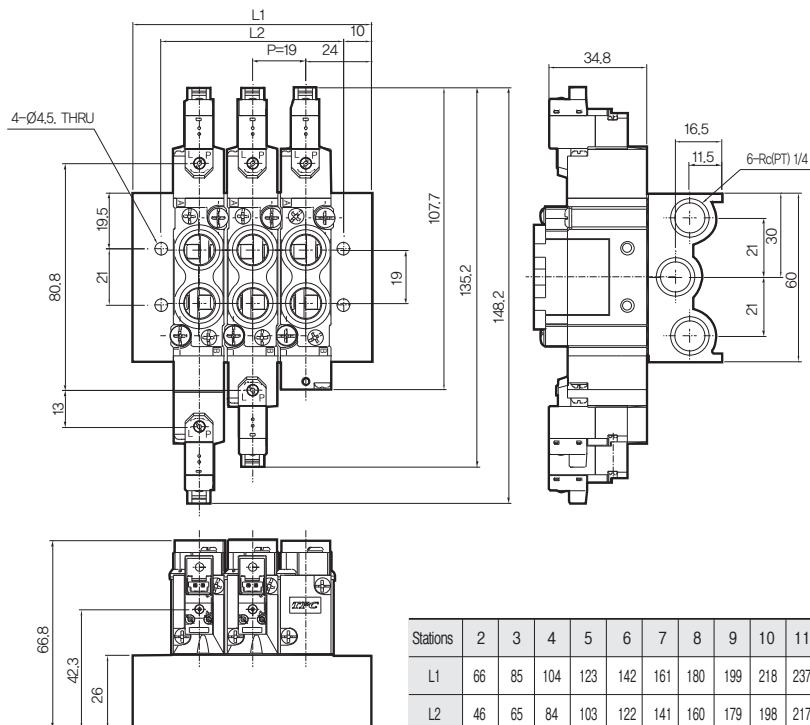
DV4340/4440/4540 3 Position / Base Mounted Type



Series DV4000

Manifold Dimensions / Series DV4000 Body Ported / H: Horizontal Connector Type

(Unit:mm)



How To Order

DVM4 — **20** — **05**

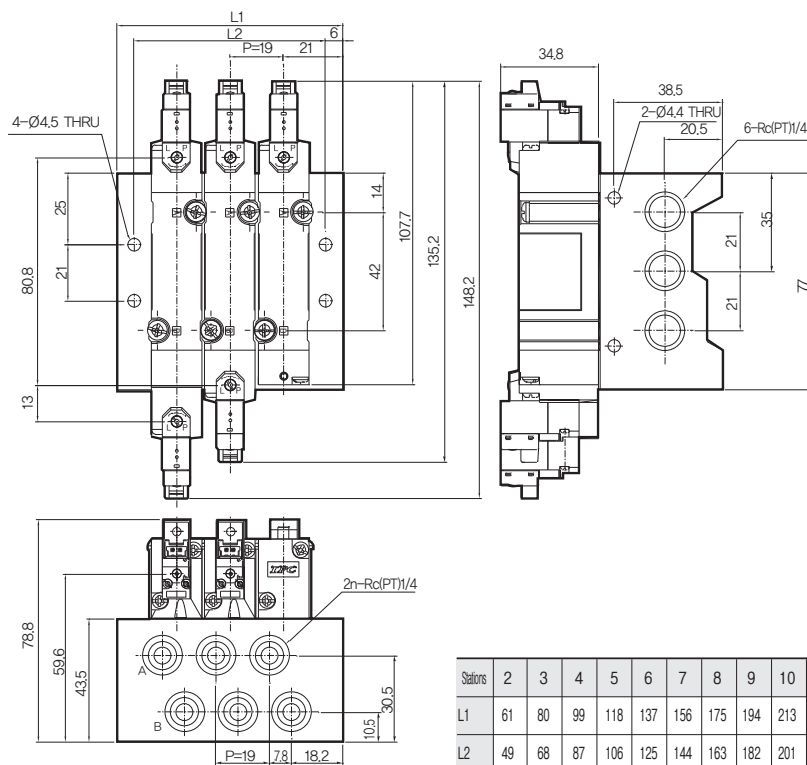
1 2 3

- 1 DV4000 Manifold
2 Body Ported Type
3 Stations (2~20)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

