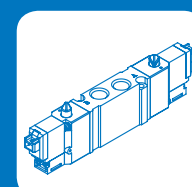
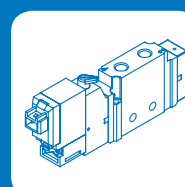
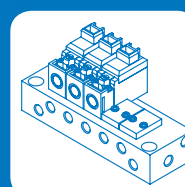
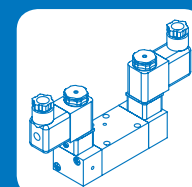
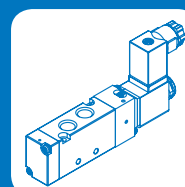
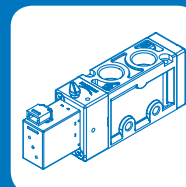
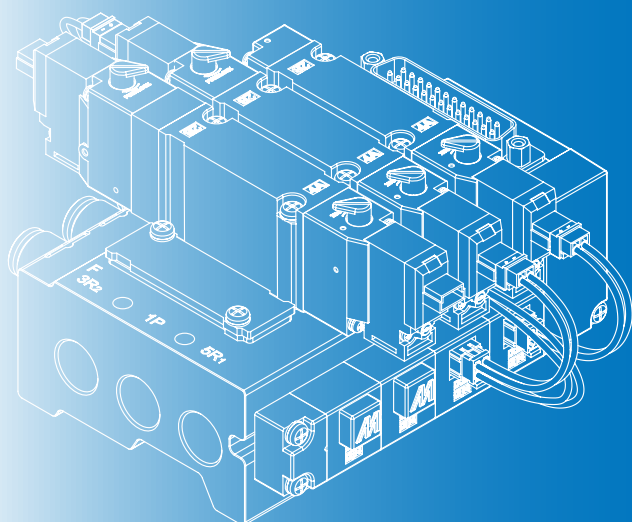


# (4way / 3way) SOLENOID VALVE



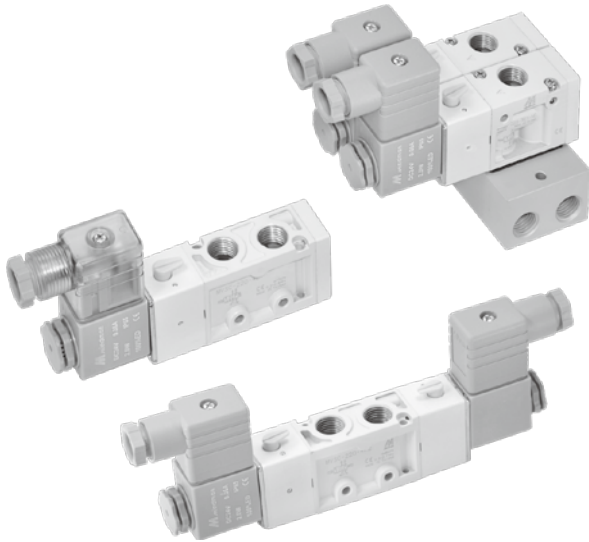
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Model	Valve type						Body type			
	3/2		5/2		5/3			Body ported type	Manifold type	Base type
	Normally closed (NC)	Normally open (NO)	Single acting	Double acting	Closed center	Pressure center	Exhaust center			
MVSC-220	●	●	●		●	●	●	●	●	
MVSC-260			●		●	●	●	●		
MVSC-300	●	●	●		●	●	●	●		
MVSC-460	●	●	●		●	●	●	●		
MVSD-180	●	●	●		●	●	●	●		
MVSD1-180			●		●	●	●	●		
MVSE-260			●		●	●	●	●		
MVSE-300			●		●	●	●	●		
MVSE-500			●					●		
MVSE-510			●					●		
MVSE-600			●					●		
MVSF-100	●	●	●					●	●	
MVSG-180			●		●	●	●	●		
MVSI-260			●		●	●	●		●	●
MVSI-450			●						●	●
MVSI-510			●						●	●
MVSN-220			●					●		
MVSN-300			●		●	●	●	●		
MVSP-150			●					●	●	
MVSP-156			●		●	●	●	●	●	
MVSP-180			●		●	●	●	●		
MVSP-188			●		●	●	●	●	●	
MVSP-220			●		●	●	●	●	●	
MVSY-100			●		●	●	●	●	●	
MVSY-156			●		●	●	●	●	●	
MVSY-188			●		●	●	●	●	●	
MVSZ-100			●					●		
MVDC-220	●							●		
MVDY-100	●								●	●

*A, B port size & effective oriufice mm <sup>2</sup> (Cv factor)									Body width (mm)	Power consumption W(DC)	* Working pressure range MPa	Page
M3	M5	1/8"	1/4"	3/8"	1/2"	3/4"	1"					
		18 (1.00)	18 (1.00)						22	2	0.2~0.8	1-4
			18 (1.00)						26	2	0.2~0.8	1-9
					35 (1.94)				30	2	0.2~0.8	1-12
						50 (2.78)			30	2	0.2~0.8	1-16
		12 (0.67)							18	3	0.15~0.8	1-20
		12 (0.67)							18	2.9	0.15~0.8	1-24
			18 (1.00)						26	2	0.2~1.2	1-28
					35 (1.94)				30	2	0.2~1.2	1-31
						41 (2.28)			30	2	0.2~1.2	1-34
						65 (3.61)			68	10	0.2~0.7	1-36
							115 (6.39)	135 (7.5)	68	10	0.2~0.7	1-38
	1.0 (0.06)								10	0.55	0.15~0.7	1-40
		10 (0.56)							18	1.6	0.15~0.7	1-44
			22 (1.22)						35	2	0.2~0.7	1-47
			27 (1.5)						45	2	0.2~0.7	1-49
					65 (3.61)				68	10	0.2~0.7	1-54
			18 (1.00)						22	2	0.2~0.7	1-56
			35 (1.94)						30	2	0.2~0.8	1-58
	38 (0.21)								15	0.95	0.15~0.8	1-62
		11 (0.61)							15	0.95	0.15~0.7	1-64
		12 (0.67)							18	0.95	0.15~0.8	1-69
			15 (0.83)						18	0.95	0.15~0.7	1-72
		18 (1.00)	18 (1.00)						22	0.95	0.2~0.8	1-76
	4.5 (0.25)								10	0.55	0.2~0.8	1-80
		11 (0.61)							15	0.55	0.15~0.7	1-84
			15 (0.83)						18	0.55	0.15~0.7	1-90
	4.7 (0.26)								10	0.55	0.15~0.7	1-65
		0.8 (0.044)							22	2	0.01~0.7	1-97
	0.28 (0.016)								10	0.55	0~0.9	1-99

\* The data is based on 5/2.



### Specification

Model	3E1	3E2	4E1	4E2	4E2 C.P.R
Bore No.	8A		6A, 8A		
Port size	Rc1/4		Rc1/8, Rc1/4		
No. of port	3		5		
No. of position	2		2	3	
Medium	Air				
Operating pressure range	0.2~0.8 MPa		0.3~0.8 MPa		
Operating pressure (LP)	0~0.8 MPa				
External pilot pressure (LP)	0.2~0.8 MPa		0.3~0.8 MPa		
Proof pressure	1 MPa				
Effective orifice	18 mm <sup>2</sup>		16 mm <sup>2</sup>		
Response time	30 ms		40 ms		
Ambient temperature	-5~+50°C (No freezing)				
Voltage	AC110V, 220V (50/60)Hz, DC24V				
Power consumption	AC=4.8/4.4VA, 6/4.9VA, DC=2W				
Available voltage range	±10%				
Insulation class	F class				
Weight	203 g	296 g	184 g	292 g	338 g

### Order example of valve

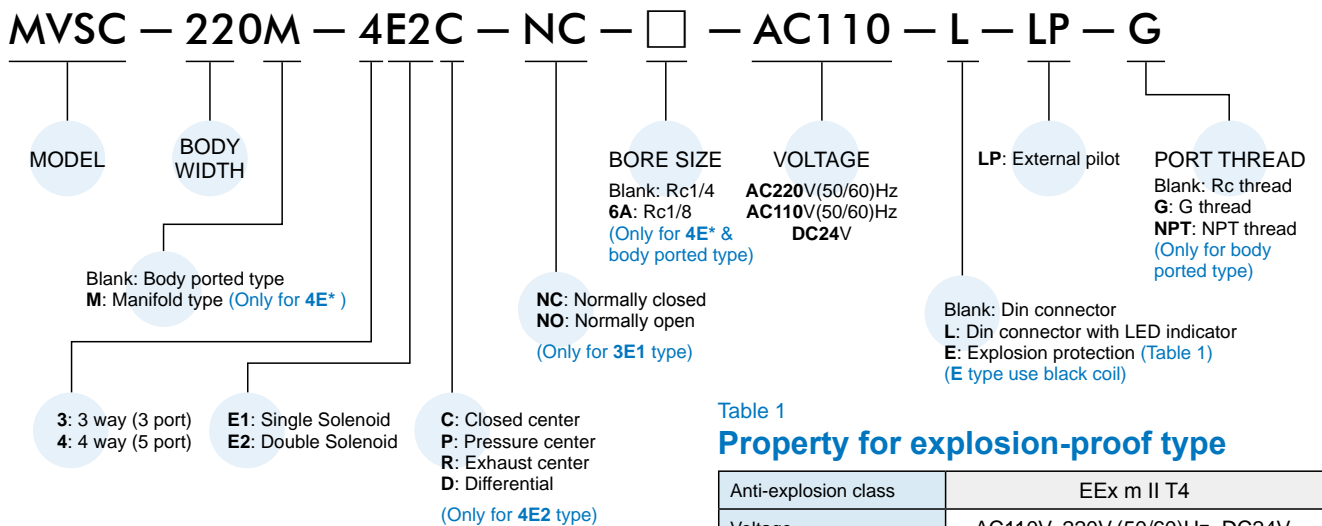
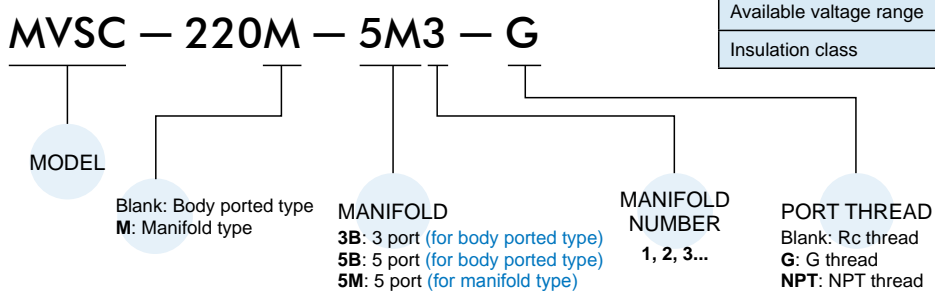


Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V.(50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

### Order example of manifold

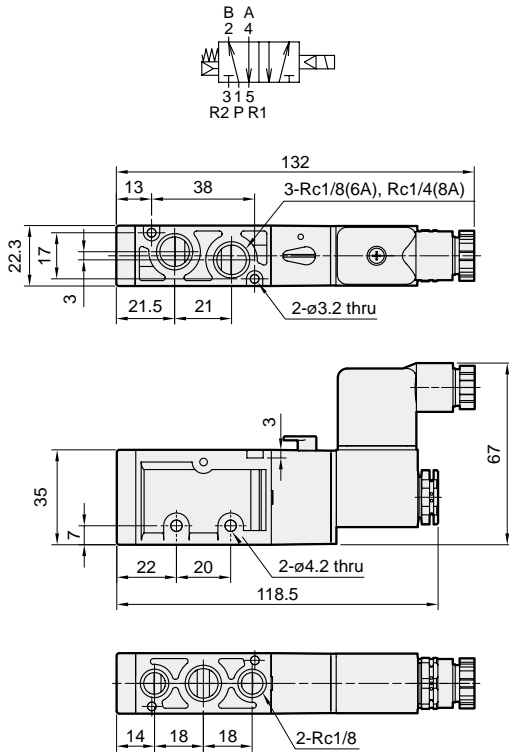


# MVSC-220 Dimensions

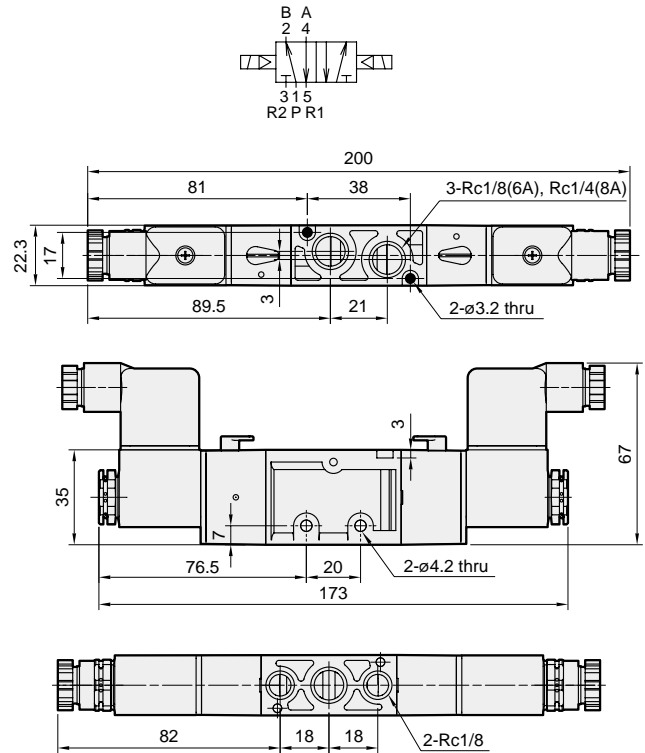
## SOLENOID VALVE



### MVSC-220-4E1

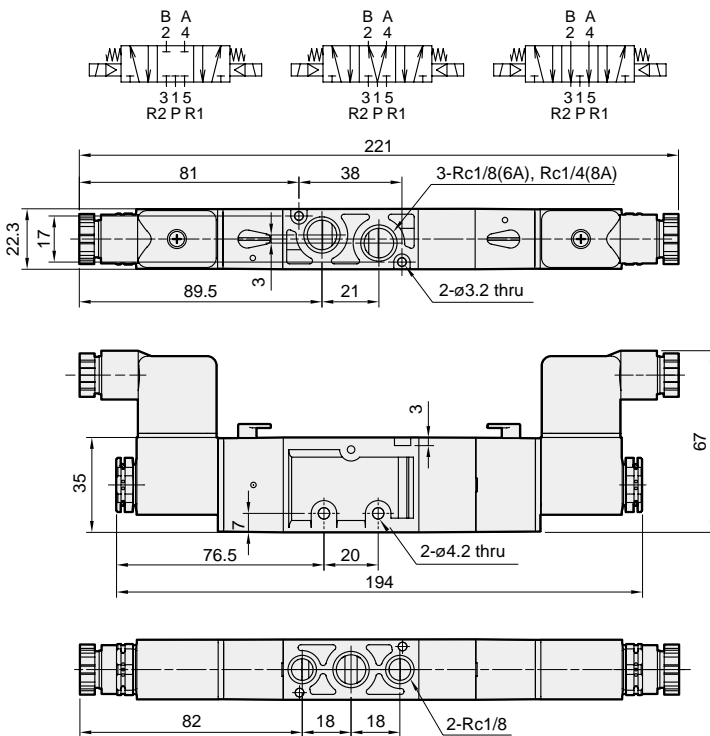


### MVSC-220-4E2

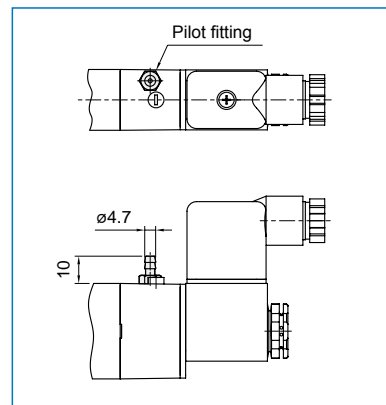


### MVSC-220-4E2C.P.R

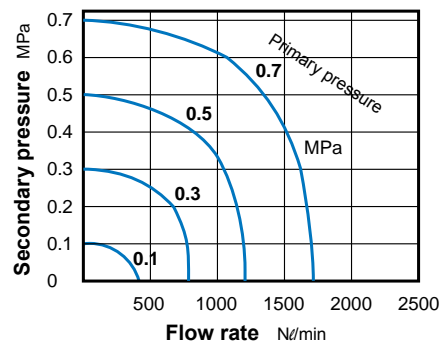
#### MVSC-220-4E2C    MVSC-220-4E2P    MVSC-220-4E2R



### LP



### Flow features

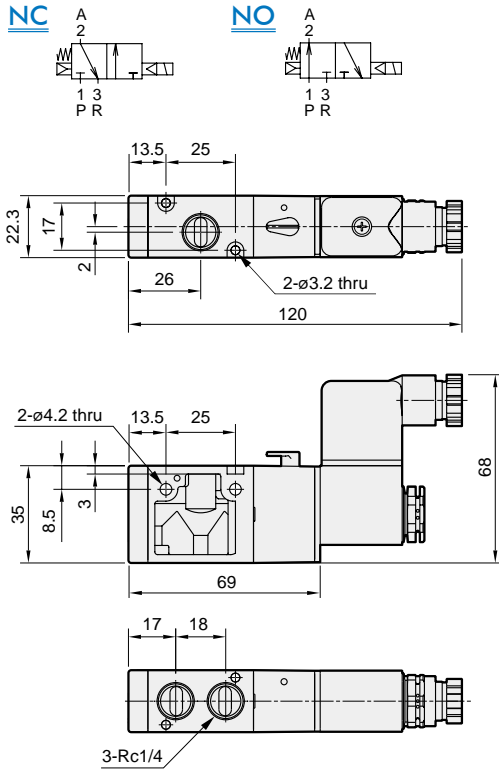


# MVSC-220 Dimensions / Manifold

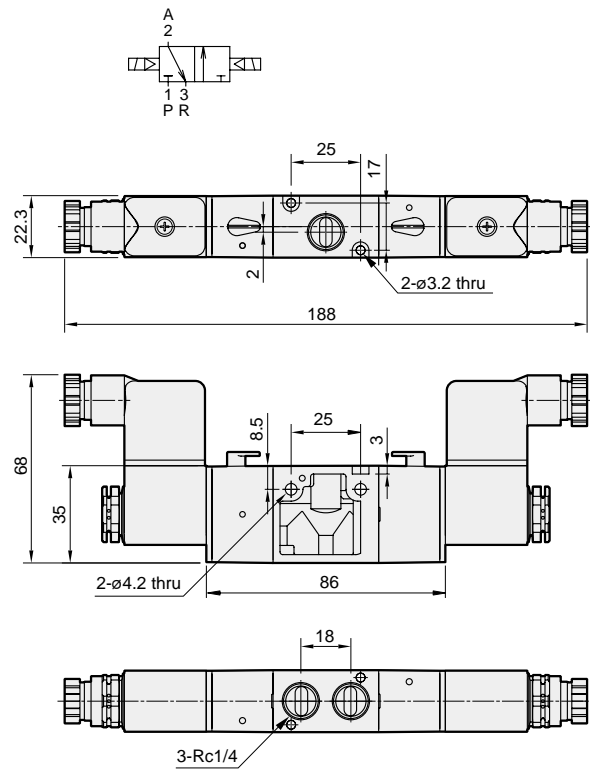
## SOLENOID VALVE



### MVSC-220-3E1-NC/NO



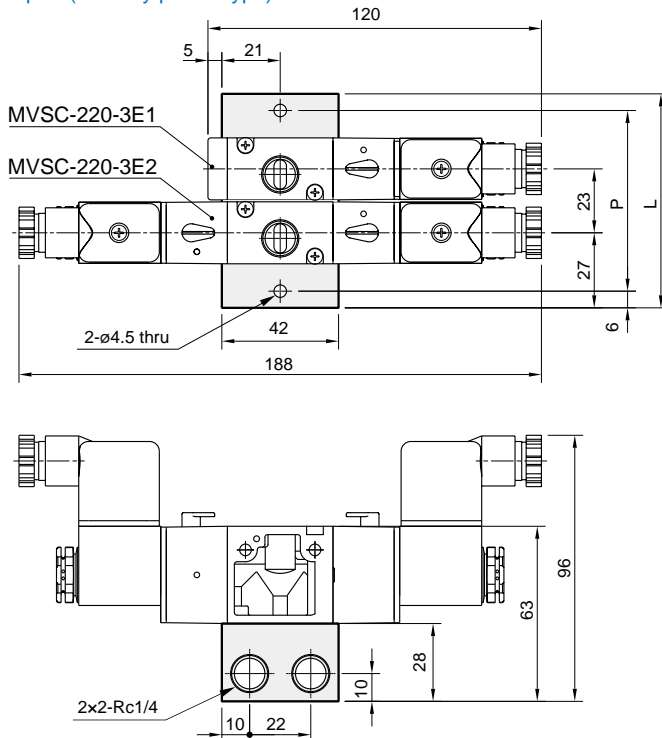
### MVSC-220-3E2



## Manifold of solenoid valve

### MVSC-220-3B\*

3 port (for body ported type)