Manifold Dimensions / Series DV4000 Base Mounted / H: Horizontal Connector Type

(Unit:mm)



How To Order

DVM4 — **40** — **05**

1 2 3

- 1 DV4000 Manifold
2 Base Mounted Type
3 Stations (2~20)

Stations	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

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

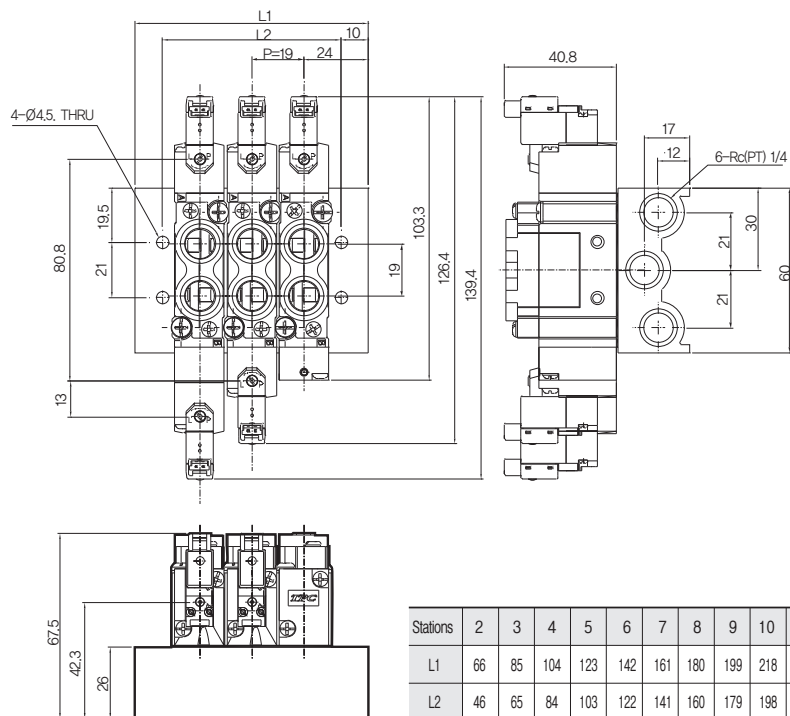
DM

DT220

Series DV4000

Manifold Dimensions / Series DV4000 Body Ported / V: Vertical Connector Type

(Unit:mm)



How To Order

DVM4 — **20** — **05**

1 2 3

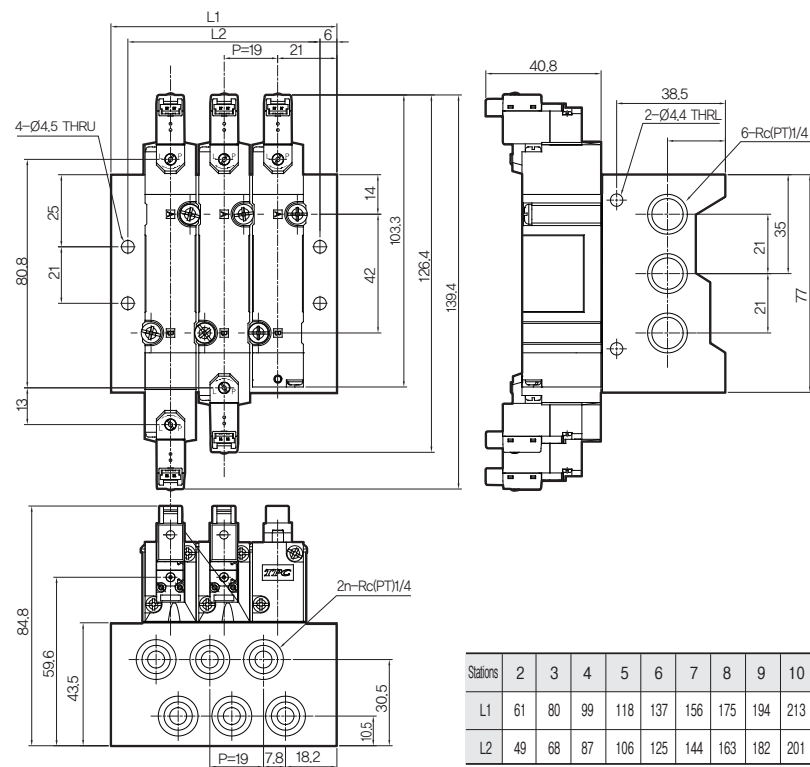
- 1 DV4000 Manifold
- 2 Body Ported Type
- 3 Stations (2~20)