No. of stations	P	L
2	66	77
3	88	100
4	111	123
5	134	146
6	157	169
7	180	192
8	203	215
9	226	238
10	249	261

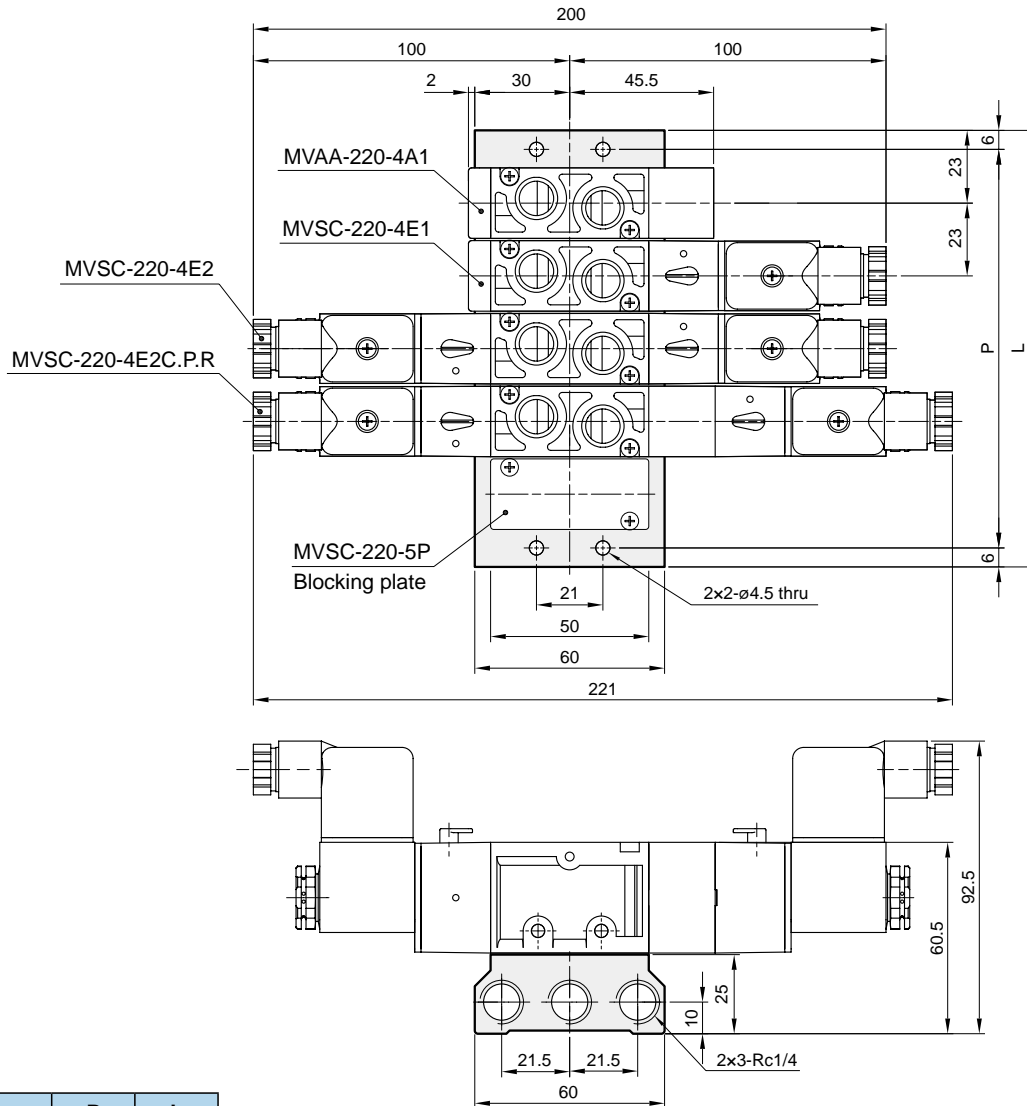
# MVSC-220 Manifold

## SOLENOID VALVE



### MVSC-220-5B\*

5 port (for body ported type)



No. of stations	P	L
2	57	69
3	80	92
4	103	115
5	126	138
6	149	161
7	172	184
8	195	207
9	218	230
10	241	253

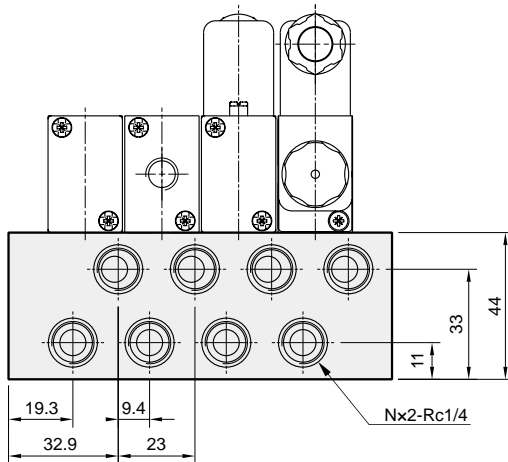
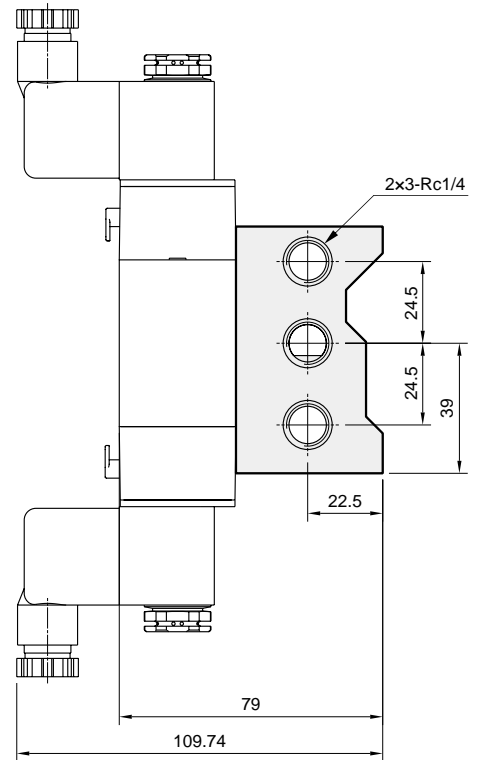
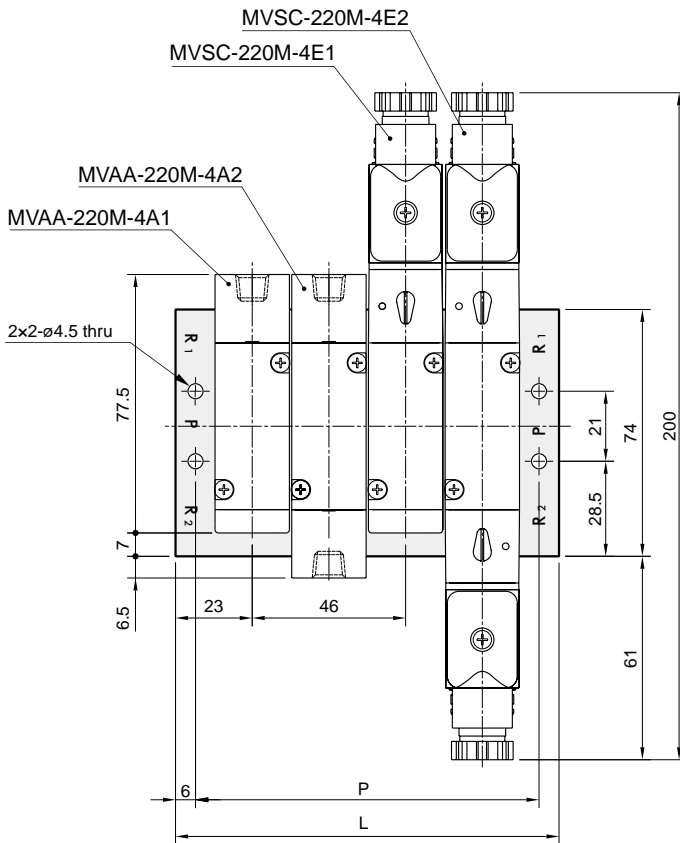
# MVSC-220 Manifold

## SOLENOID VALVE



### MVSC-220M-5M\*

5 port (for manifold type)

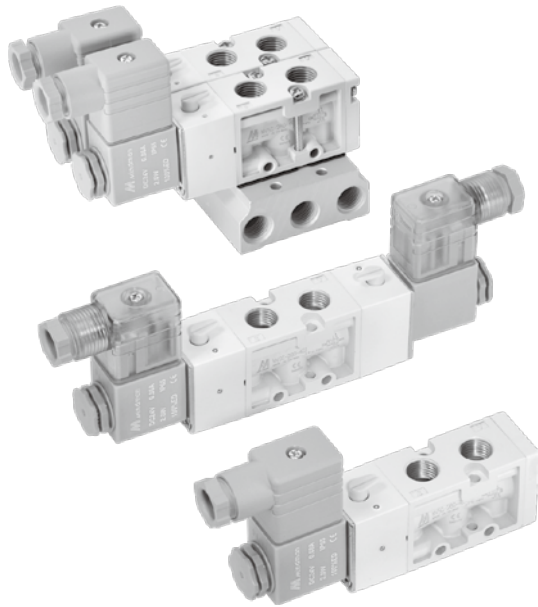


No. of stations (N)	P	L
2	57	69
3	80	92
4	103	115
5	126	138
6	149	161
7	172	184
8	195	207
9	218	230
10	241	253



# MVSC-260 series

## SOLENOID VALVE

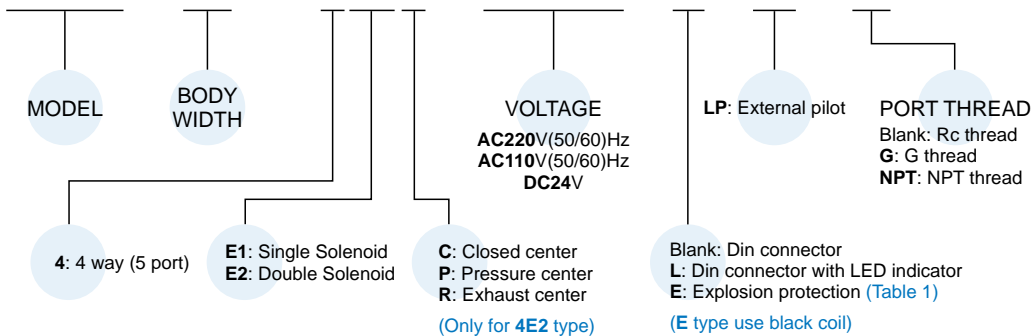


### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	8A		
Port size	Rc1/4		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating pressure range	0.2~0.8 MPa	0.3~0.8 MPa	
Operating pressure (LP)	0~0.8 MPa		
External pilot pressure (LP)	0.2~0.8 MPa	0.3~0.8 MPa	
Proof pressure	1 MPa		
Effective orifice	18 mm <sup>2</sup>	16 mm <sup>2</sup>	
Response time	40 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24V		
Power consumption	AC=4.8/4.4VA, 6/4.9VA, DC=2W		
Available voltage range	±10%		
Insulation class	F class		
Weight	228 g	314 g	444 g

### Order example of valve

**MVSC – 260 – 4E2C – AC110 – L – LP – G**



### Order example of manifold

**MVSC – 260 – 5B3 – G**

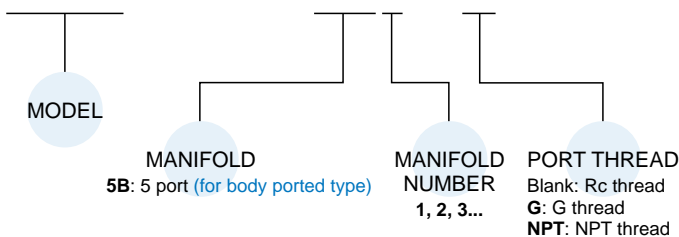


Table 1

### Property for explosion-proof type

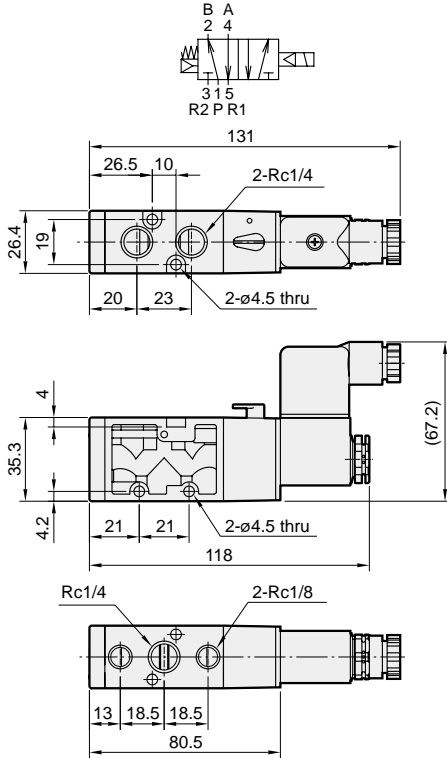
Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

# MVSC-260 Dimensions

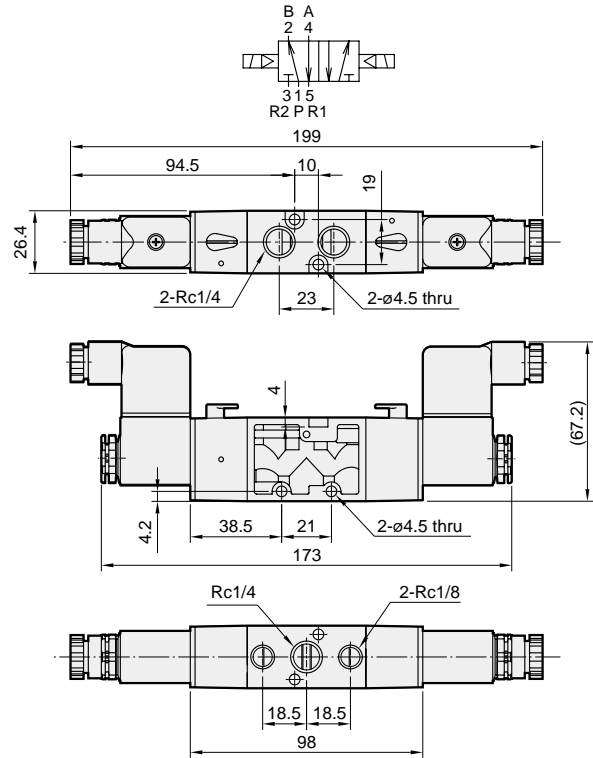
## SOLENOID VALVE



### MVSC-260-4E1

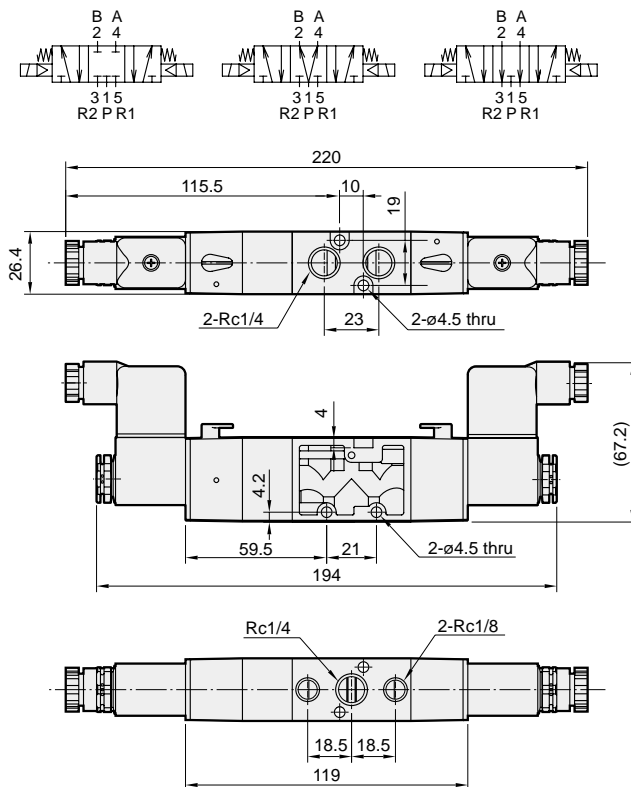


### MVSC-260-4E2

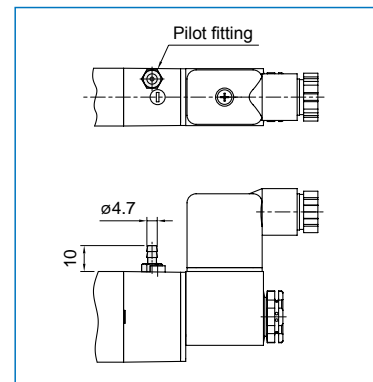


### MVSC-260-4E2C.P.R

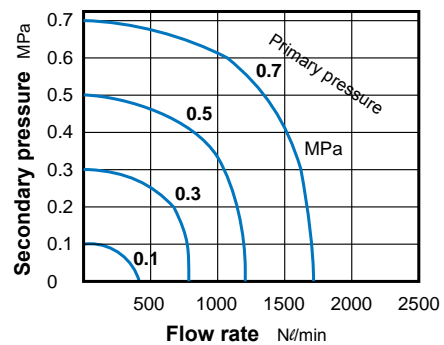
#### MVSC-260-4E2C MVSC-260-4E2P MVSC-260-4E2R