(mm)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

Manifold Dimensions / Series DV4000 Base Mounted / V: Vertical Connector Type

(Unit:mm)



How To Order

DVM4 — **40** — **05**

1 2 3

- 1 DV4000 Manifold
- 2 Base Mounted Type
- 3 Stations (2~20)

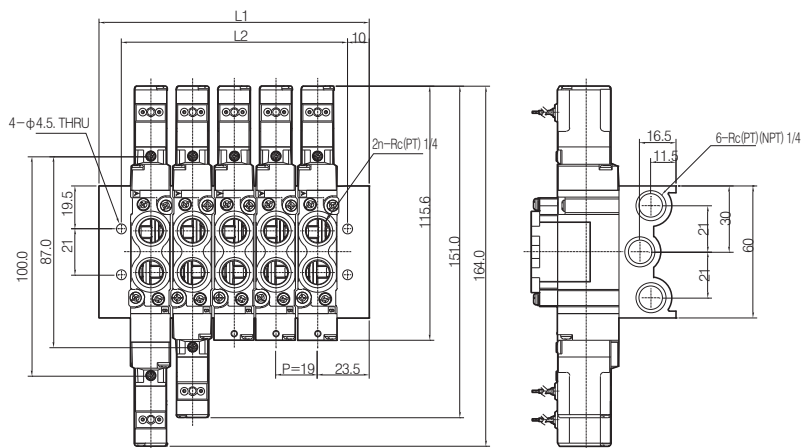
(mm)

Stations	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

Series DV4000

Manifold Dimensions / Series DV4000 Body Ported : Grommet Type

(Unit:mm)

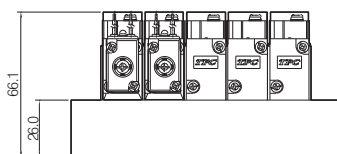


How To Order

DVM4 — **20** — **05**

1 2 3

- 1 DV4000 Manifold
2 Body Ported Type
3 Stations (2~20)

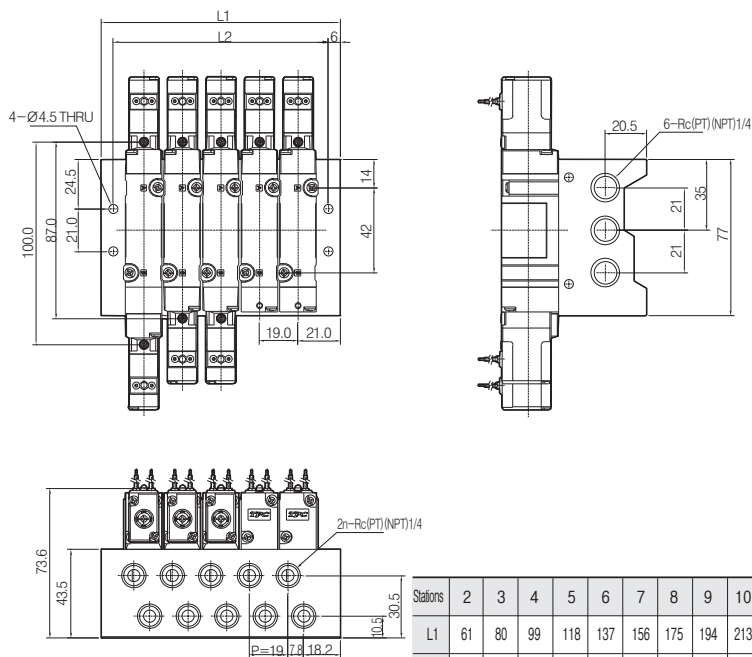


Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

(mm)