### LP



### Flow features



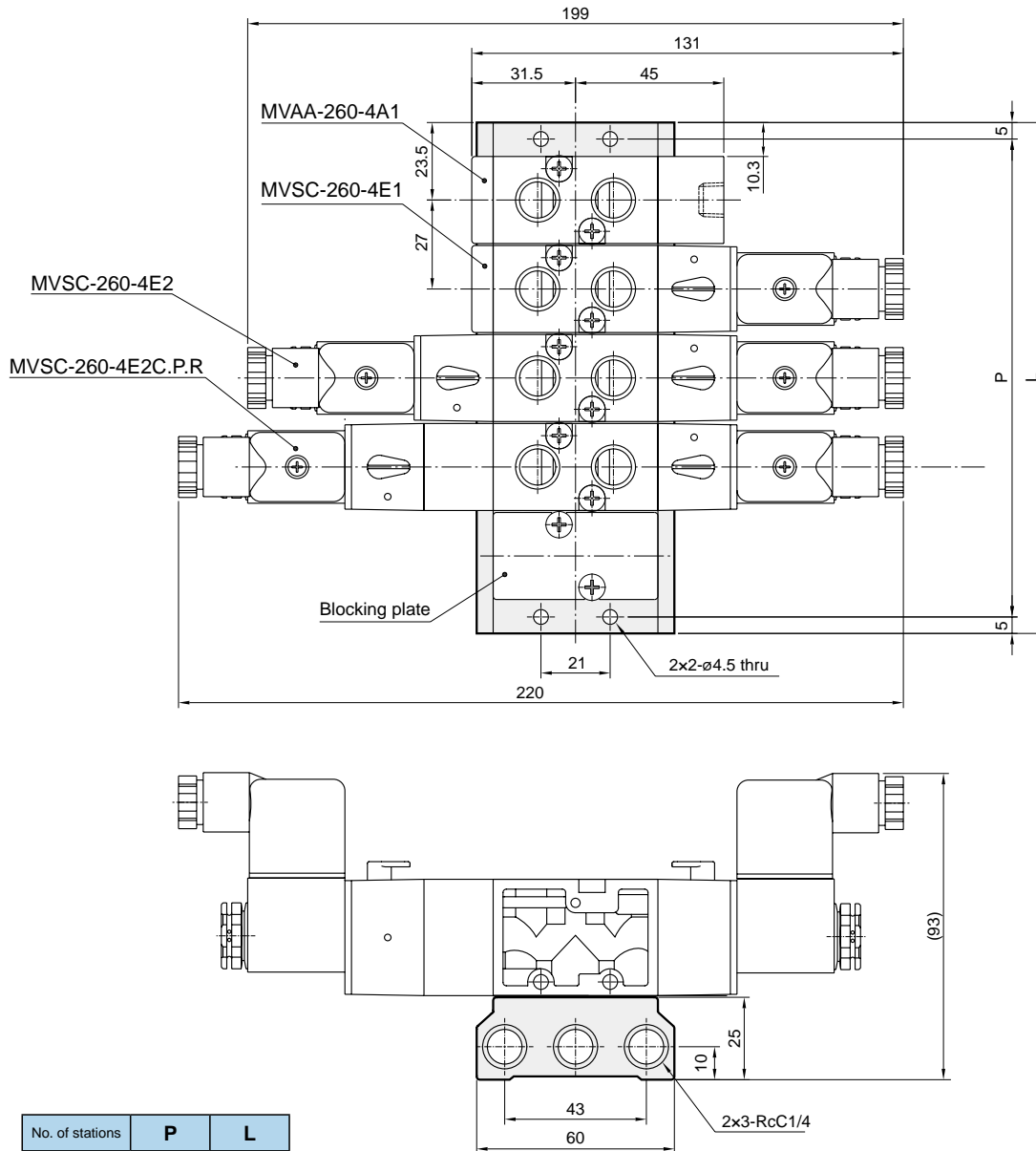
# MVSC-260 Dimensions

## SOLENOID VALVE

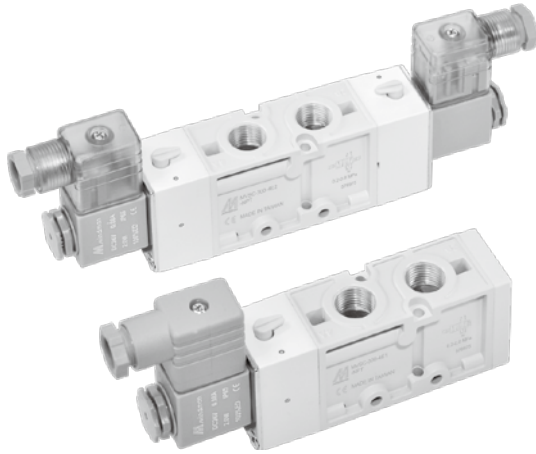


### MVSC-260-5B\*

5 port (for body ported type)



No. of stations	P	L
2	64	74
3	91	101
4	118	123
5	145	155
6	172	182
7	199	209
8	226	236
9	253	263
10	280	290

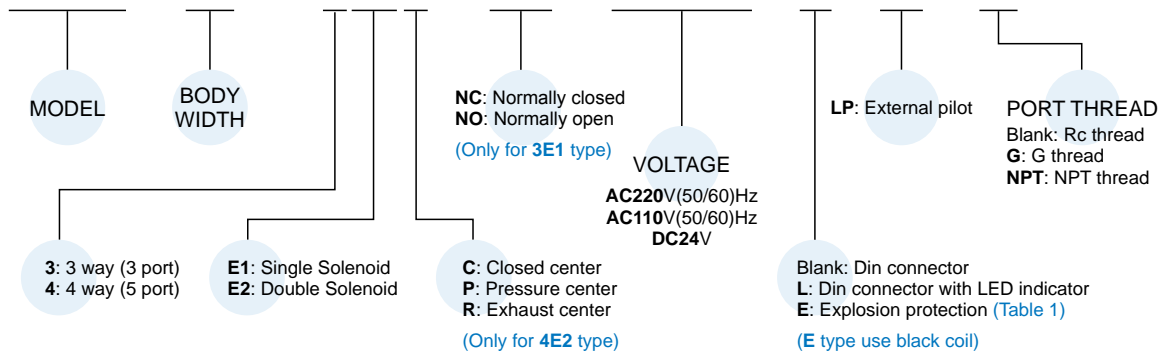


### Specification

Model	3E1	3E2	4E1	4E2	4E2 C.P.R
Bore No.	8A		6A, 8A		
Port size	Rc1/4		Rc1/8, Rc1/4		
No. of port	3		5		
No. of position	2		2	3	
Medium	Air				
Operating pressure range	0.2~0.8 MPa		0.3~0.8 MPa		
Operating pressure (LP)	0~0.8 MPa				
External pilot pressure (LP)	0.2~0.8 MPa		0.3~0.8 MPa		
Proof pressure	1 MPa				
Effective orifice	18 mm <sup>2</sup>		16 mm <sup>2</sup>		
Response time	30 ms		40 ms		
Ambient temperature	-5~+50°C (No freezing)				
Voltage	AC110V, 220V (50/60)Hz, DC24V				
Power consumption	AC=4.8/4.4VA, 6/4.9VA, DC=2W				
Available voltage range	±10%				
Insulation class	F class				
Weight	350 g	439 g	293 g	387 g	565 g

### Order example of valve

**MVSC – 300 – 4E2C – NC – AC110 – L – LP – G**



### Order example of manifold

**MVSC – 300 – 3B3 – G**

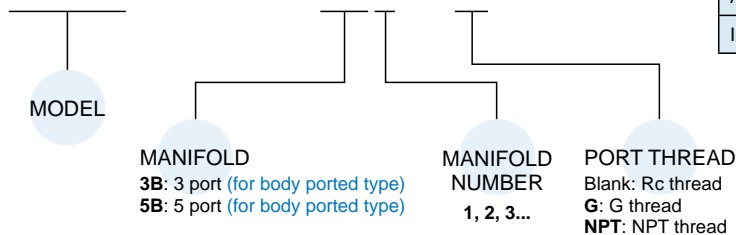


Table 1

### Property for explosion-proof type

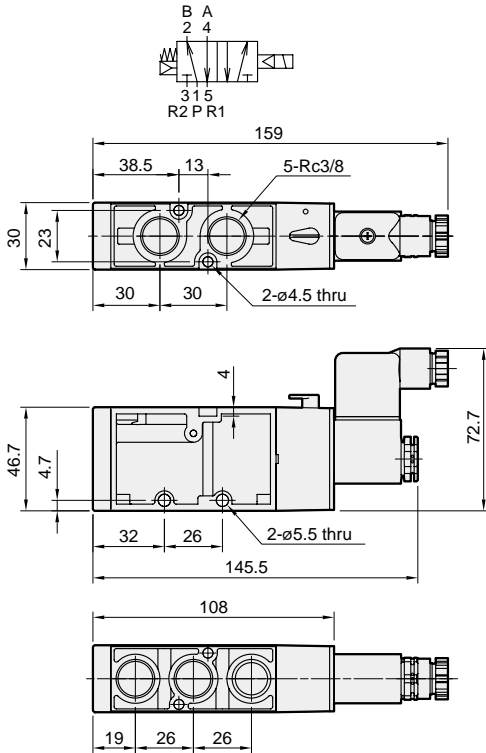
Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

# MVSC-300 Dimensions

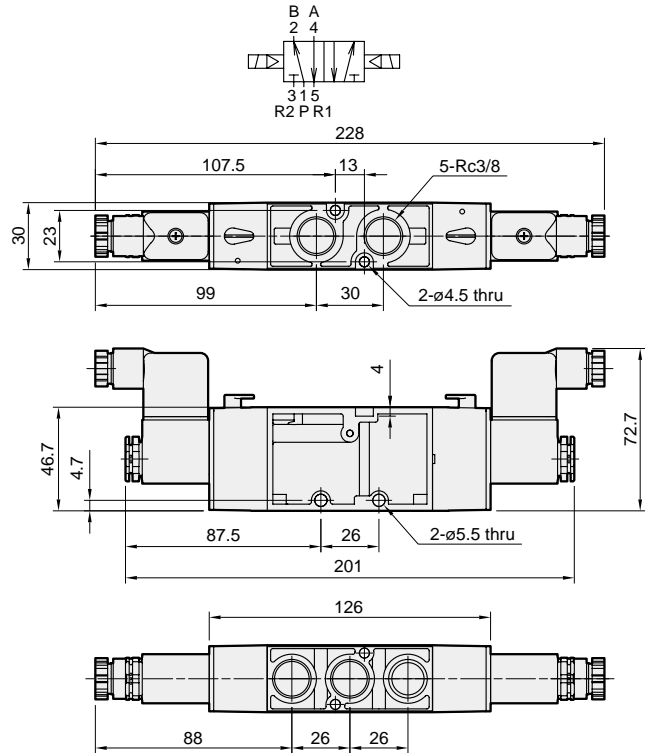
## SOLENOID VALVE



### MVSC-300-4E1

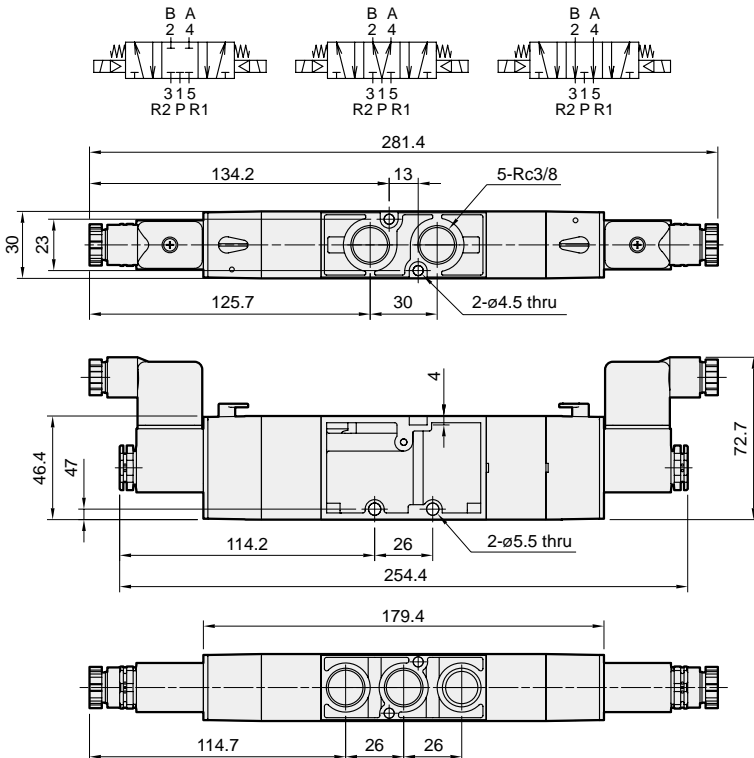


### MVSC-300-4E2

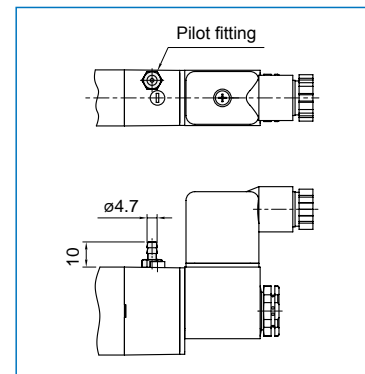


### MVSC-300-4E2C.P.R

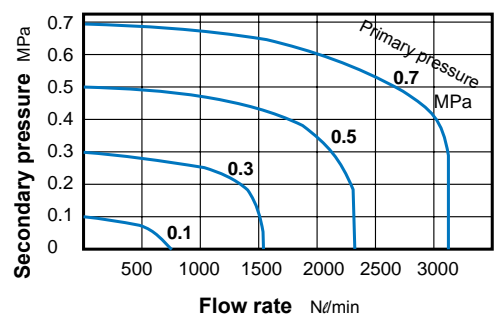
#### MVSC-300-4E2C MVSC-300-4E2P MVSC-300-4E2R



### LP



### Flow features

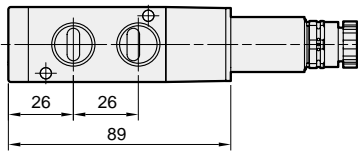
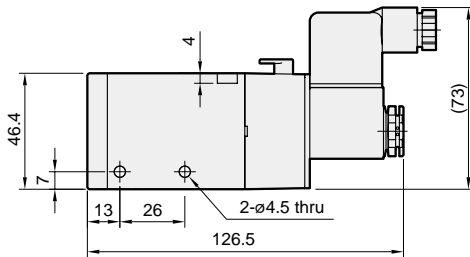
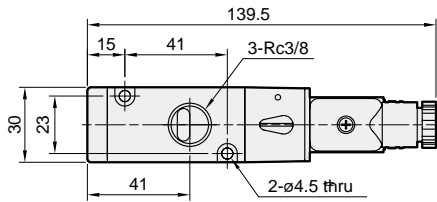
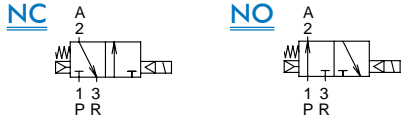


# MVSC-300 Dimensions / Manifold

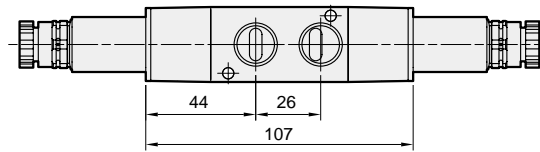
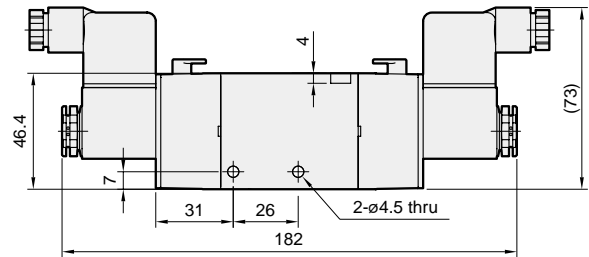
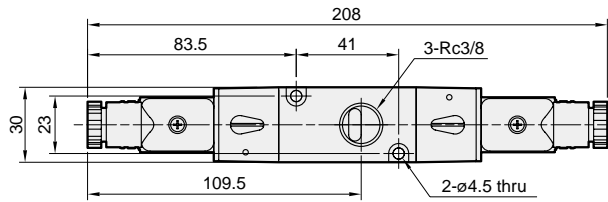
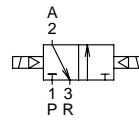
## SOLENOID VALVE



### MVSC-300-3E1-NC/NO



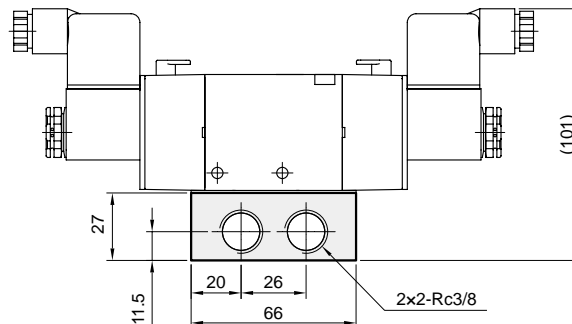
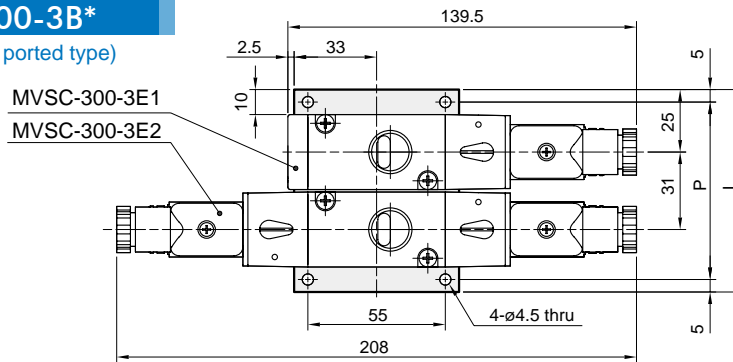
### MVSC-300-3E2



## Manifold of solenoid valve

### MVSC-300-3B\*

3 port (for body ported type)



No. of stations	P	L
2	71	81
3	102	112
4	133	143
5	164	174
6	195	205
7	226	236
8	257	267
9	288	298
10	319	329

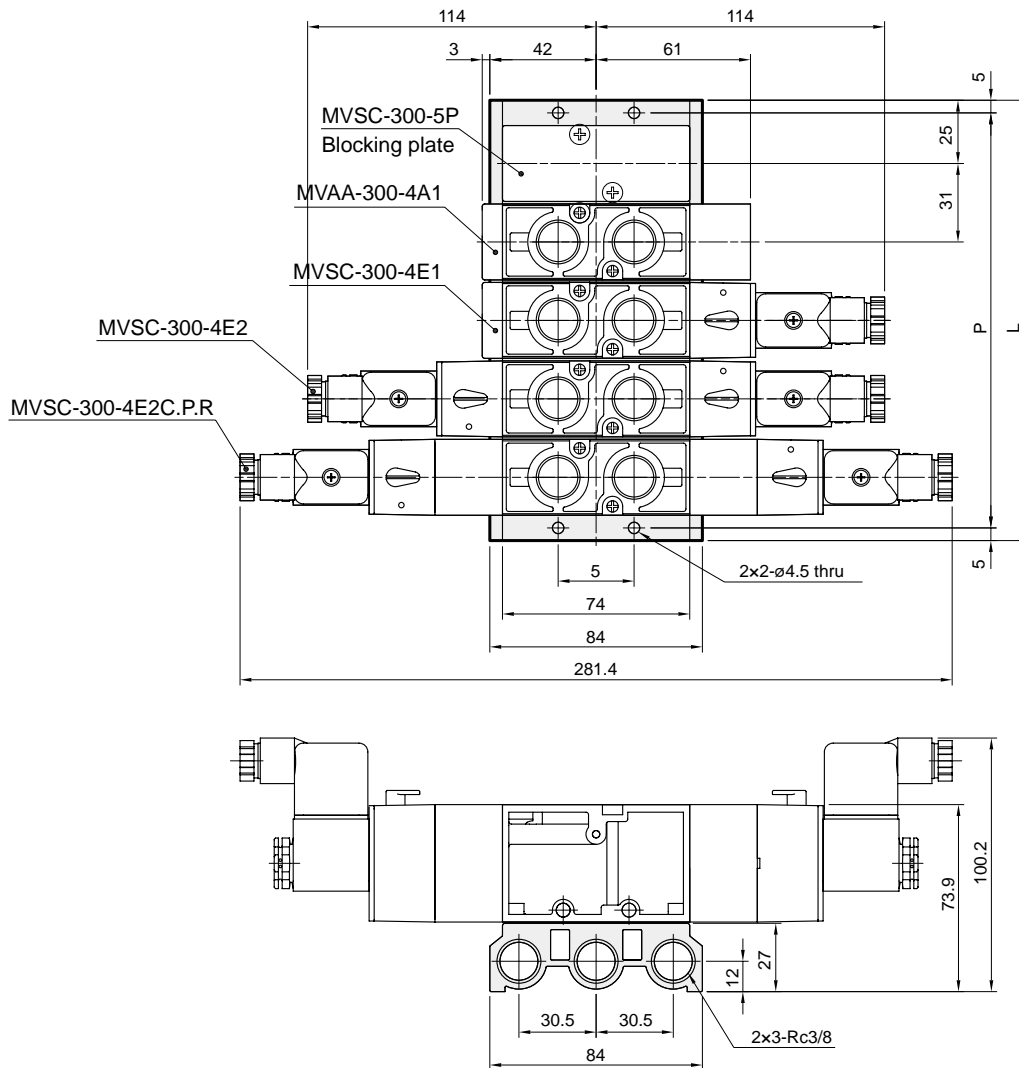
# MVSC-300 Manifold

## SOLENOID VALVE



### MVSC-300-5B\*

5 port (for body ported type)