Manifold Dimensions / Series DV4000 Base Mounted : Grommet Type

(Unit:mm)



How To Order

DVM4 — **40** — **05**

1 2 3

- 1 DV4000 Manifold
2 Base Mounted Type
3 Stations (2~20)

Stations	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

(mm)

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

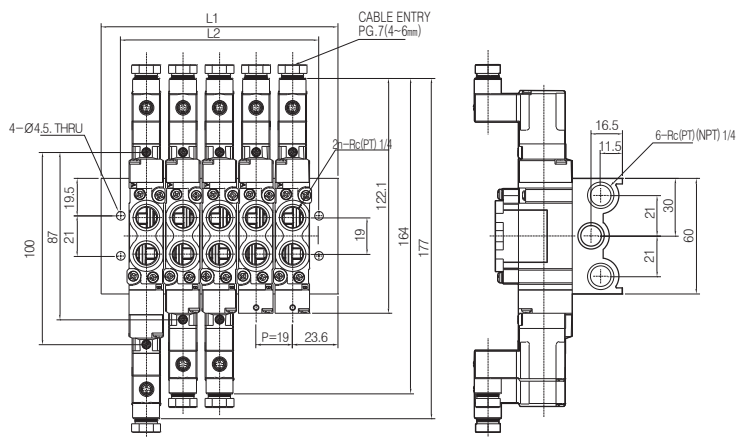
DM

DT220

Series DV4000

DV4000 Series Body Ported Manifold Dimensions / Din Terminal Type

(Unit:mm)



How To Order

DVM4 — **20** — **05**

1 2 3

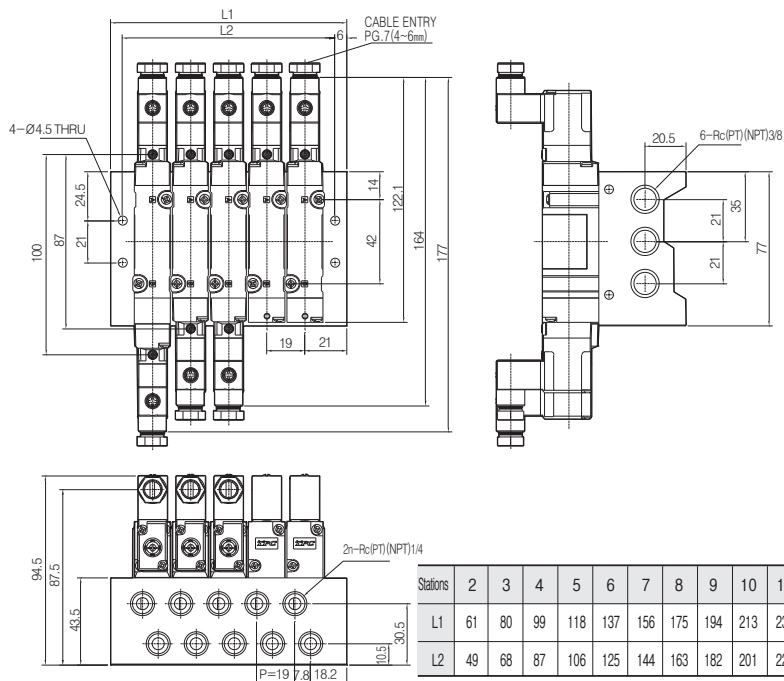
- 1 DV4000 Manifold
2 Body Ported Type
3 Stations (2~20)

(mm)

Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	66	85	104	123	142	161	180	199	218	237	256	275	294	313	332	351	370	389	408
L2	46	65	84	103	122	141	160	179	198	217	236	255	274	293	312	331	350	369	388

DV4000 Series Base Mounted Manifold Dimensions / Din Terminal Type

(Unit:mm)



How To Order

DVM4 — **40** — **05**

1 2 3

- 1 DV4000 Manifold
2 Base Mounted Type
3 Stations (2~20)

(mm)

Stations	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

Safety Instructions

These safety instructions are basically provided so as to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard by labeling "Caution", "Warning" or "Danger". In order to achieve a desired safety, it is preferred to comply ISO 4414(Note1), KS B 6376(Note2), JIS B 8370(Note3) and other safety practices.