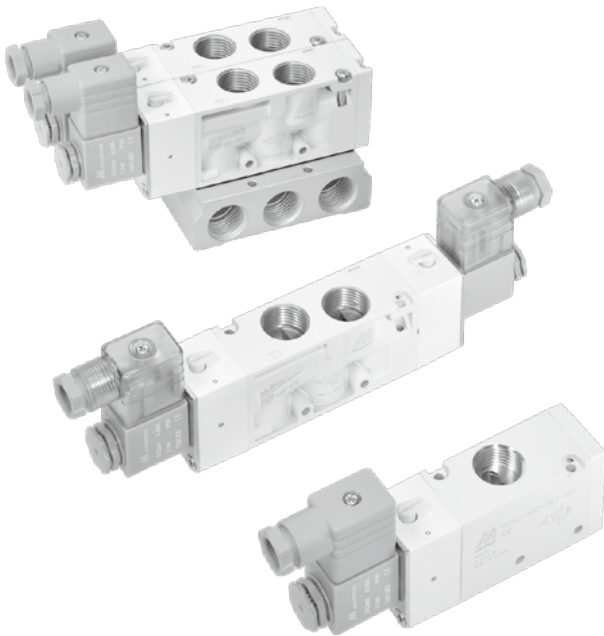
No. of stations	P	L
2	71	81
3	102	112
4	133	143
5	164	174
6	195	205
7	226	236
8	257	267
9	288	298
10	319	329

# MVSC-460 series

## SOLENOID VALVE



Mindman

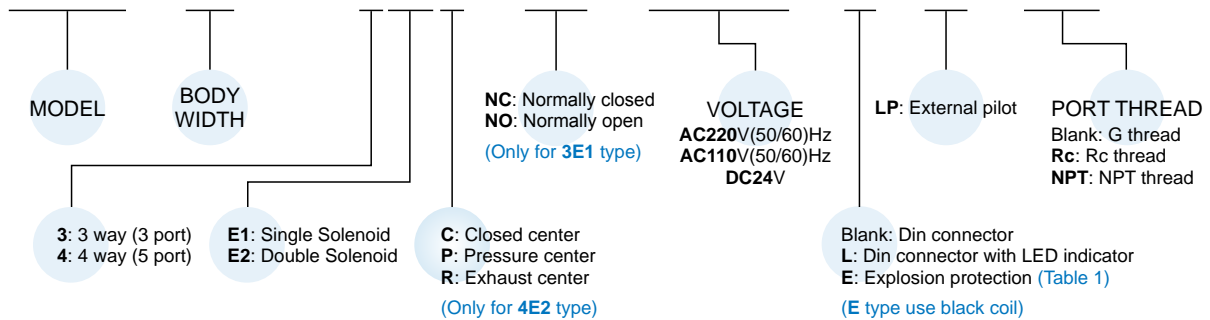


### Specification

Model	3E1	3E2	4E1	4E2	4E2 C.P.R
Bore No.	15A				
Port size	G1/2				
No. of port	3		5		
No. of position	2			3	
Medium	Air				
Operating pressure range	0.2~0.8 MPa			0.3~0.8 MPa	
Operating pressure (LP)	0~0.8 MPa				
External pilot pressure (LP)	0.2~0.8 MPa			0.3~0.8 MPa	
Proof pressure	1 MPa				
Effective orifice	60 mm <sup>2</sup>	50 mm <sup>2</sup>	30 mm <sup>2</sup>		
Response time	50 ms				
Ambient temperature	-5~+50°C (No freezing)				
Voltage	AC110V, 220V (50/60)Hz, DC24V				
Power consumption	AC=4.8/4.4VA, 6/4.9VA, DC=2W				
Available voltage range	±10%				
Insulation class	F class				
Weight	353 g	473 g	330 g	452 g	634 g

### Order example of valve

**MVSC – 460M – 4E2C – NC – AC110 – L – LP – NPT**



### Order example of manifold

**MVSC – 460 – 5B3 – NPT**

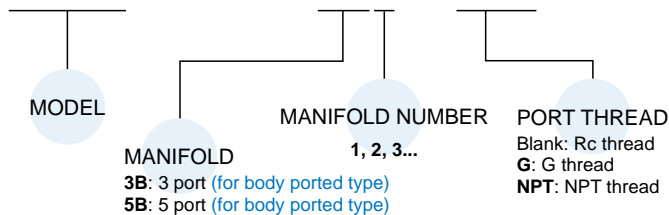


Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V.(50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

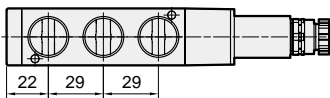
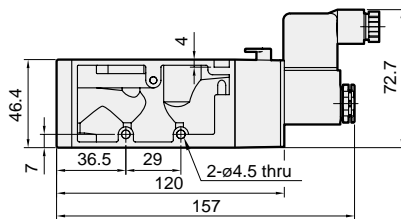
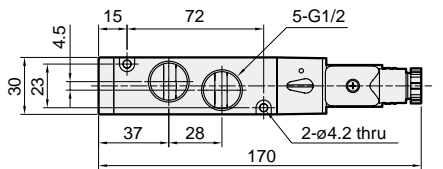
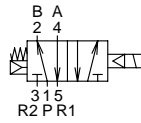


# MVSC-460 Dimensions

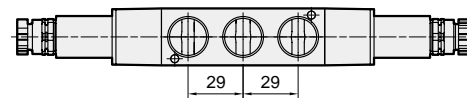
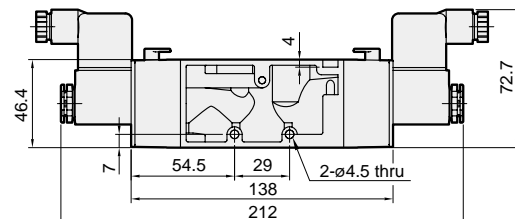
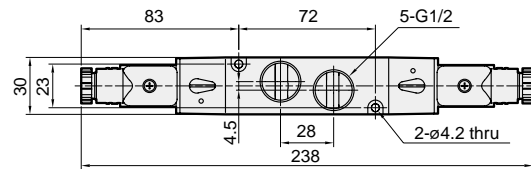
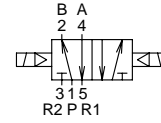
## SOLENOID VALVE



### MVSC-460-4E1



### MVSC-460-4E2

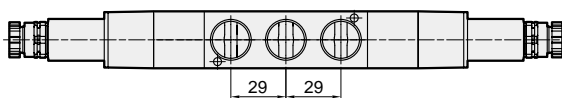
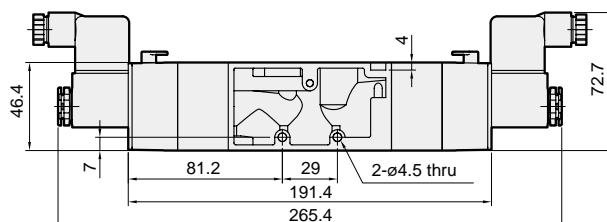
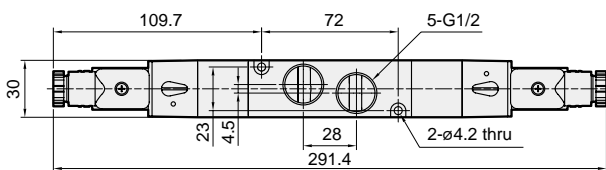
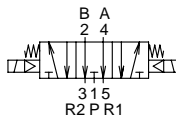
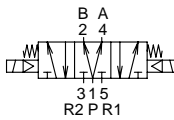
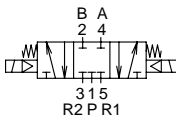


### MVSC-460-4E2C.P.R

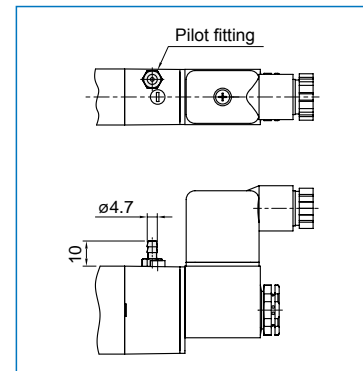
#### MVSC-460-4E2C

#### MVSC-460-4E2P

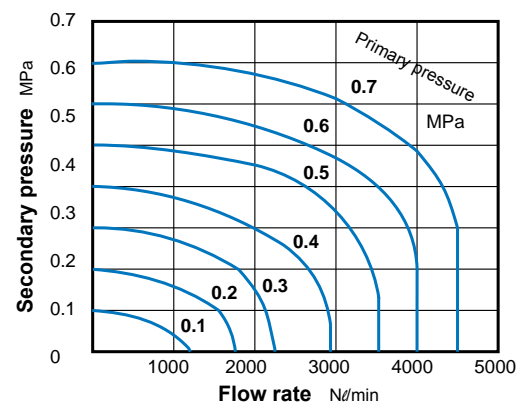
#### MVSC-460-4E2R



### LP



### Flow features

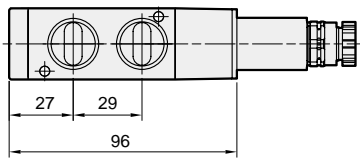
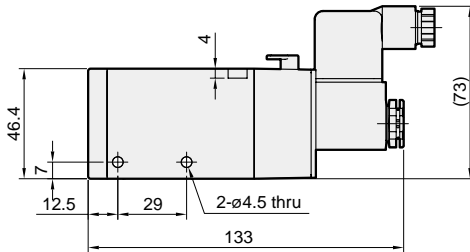
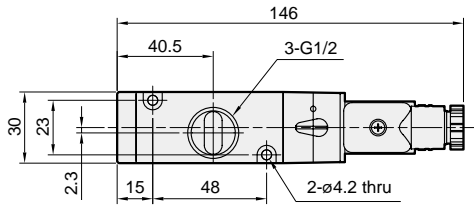
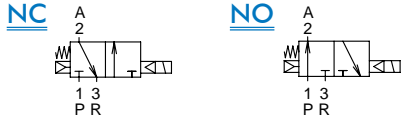


# MVSC-460 Dimensions

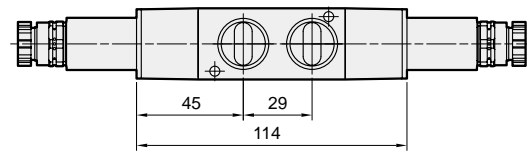
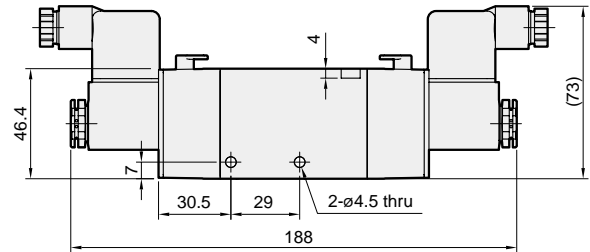
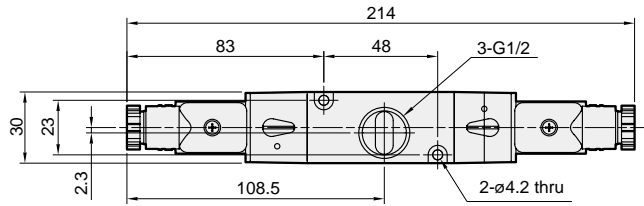
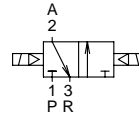
## SOLENOID VALVE



### MVSC-460-3E1-NC/NO



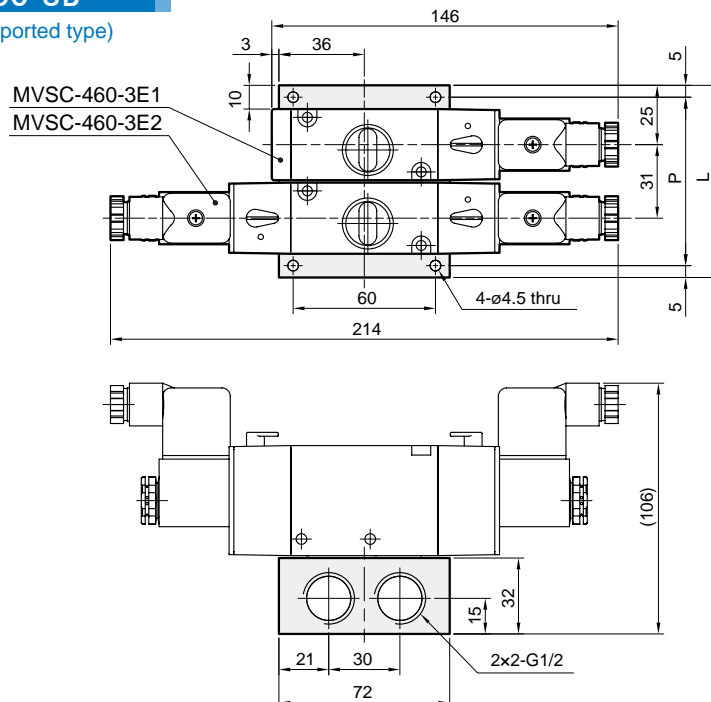
### MVSC-460-3E2



## Manifold of solenoid valve

### MVSC-460-3B\*

3 port (for body ported type)



No. of stations	P	L
2	71	81
3	102	112
4	133	143
5	164	174
6	195	205
7	226	236
8	257	267
9	288	298
10	319	329

# MVSC-460 Manifold

## SOLENOID VALVE



(4.3) Solenoid Valve

(2) Solenoid Valve

Pilot & Mechanical Valve

Air Unit

Pressure Switch

Compressed Air Dryer

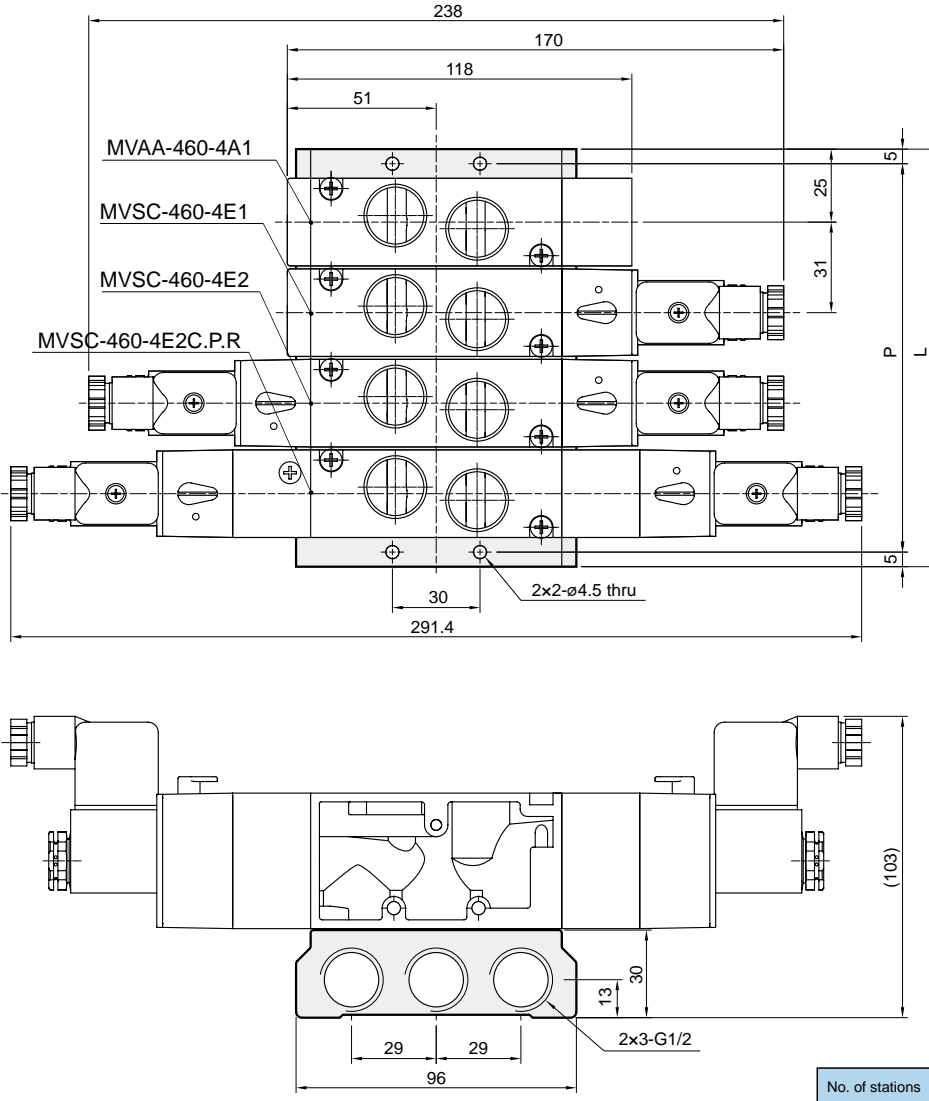
Auxiliary Equipment

PISCO®

PLC Control System

### MVSC-460-5B\*

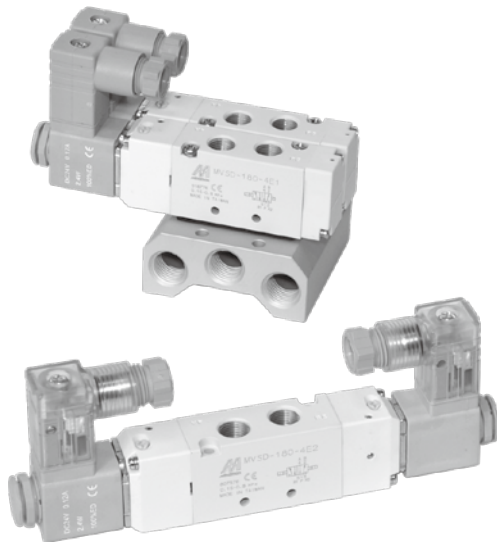
5 port (for body ported type)