❗ **Danger** : There is a possibility of serious injury or loss of life in extreme.

❗ **Warning** : Operator error may cause serious injury or loss of life.

❗ **Caution** : Operator error may cause injury or equipment damage.

Note1) ISO4414 : Pneumatic fluid power-Recommendations for the application of equipment to transmission and control systems.

Note2) KS B 6376 : Pneumatic system axiom

Note3) JIS B 8370 : Pneumatic system axiom

❗ Warning

● In event that the product is to be used in any of the following conditions contact us:

1. In event that conditions and environments beyond the given specifications, or if product is used outdoors.
2. In the case of Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverage, recreation equipment, emergency stop circuits, press applications, or safety equipment.
3. In the case of an application provided with the possibility of having effects on people, property, or animals, requiring special safety analysis.

● It is preferred that the compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Their compatibility with the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements because the products specified here are used in various operating conditions..

● Pneumatically operated machinery and equipment should be handled by only trained personnel.

If an operator is unfamiliar with it, compressed air can be dangerous. Trained and experienced operators are preferred to perform assembly, handling or repair of pneumatic systems.

● Service machinery/equipment or attempt to remove components until safety is confirmed should be avoided.

1. After confirmation of safe locked -out control positions, it is preferred to perform inspection and maintenance of machinery/equipment.
2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for the equipment and exhaust all residual compressed air in the system.
3. Be sure to take measures to prevent quick extensions of the cylinder piston rod etc. prior to machinery/equipment is re-started (Bleed air into the system gradually to create back-pressure.)

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

DT220

Series DV4000

Precautions

Be sure to read before handling.

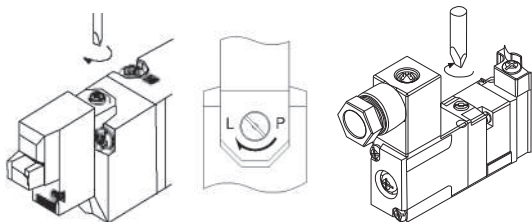
Refer to safety instructions and common precautions.

! Caution

Manual operation

[The Push-turn Lock method driver operation]

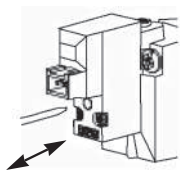
While pushing the manual button turn to the arrow direction. If you do not turn and push you can use the Non-lock Push method to operate. When using a driver you can use a watch driver to easily turn. When removing the Lock you can turn to the opposite direction of the arrow. If you press too hard you will damage the valve.



Caution) When activating automatically have the manual button on the Lock stage and make sure to activate after removing the Lock.

[Non-lock Push method manual operation]

Using the Solenoid coil side manual operation press lightly on the manual button under the coil connector with a driver as seen below.



Pilot air exhaust port

1) Collection exhaustion

The DV series is a type that the pilot valve exhaustion is collected to the main valve. Be careful that the exhaust port is clear of obstruction. The P, R port is on both sides of the manifold and you can select the exhaust direction according to the installation location. The P port exhaustion must have the appropriate size for the exhaust connection hole in order to prevent an output deficiency of the actuator and operational errors due to a shortage in pressure. Make sure to use plenty of exhaust port on both sides to ensure no operational errors occur due to exhaust resistance when you are installing the R port noise device.

2) Individual exhaust

- ① Since it is in to type of individual exhaustion that releases air in the pilot valve into atmosphere, it cannot be used in places requiring high purity.
- ② Use connector type(H or V) to exhaust(grouped exhaustion) pilot air in grouped state through main valve.