No. of stations	P	L
2	71	81
3	102	112
4	133	143
5	164	174
6	195	205
7	226	236
8	257	267
9	288	298
10	319	329

# MVSD-180 series

## SOLENOID VALVE

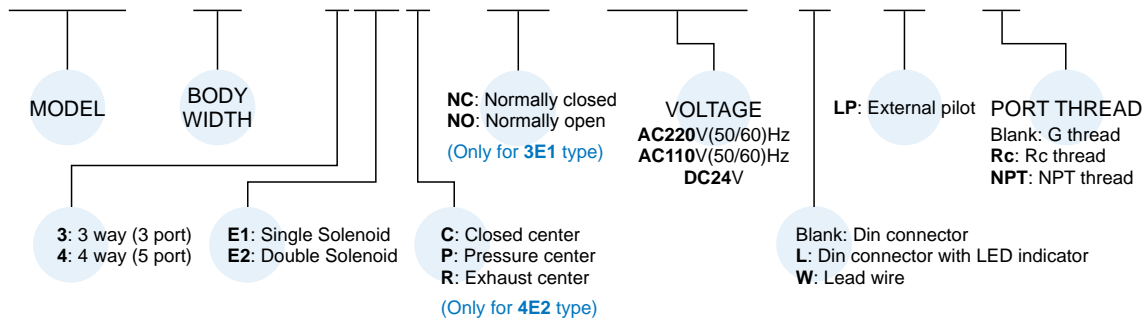


### Specification

Model	3E1	3E2	4E1	4E2	4E2 C.P.R
Bore No.	6A				
Port size	Rc1/8				
No. of port	3		5		
No. of position	2			3	
Medium	Air				
Operating pressure range	0.15~0.8 MPa			0.2~0.8 MPa	
Operating pressure (LP)	0~0.8 MPa			0~0.7 MPa	
External pilot pressure (LP)	0.15~0.8 MPa			0.2~0.7 MPa	
Proof pressure	1 MPa				
Effective orifice	15 mm <sup>2</sup>		12 mm <sup>2</sup>	9 mm <sup>2</sup>	
Response time	30 ms				
Ambient temperature	-5~+50°C (No freezing)				
Voltage	AC110V, 220V (50/60)Hz, DC24V				
Power consumption	AC=3.7/3.1VA, DC=3W				
Available voltage range	±10%				
Insulation class	F class				
Weight	120 g	172 g	124 g	176 g	190 g

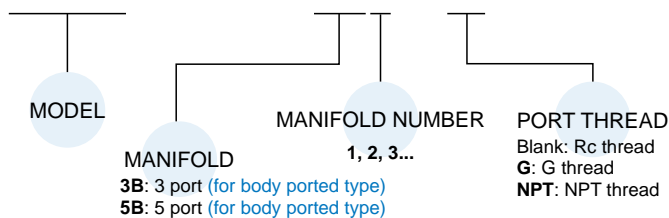
### Order example of valve

**MVSD – 180 – 4E2C – NC – AC110 – L – LP – G**



### Order example of manifold

**MVSP – 180 – 3B3 – G**

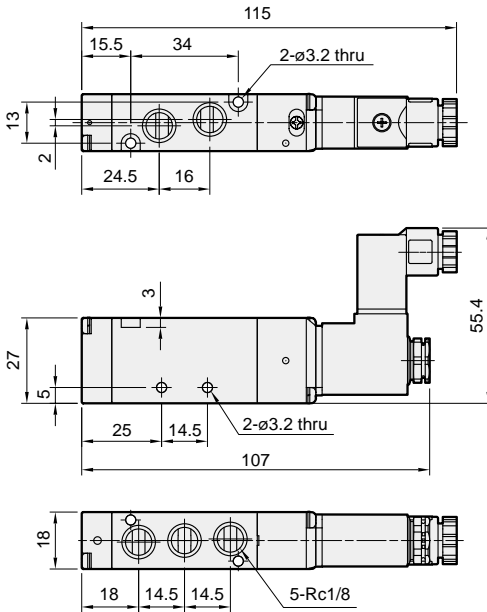
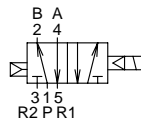


# MVSD-180 Dimensions

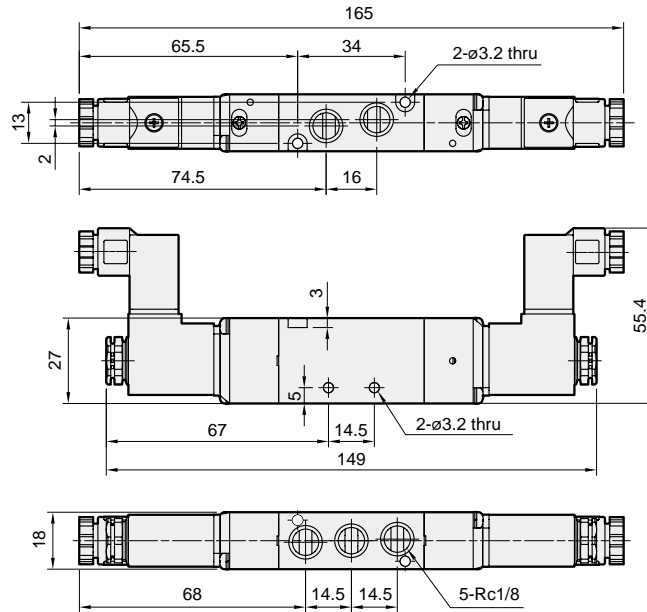
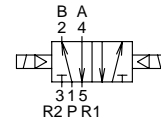
## SOLENOID VALVE



### MVSD-180-4E1



### MVSD-180-4E2

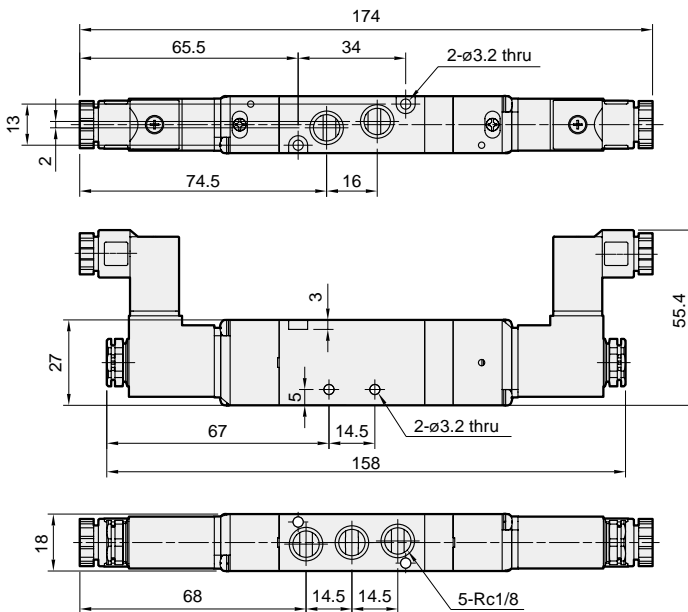
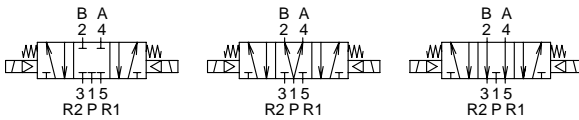


### MVSD-180-4E2C.PR

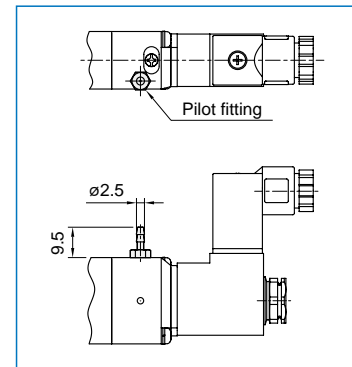
#### MVSD-180-4E2C

#### MVSD-180-4E2P

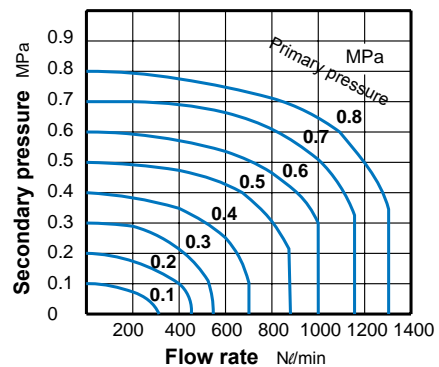
#### MVSD-180-4E2R



### LP



### Flow features



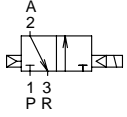
# MVSD-180 Dimensions

## SOLENOID VALVE

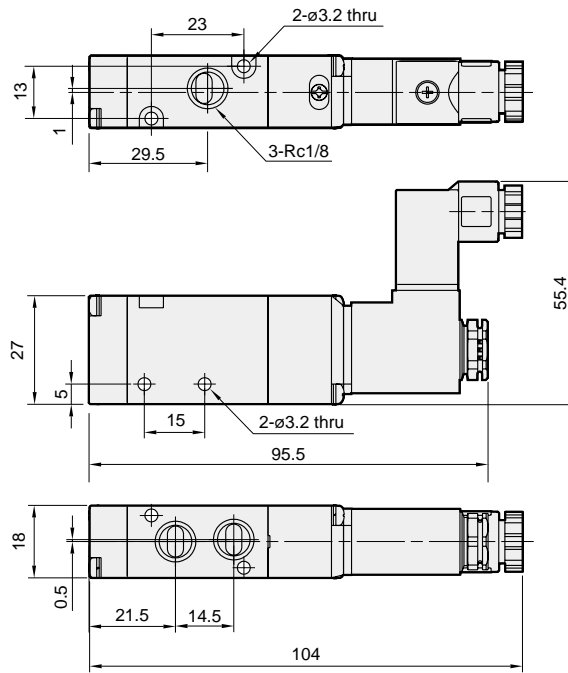
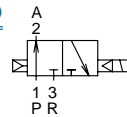


### MVSD-180-3E1-NC/NO

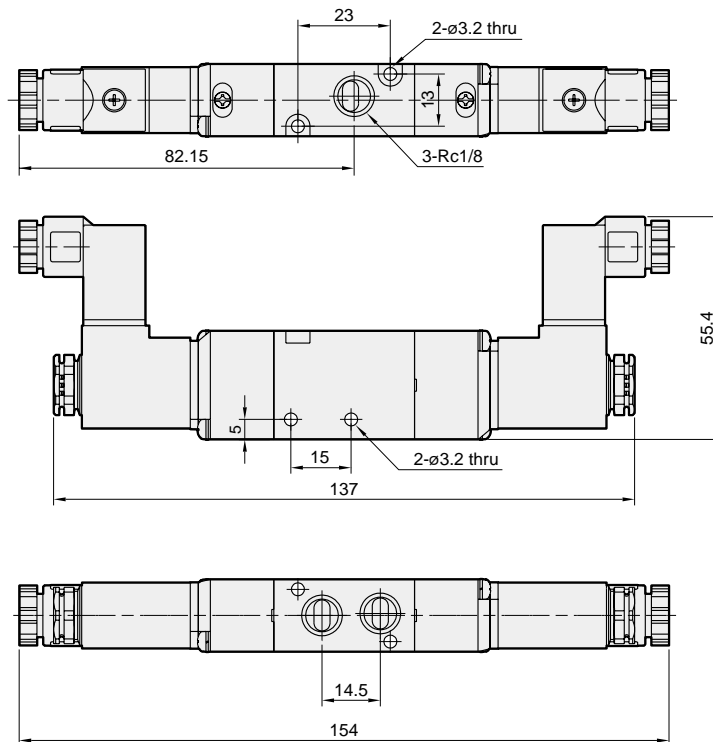
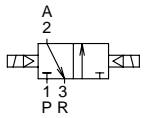
NC



NO



### MVSD-180-3E2



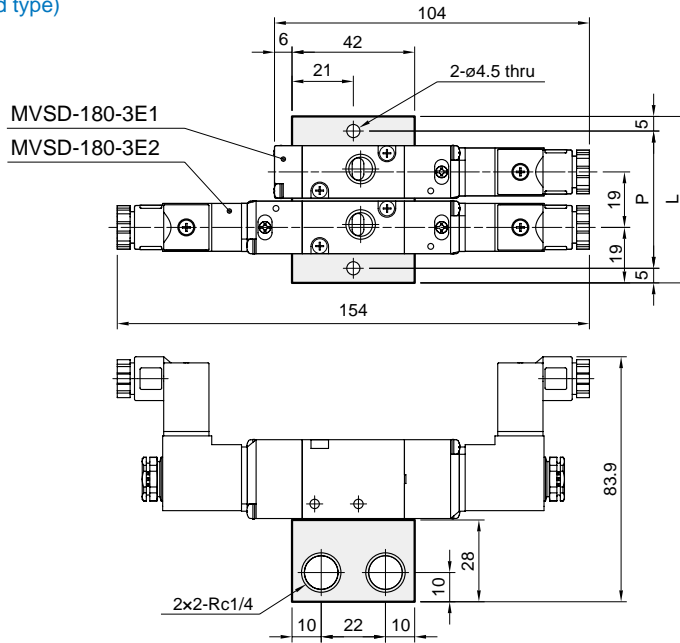
# MVSD-180 Manifold

## SOLENOID VALVE



### MVSP-180-3B\*

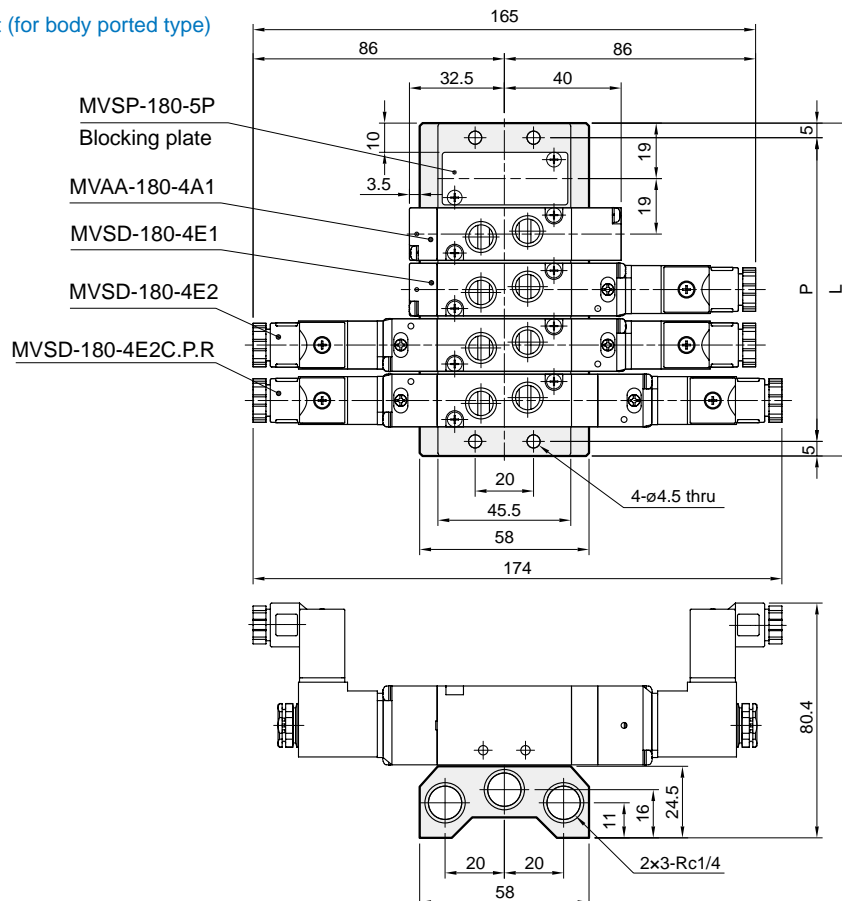
3 port (for body ported type)



No. of stations	P	L
2	47	57
3	66	76
4	85	95
5	104	114
6	123	133
7	142	152
8	161	171
9	180	190
10	199	209

### MVSP-180-5B\*

5 port (for body ported type)



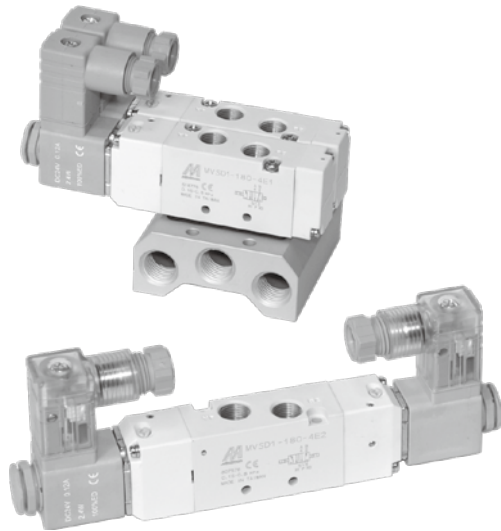
No. of stations	P	L
2	47	57
3	66	76
4	85	95
5	104	114
6	123	133
7	142	152
8	161	171
9	180	190
10	199	209

# MVSD1-180 series

## SOLENOID VALVE



Mindman

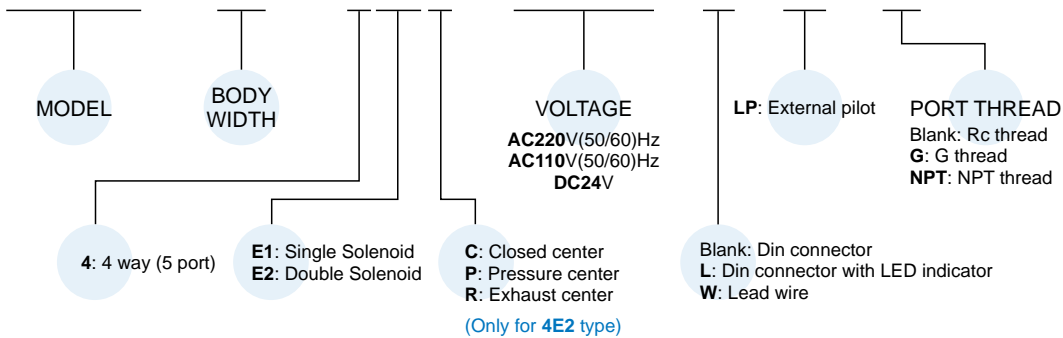


### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	6A		
Port size	Rc1/8		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating pressure range	0.15~0.8 MPa	0.2~0.7 MPa	
Operating pressure (LP)	0~0.8 MPa	0~0.7 MPa	
External pilot pressure (LP)	0.15~0.8 MPa	0.2~0.7 MPa	
Proof pressure	1 MPa		
Effective orifice	12 mm <sup>2</sup>	9 mm <sup>2</sup>	
Response time	30 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24V		
Power consumption	AC=3.7/3.1VA, DC=2.9W		
Available voltage range	±10%		
Insulation class	F class		
Weight	124 g	176 g	190 g