[Using the 3 port valve]

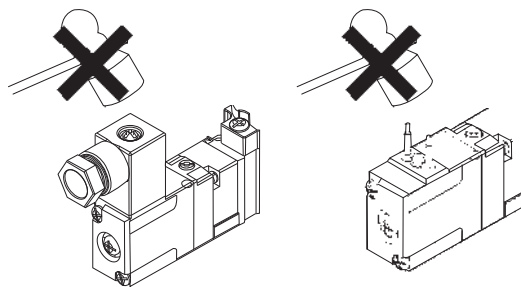
The DV series has a specification of a 5 port valve but if you are using a 3 port valve use one direction of a cylinder port (A,B) to stop up the plug and you will be able to use the Normal Close (N.C) or Normal Open (N.O) 3 port valve.

Except, use with the exhaust port(R1, R2) open.

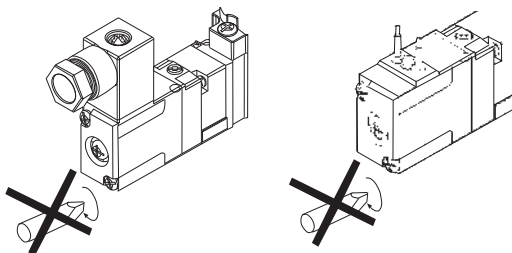
Location of the plug		B port	A port
Conversion Method		N.C	N.O
Number of Solenoids	Single		
	Double		

Cautions for wiring and use

- 1) Be careful to prevent connector case of solenoid coil or lamp from being broken by shock.



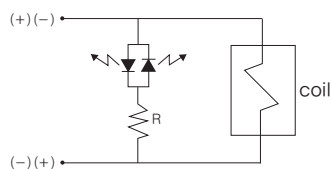
- 2) Do not assemble/disassemble screw at the center of solenoid coil, because it is used to fasten the core.



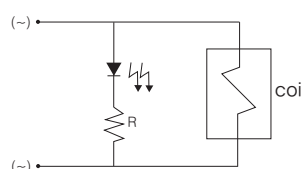
! Precautions

- 3) Avoid the following places where the life of valve may be radically reduced.
 - a. Place with much dust, moisture, vibration or shock
 - b. Place subject to the influence of salt, corrosive gas and chemicals
 - c. Place where the neighboring temperature is not in the range of 0~60°C(32~140°F)
- 4) By operating solenoid valve, keep the fluctuation of rated voltage within + / -10% of rated voltage. Otherwise, malfunction may be caused or coil may be damaged.
- 5) Surge voltage that generated while supplying/blocking power to/at solenoid valve may affect magnetic circuit adversely. Thus, it is required to prepare measure for this problem in the case of PLC control.
- 6) Though power is blocked, operation may continue due to leakage current in the magnetic circuit. Thus, be sure to keep the residual leakage current at both ends under 20% of rated voltage for AC and under 3% of rated voltage for DC.
- 7) Valves of AC 110V, AC 220V Specification
Our valve is a non-standard option specification solenoid Coil which you may ask about when ordering.

<DC>



<AC>



How to use the plug connector

When you are installing the connector hold the lever and connector body with your hands and insert the connector in the connector housing, then lock it by pressing in the connector lever hook. When you are separating the connector press the lever to disconnect the hook from the connector housing home. When you are pulling the lead line too lightly or put too much force it will result in poor connections or disconnections.

[How to use DIN Connector]

Wiring

- 1) Be sure to loosen set screw and pull out the connector from the terminal block of the solenoid.
- 2) To separate block and housing, be sure to pull out screw and insert a screwdriver to the slit area near the bottom of terminal block.
- 3) To separate block and housing, and affix it securely with the terminal screw, it is preferred to loose terminal screw of terminal block, it is preferred to place bare end of the bottom of terminal block.
- 4) Be sure to tighten ground nut to secure the wire.

! Caution

Use the cabtire cable(ø3.5 to ø7) for wiring to meet IP65 standard(enclosure). Tighten the ground nut and set screw with the specified range of torque.

Change of electrical entry(Orientation)

After separating terminal block and housing, mount 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 connector in vertically, never at an angle.

DW

DR100

DR200

RS1000,
2000

RS4000

SI UNIT

DV1000
DV3000
DV4000

DS300

DS3000

DS5000

DS2000

DS6000

DX1,DX2

DX1(2)R

DH

DP300
DP3000
DP5000

DM

DT220