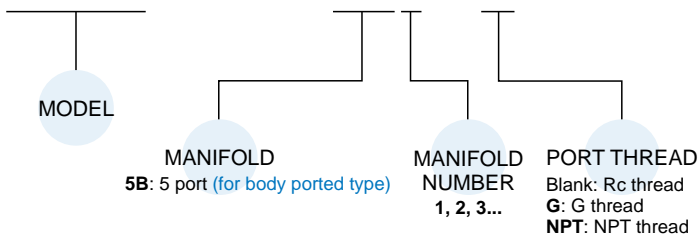
### Order example of valve

MVSD1 - 180 - 4E2C - AC110 - L - LP - G



### Order example of manifold

MVSD1 - 180 - 5B3 - G



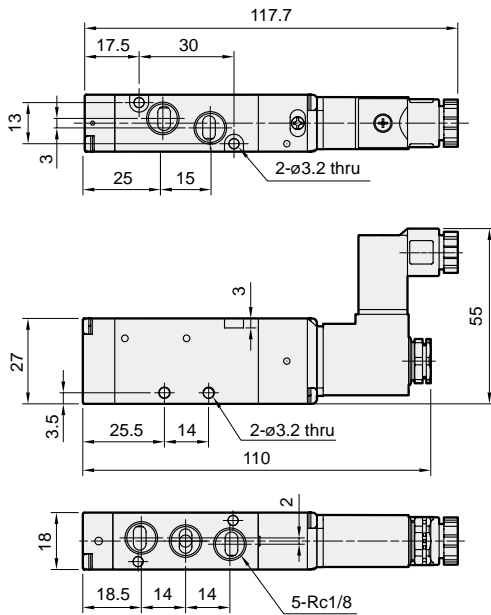
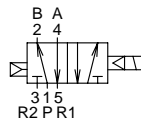


# MVSD1-180 Dimensions

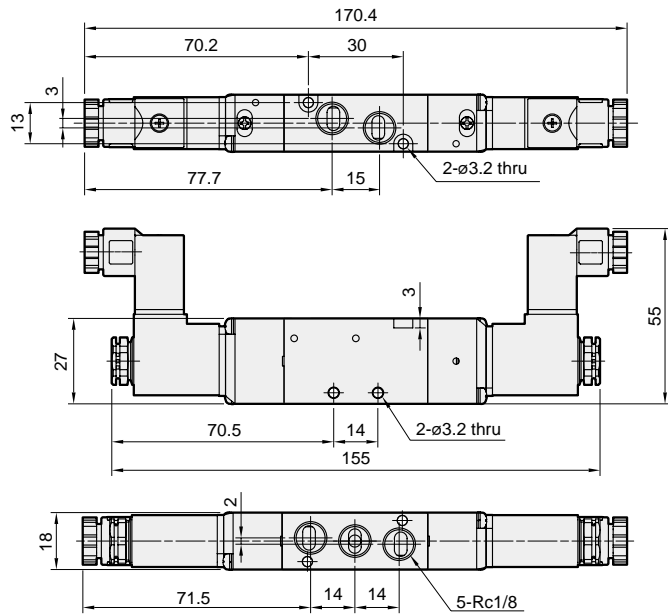
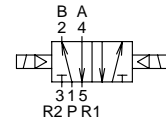
## SOLENOID VALVE



### MVSD1-180-4E1

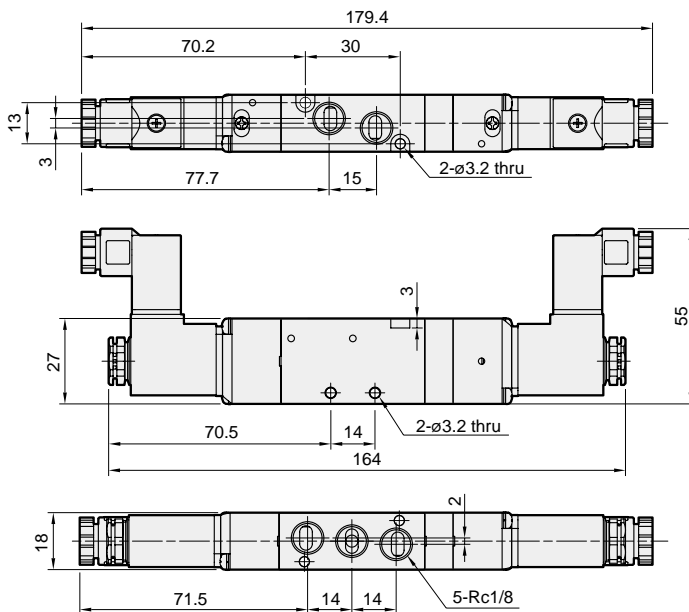
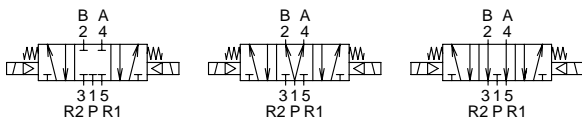


### MVSD1-180-4E2

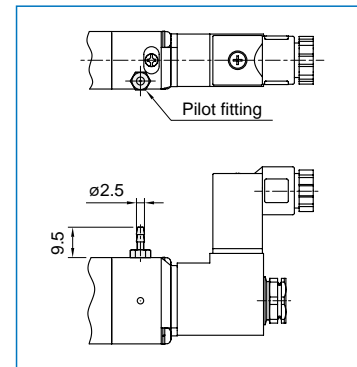


### MVSD1-180-4E2C.PR

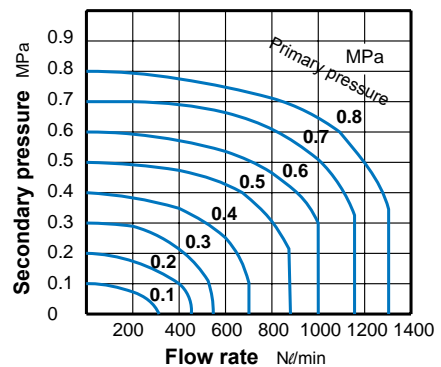
#### MVSD1-180-4E2C MVSD1-180-4E2P MVSD1-180-4E2R



### LP



### Flow features



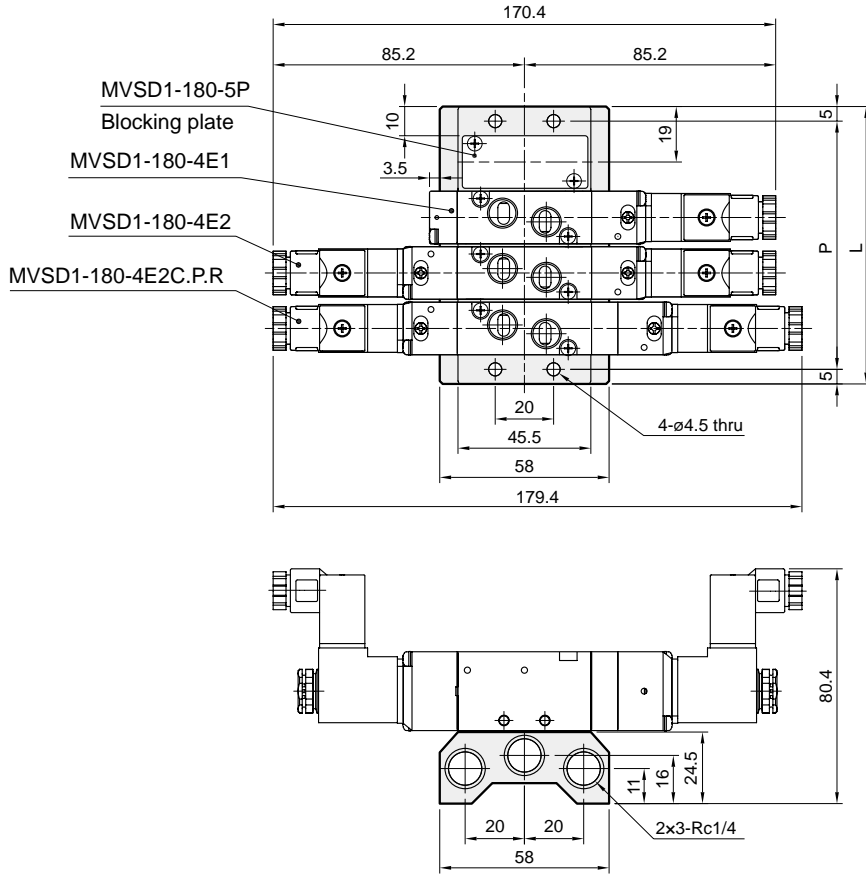
# MVSD1-180 Manifold

SOLENOID VALVE

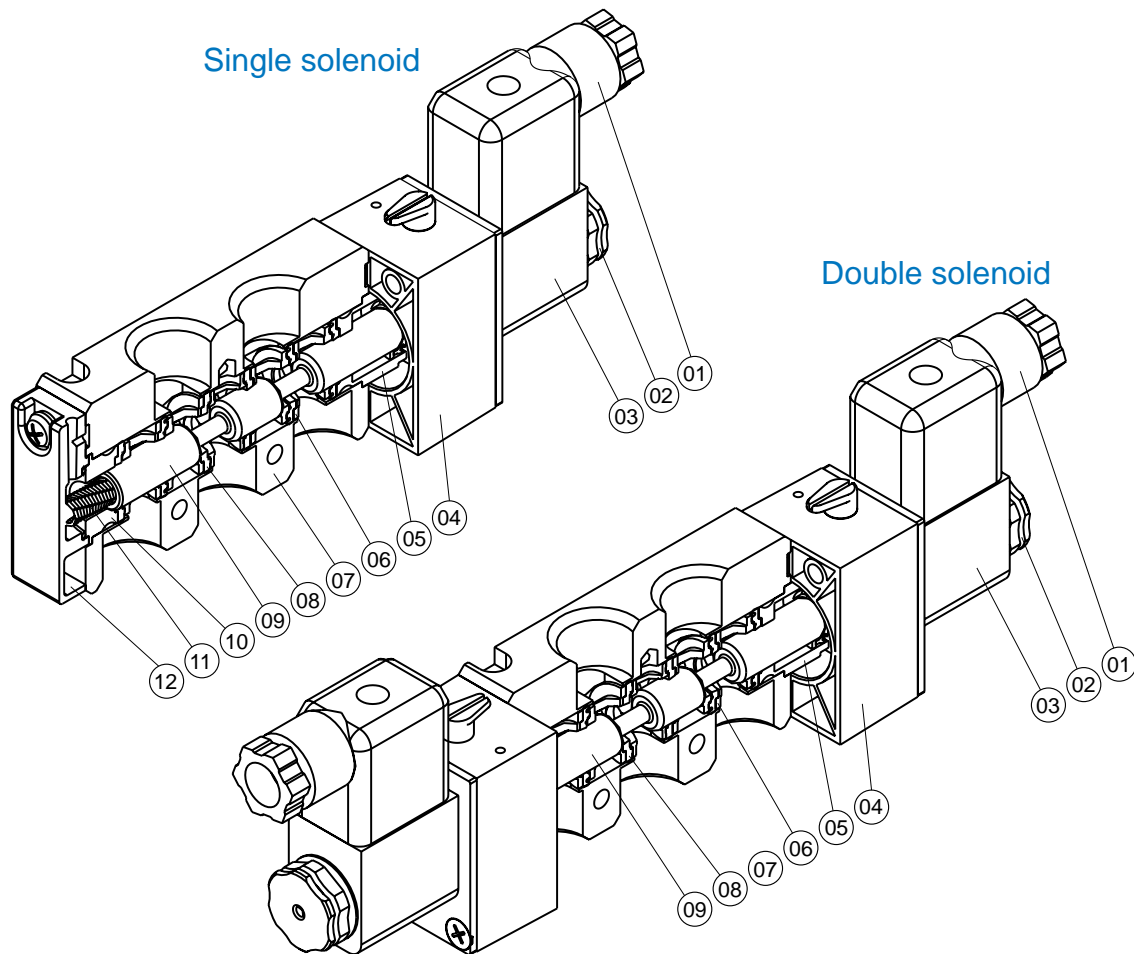


## MVSD1-180-5B\*

5 port (for body ported type)



No. of stations	P	L
2	47	57
3	66	76
4	85	95
5	104	114
6	123	133
7	142	152
8	161	171
9	180	190
10	199	209



### Material

No.	Part name	Material
1	Terminal assy.	
2	Coil nut	POM
3	Coil assy.	
4	Pilot body	POM
5	Piston guide seat	Brass
6	Packing seat	Plastic
7	Body	Aluminum alloy
8	Spool valve packing	PU
9	Spool valve	Aluminum alloy
10	Locating ring	Brass
11	Spool valve spring	Stainless steel
12	End cover	Zinc

### Features

- Max. operating pressure 1.2 MPa.

# MVSE-260 series

## SOLENOID VALVE



Mindman



### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	8A		
Port size	Rc1/4		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.2~1.2 MPa	0.3~1.2 MPa	
Proof pressure	1 MPa		
Effective orifice	18 mm <sup>2</sup>	16 mm <sup>2</sup>	
Reponse time	40 ms	35 ms	
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24V		
Power consumption	AC=6/4.9VA, DC=2W		
Available voltage range	±10%		
Insulation calss	F class		
Weight	255 g	350 g	405 g

### Order example of valve

**MVSE — 260 — 4E2C — AC110 — L — G**

MODEL

BODY WIDTH

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Blank: Din connector

L: Din connector with LED indicator  
E: Explosion protection (Table 1)

PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

4: 4 way (5 port)

E1: Single Solenoid  
E2: Double Solenoid

C: Closed center  
P: Pressure center  
R: Exhaust center  
(Only for 4E2 type)

Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V.(50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available valtage range	±10%
Insulation class	F class

### Order example of manifold

**MVSE — 260 — 5B3 — G**

MODEL

MANIFOLD

5B: 5 port (for body ported type)

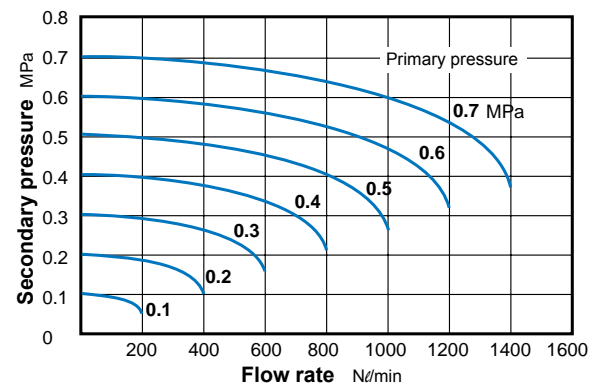
MANIFOLD NUMBER

1, 2, 3...

PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

### Flow features

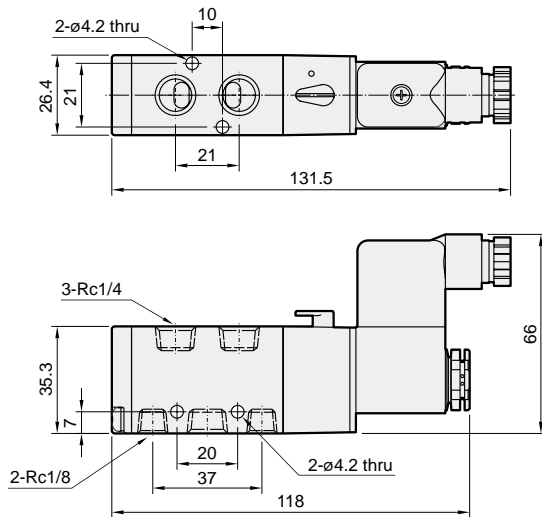
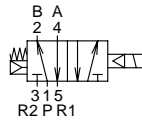


# MVSE-260 Dimensions

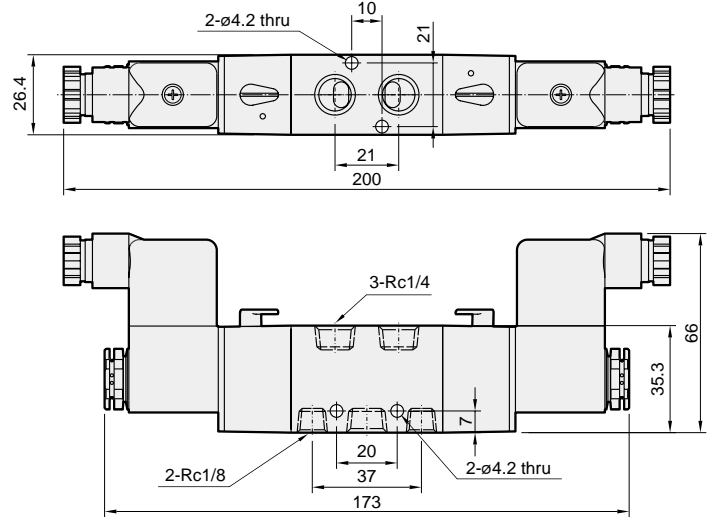
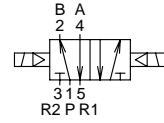
## SOLENOID VALVE



### MVSE-260-4E1



### MVSE-260-4E2

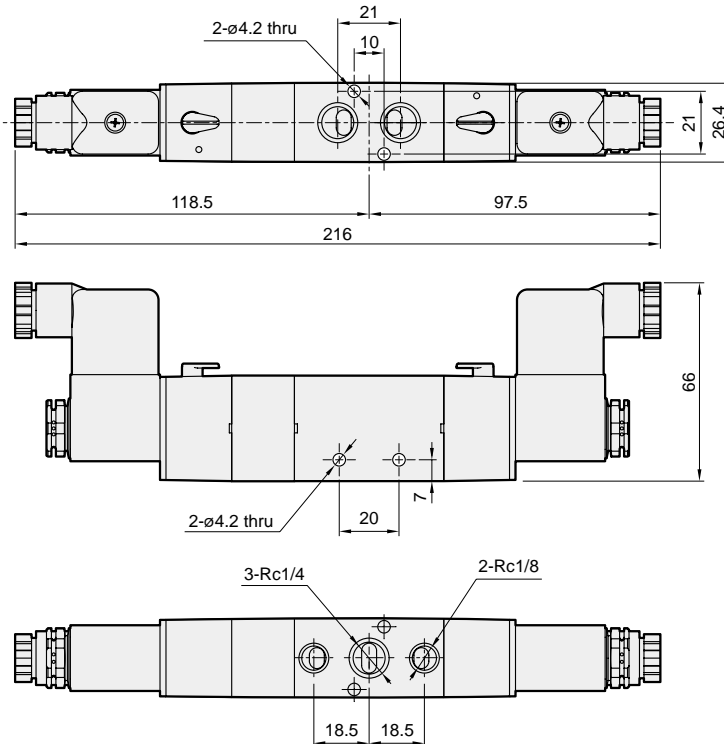
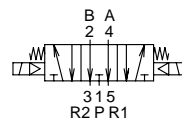
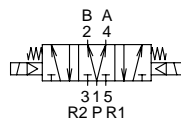
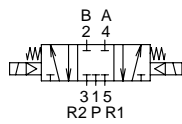


### MVSE-260-4E2C.P.R

#### MVSE-260-4E2C

#### MVSE-260-4E2P

#### MVSE-260-4E2R



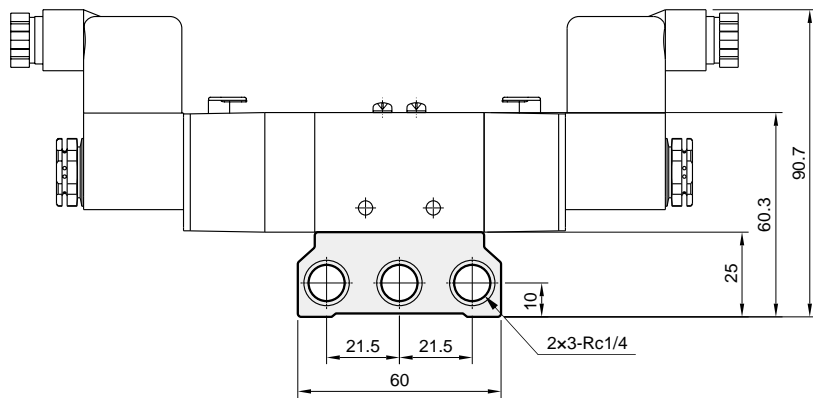
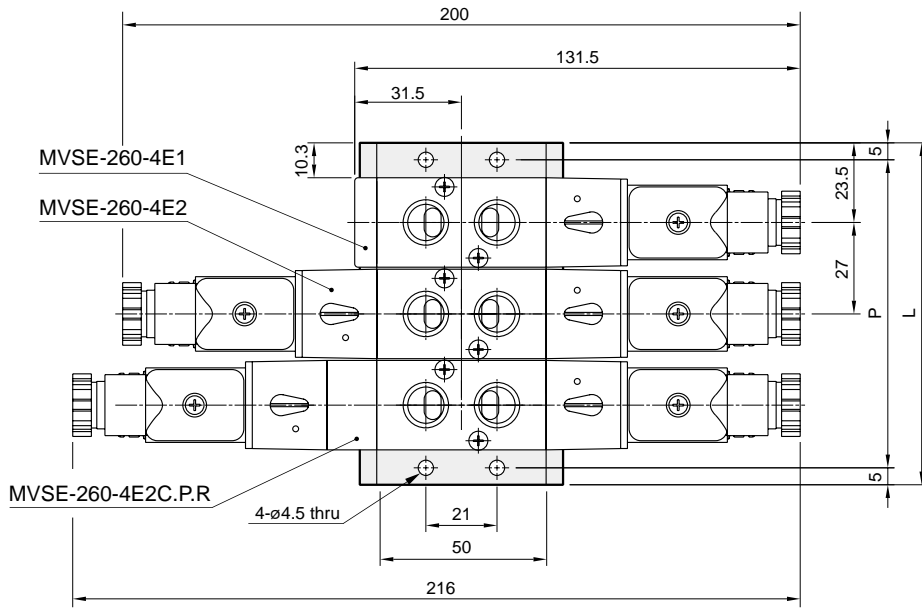
# MVSE-260 Manifold

## SOLENOID VALVE



### MVSE-260-5B\*

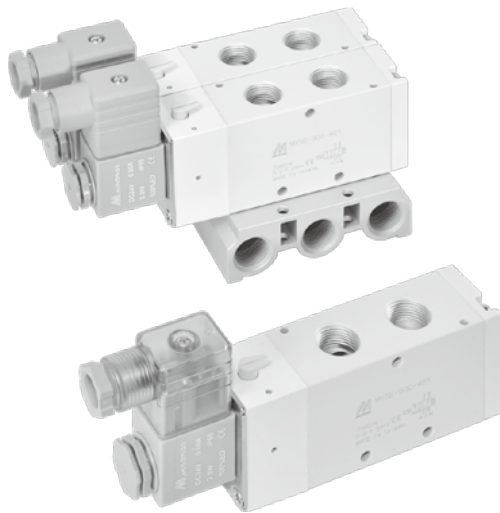
5 port (for body ported type)



No. of stations	P	L
2	64	74
3	91	101
4	118	128
5	145	155
6	172	182
7	199	209
8	226	236
9	253	263
10	280	290

# MVSE-300 series

## SOLENOID VALVE



### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	10A		
Port size	Rc3/8		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.2~1.2 MPa	0.3~1.2 MPa	
Proof pressure	1.5 MPa		
Effective orifice	35 mm <sup>2</sup>	34.5 mm <sup>2</sup>	
Reponse time	50 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24V		
Power consumption	AC=6/4.9VA, DC=2W		
Available voltage range	±10%		
Insulation calss	F class		
Weight	406 g	508 g	577 g

### Order example of valve

**MVSE — 300 — 4E2C — AC110 — L — G**

MODEL

BODY WIDTH

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Blank: Din connector  
L: Din connector with LED indicator  
E: Explosion protection (Table 1)  
(E type use black coil)

PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

4: 4 way (5 port)

E1: Single Solenoid  
E2: Double Solenoid

C: Closed center  
P: Pressure center  
R: Exhaust center  
(Only for 4E2 type)

Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V.(50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available valtage range	±10%
Insulation class	F class

### Order example of manifold

**MVSE — 300 — 5B3 — G**

MODEL

MANIFOLD

5B: 5 port (for body ported type)

MANIFOLD NUMBER

1, 2, 3...

PORT THREAD

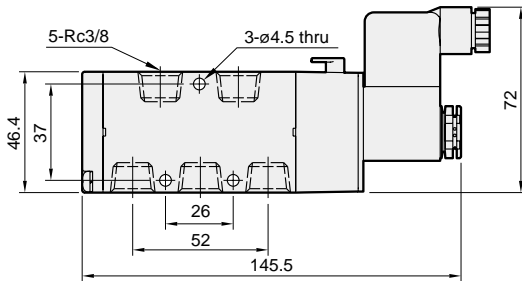
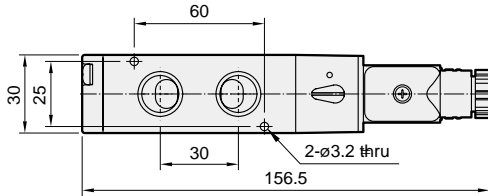
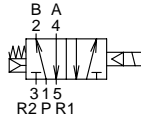
Blank: Rc thread  
G: G thread  
NPT: NPT thread

# MVSE-300 Dimensions

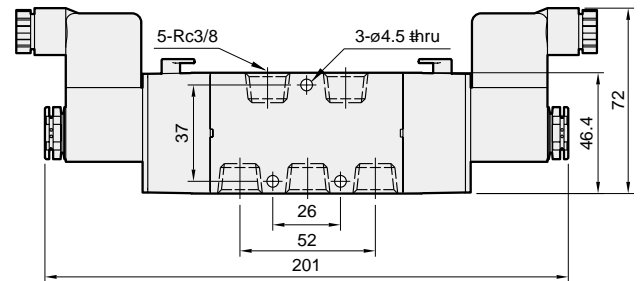
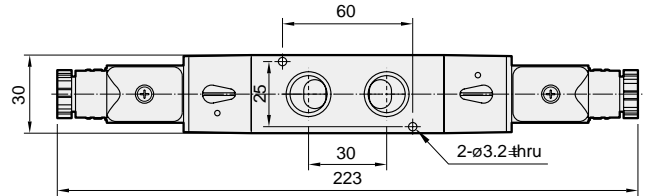
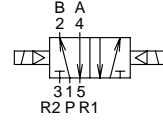
## SOLENOID VALVE



### MVSE-300-4E1



### MVSE-300-4E2

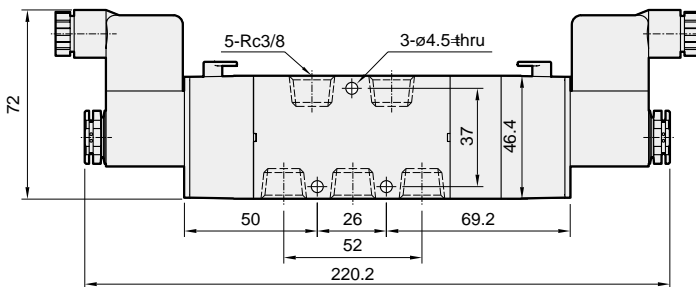
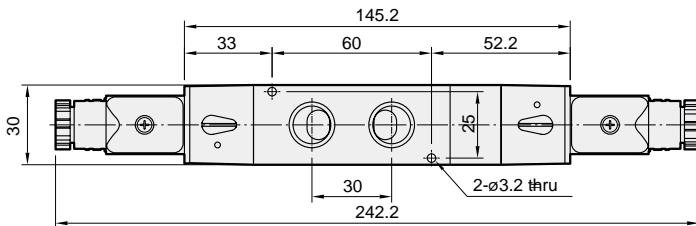
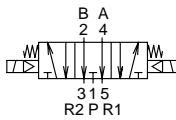
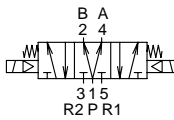
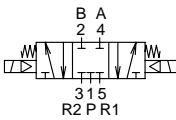


### MVSE-300-4E2C.PR

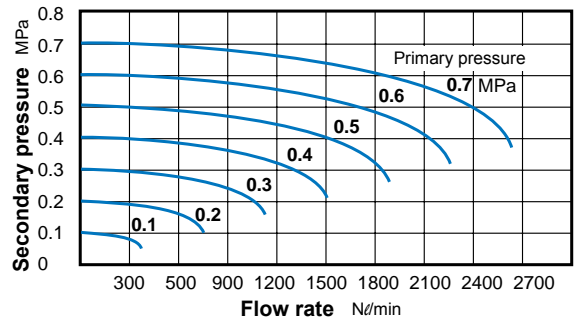
#### MVSE-300-4E2C

#### MVSE-300-4E2P

#### MVSE-300-4E2R



### Flow features





# MVSE-300 Manifold

## SOLENOID VALVE



(4.3) Solenoid Valve

(2) Solenoid Valve

Pilot & Mechanical Valve

Air Unit

Pressure Switch

Compressed Air Dryer

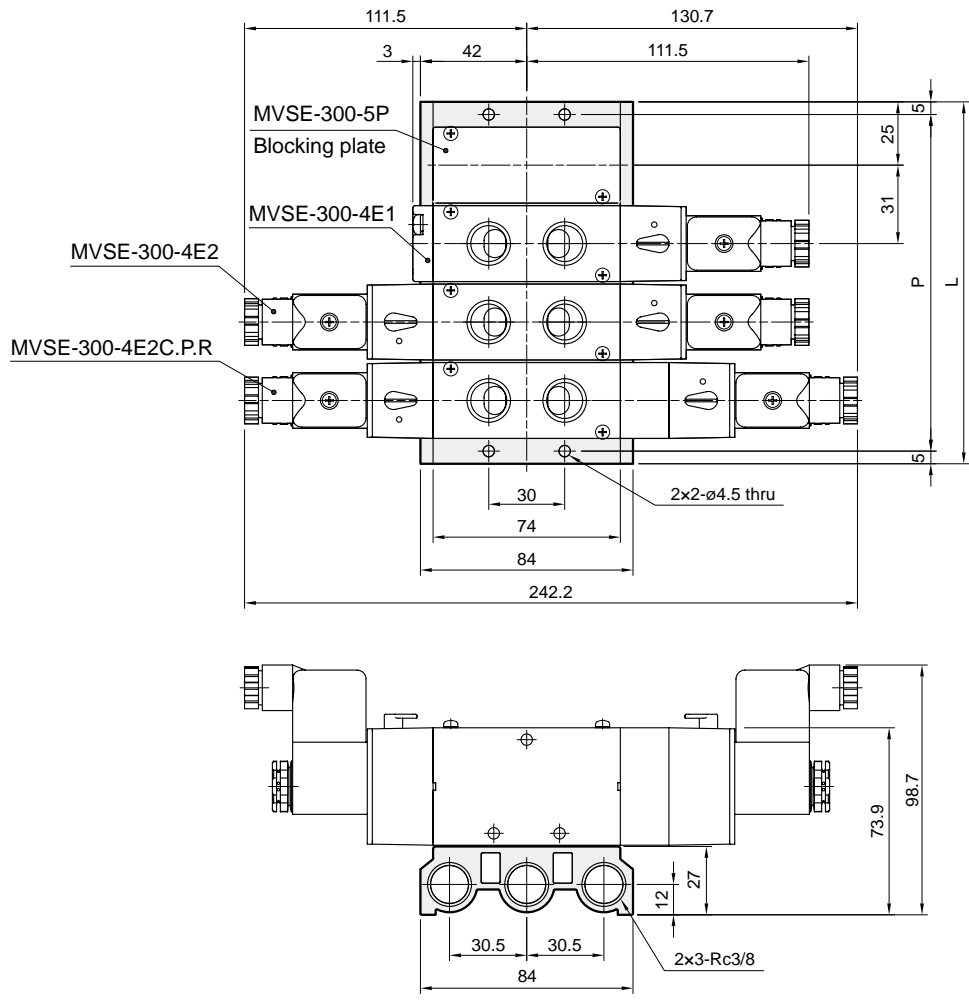
Auxiliary Equipment

PISCO®

PLC Control System

### MVSE-300-5B\*

5 port (for body ported type)



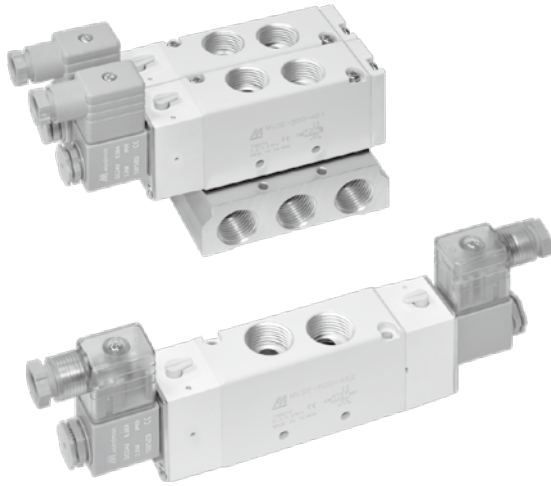
No. of stations	P	L
2	71	81
3	102	112
4	133	143
5	164	174
6	195	205
7	226	236
8	257	267
9	288	298
10	319	329

# MVSE-500 series

## SOLENOID VALVE



Mindman



### Specification

Model	4E1	4E2
Bore No.	15A	
Port size	Rc1/2	
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.2~1.2 MPa	
Proof pressure	1.5 MPa	
Effective orifice	41 mm <sup>2</sup>	
Response time	50 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24V	
Power consumption	AC=6/4.9VA, DC=2W	
Available voltage range	±10%	
Insulation class	F class	
Weight	453 g	554 g

### Order example of valve

**MVSE — 500 — 4E2 — AC110 — L — G**

MODEL

BODY WIDTH

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Blank: Din connector

L: Din connector with LED indicator

E: Explosion protection (Table 1)

(E type use black coil)

PORT THREAD

Blank: Rc thread

G: G thread

NPT: NPT thread

4: 4 way (5 port)

E1: Single Solenoid  
E2: Double Solenoid

Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

### Order example of manifold

**MVSE — 500 — 5B3 — G**

MODEL

MANIFOLD

5B: 5 port (for body ported type)

MANIFOLD NUMBER

1, 2, 3...

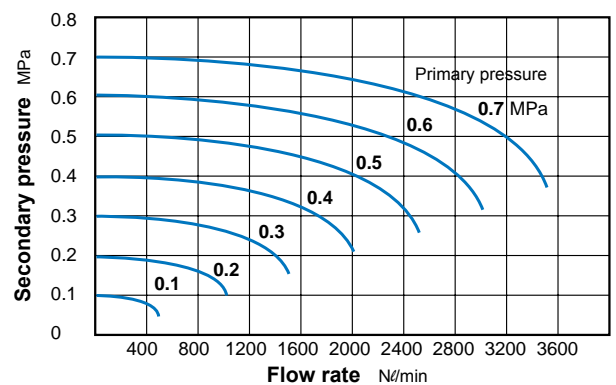
PORT THREAD

Blank: Rc thread

G: G thread

NPT: NPT thread

### Flow features

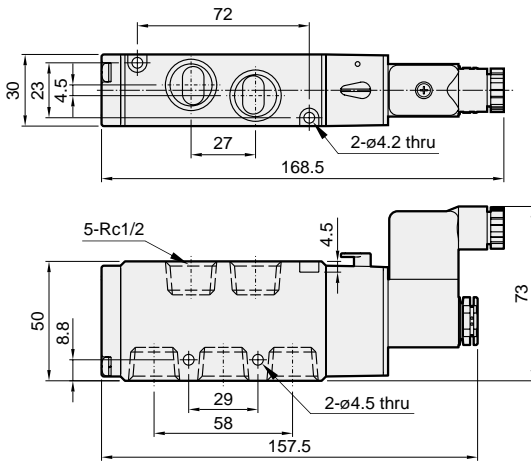
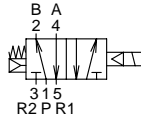


# MVSE-500 Dimensions / Manifold

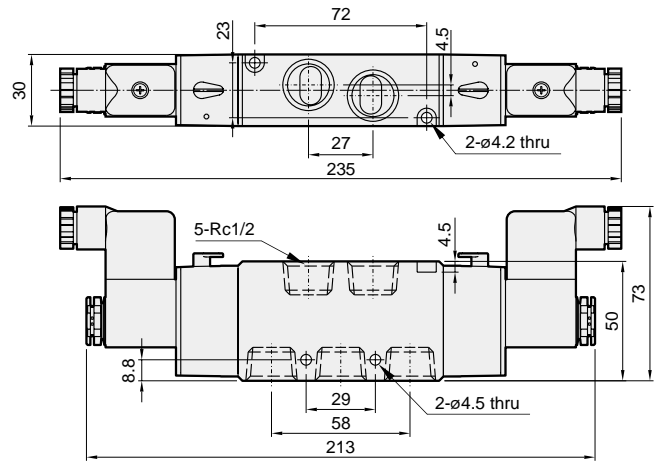
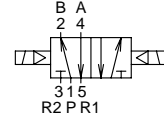
## SOLENOID VALVE



### MVSE-500-4E1



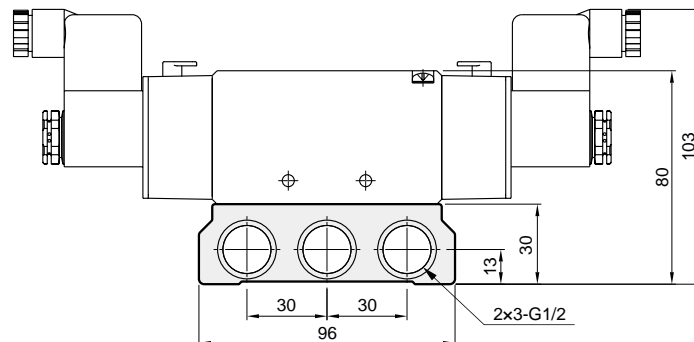
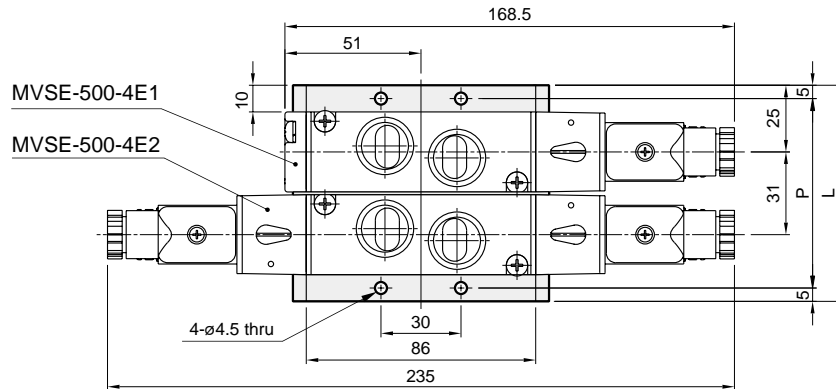
### MVSE-500-4E2



## Manifold of solenoid valve

### MVSE-500-5B\*

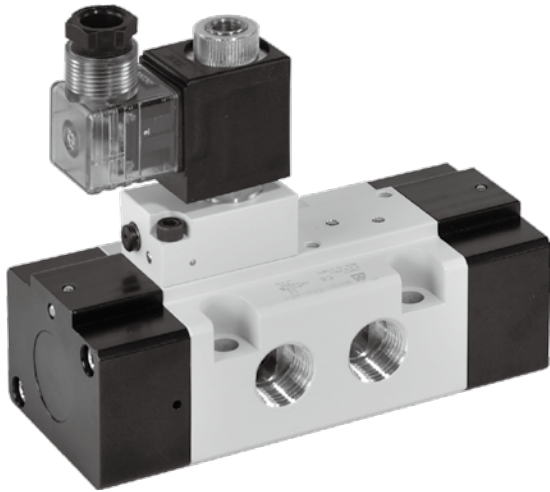
5 port (for body ported type)



No. of stations	P	L
2	71	81
3	102	112
4	133	143
5	164	174
6	195	205
7	226	236
8	257	267
9	288	298
10	319	329

# MVSE-510 series

## SOLENOID VALVE



### Specification

Model	4E1	4E2
Bore No.	15A	
Port size	Rc1/2	
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.2~0.7 MPa	
Proof pressure	1 MPa	
Effective orifice	65 mm <sup>2</sup>	
Response time	60 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24V	
Power consumption	AC=13/11VA, DC=10W	
Available voltage range	±10%	
Insulation class	F class	
Weight	1523 g	1808 g

### Order example of valve

**MVSE - 510 - 4E2 - AC110 - L - G**

MODEL

BODY WIDTH

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Blank: Din connector  
L: Din connector with LED indicator

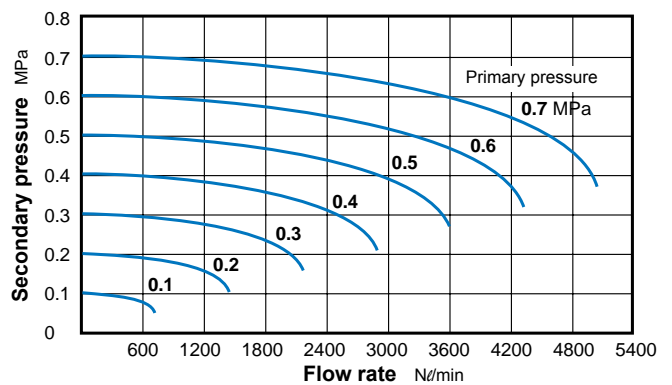
PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

4: 4 way (5 port)

E1: Single Solenoid  
E2: Double Solenoid

### Flow features

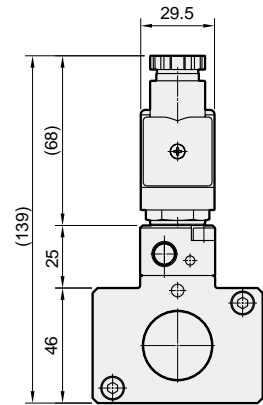
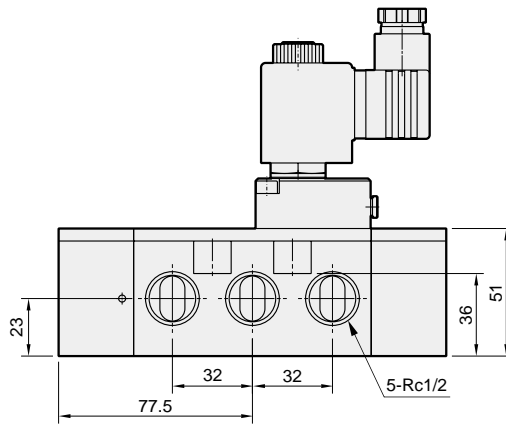
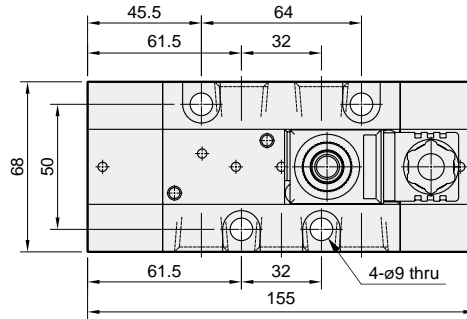
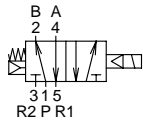


# MVSE-510 Dimensions / Manifold

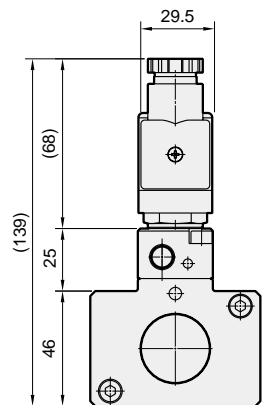
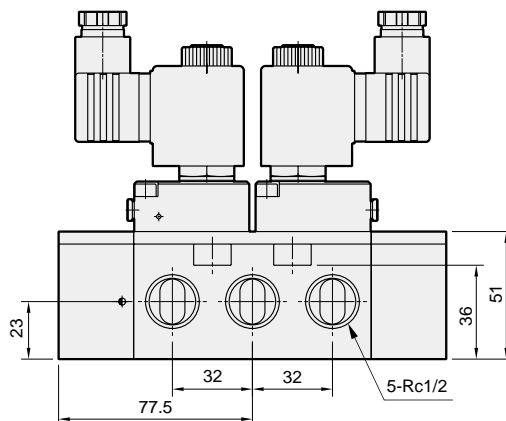
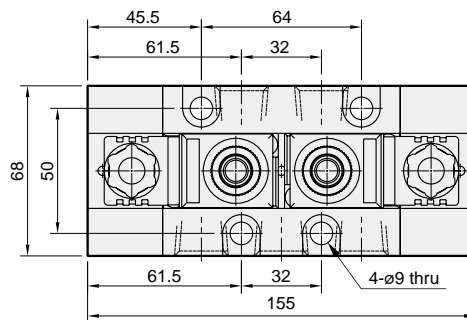
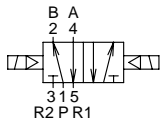
SOLENOID VALVE



## MVSE-510-4E1

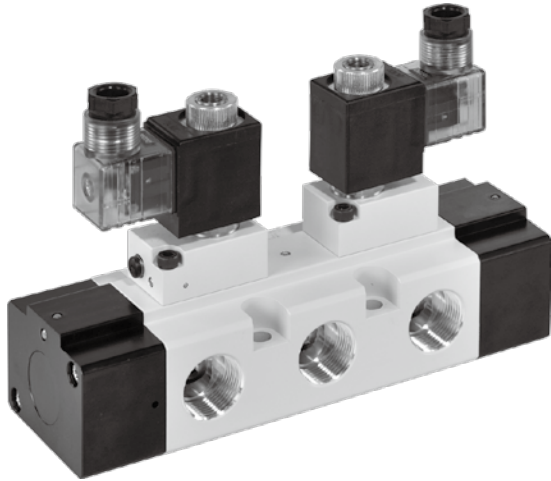


## MVSE-510-4E2



# MVSE-600 series

## SOLENOID VALVE



### Specification

Model	4E1	4E2
Bore No.	20A, 25A	
Port size	Rc3/4, Rc1	
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.2~0.7 MPa	
Proof pressure	1 MPa	
Effective orifice	20A: 96 mm <sup>2</sup> , 25A: 100 mm <sup>2</sup>	
Response time	80 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24V	
Power consumption	AC=13/11VA, DC=10W	
Available voltage range	±10%	
Insulation class	H class	
Weight	1817 g	2102 g

### Order example of valve

**MVSE – 600 – 4E2 – 25A – AC110 – L – G**

MODEL

BODY WIDTH

4: 4 way (5 port)

BORE SIZE

20A: Rc3/4  
25A: Rc1

E1: Single Solenoid  
E2: Double Solenoid

VOLTAGE

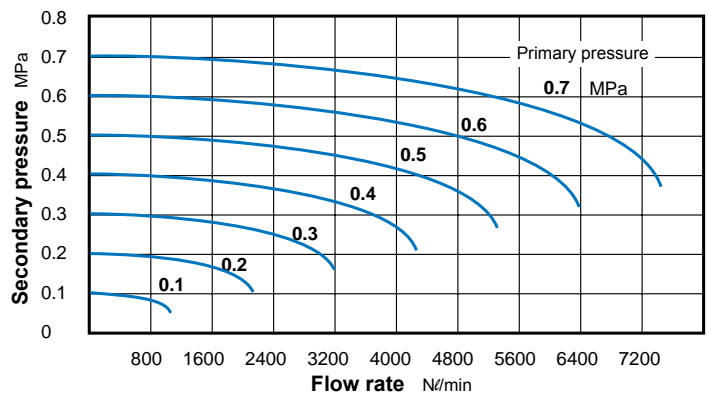
AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Blank: Din connector  
L: Din connector with LED indicator

PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

### Flow features

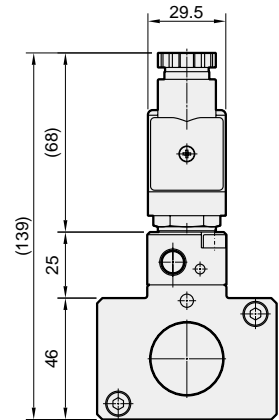
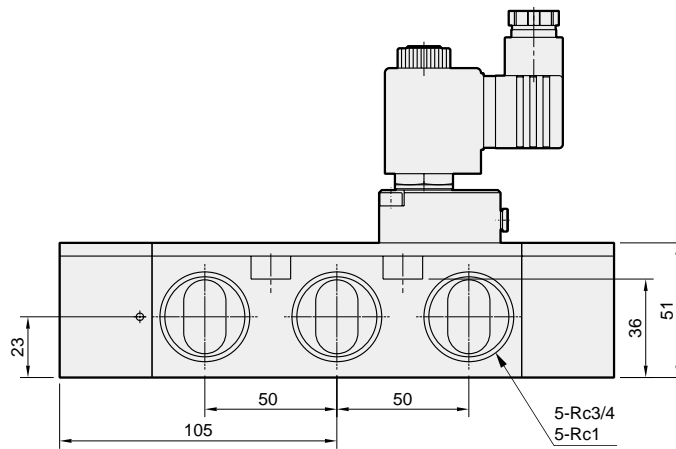
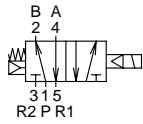
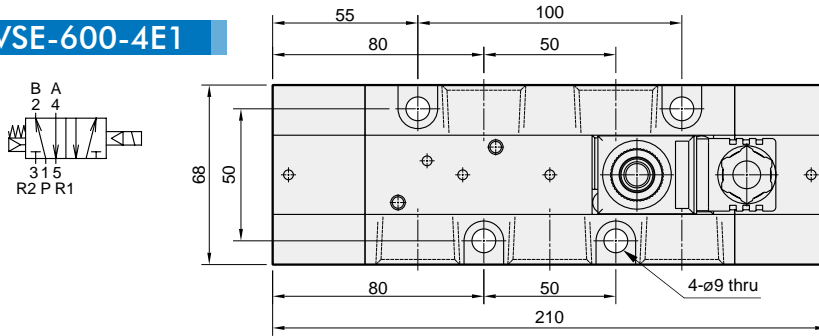


# MVSE-600 Dimensions

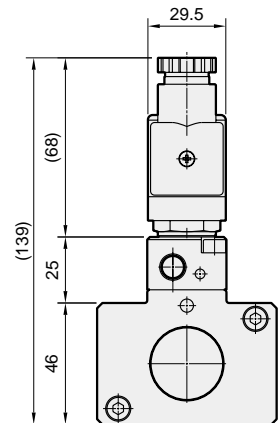
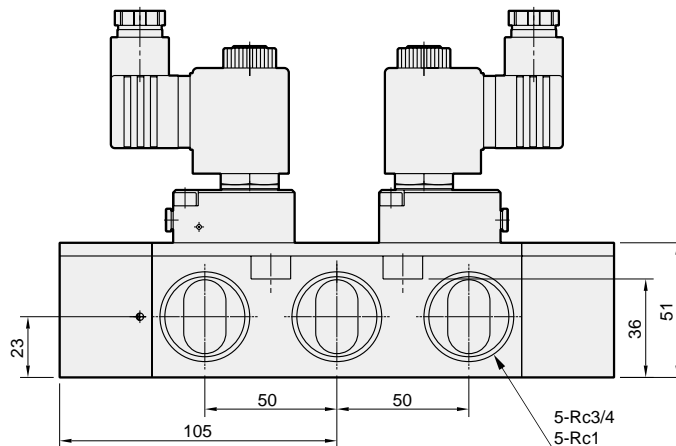
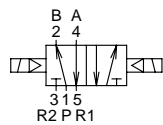
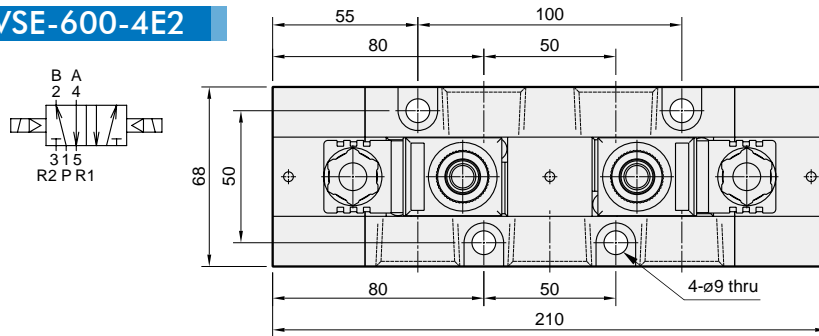
## SOLENOID VALVE



### MVSE-600-4E1

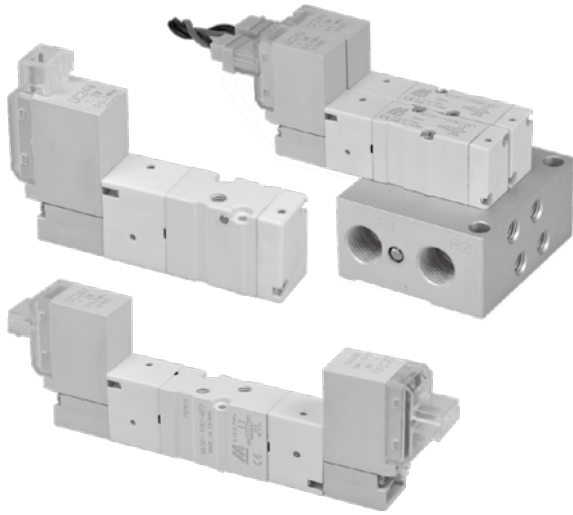


### MVSE-600-4E2



# MVSF-100 series

## SOLENOID VALVE



### Specification

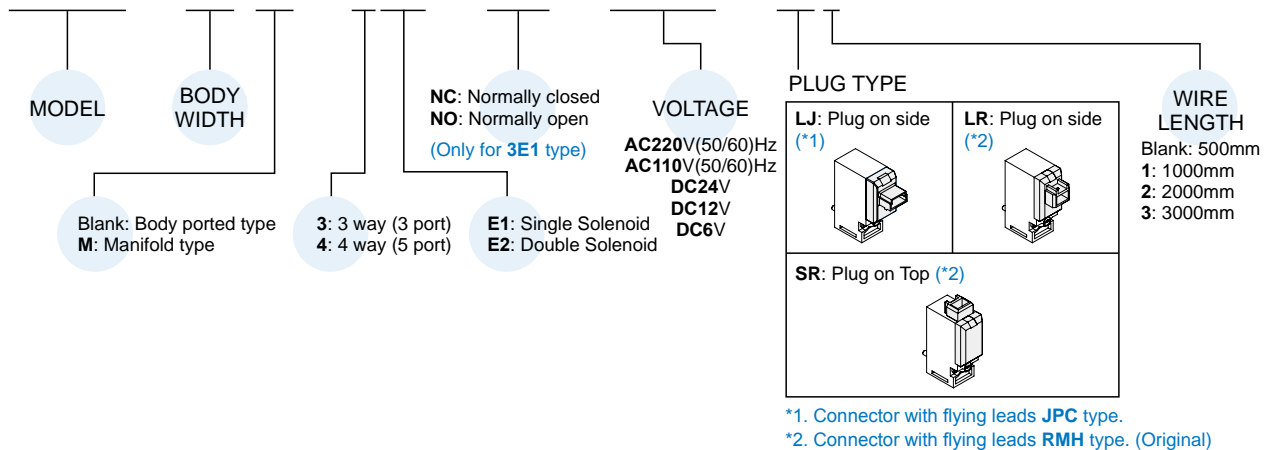
Model	3E1	3E2	4E1	4E2
Bore No.	M3			
Port size	M3x0.5			
No. of port	3		5	
No. of position	2			
Medium	Air			
Operating pressure range	0.15~0.7 MPa			
Effective orifice mm <sup>2</sup> (Cv)	P→A/B: 1.0 (0.06)			
Response time	12 ms			
Ambient temperature	+5~+50°C			
Lubrication	Not necessary			
Voltage	AC110V, 220V (50/60)Hz, DC6/12/24V			
Power consumption	AC=1.6/2.5VA, DC=0.55W (LED indicator)			
Surge voltage suppressor	Diode			
Available voltage range	±10%			
Insulation class	B class			
Weight	25 g	41 g	28 g	44 g

### Features

- **Low power consumption: 12W**
- **Compact design, large flow capacity**  
Cv factor for this series is 1.25 times large than conventional valve with the same body width.
- **Quick response time: 12ms**

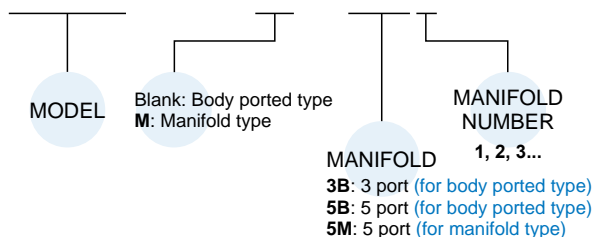
### Order example of valve

**MVSF – 100M – 4E2 – NC – DC12 – LJ1**



### Order example of manifold

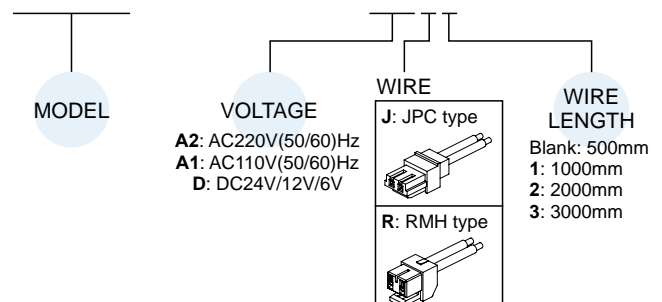
**MVSF – 100M – 5M3**



### Order example of wire

\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



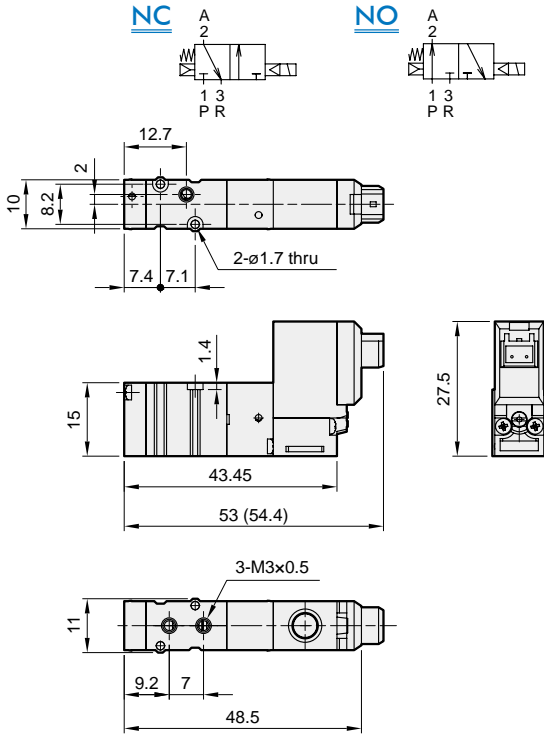


# MVSF-100 Dimensions / Manifold

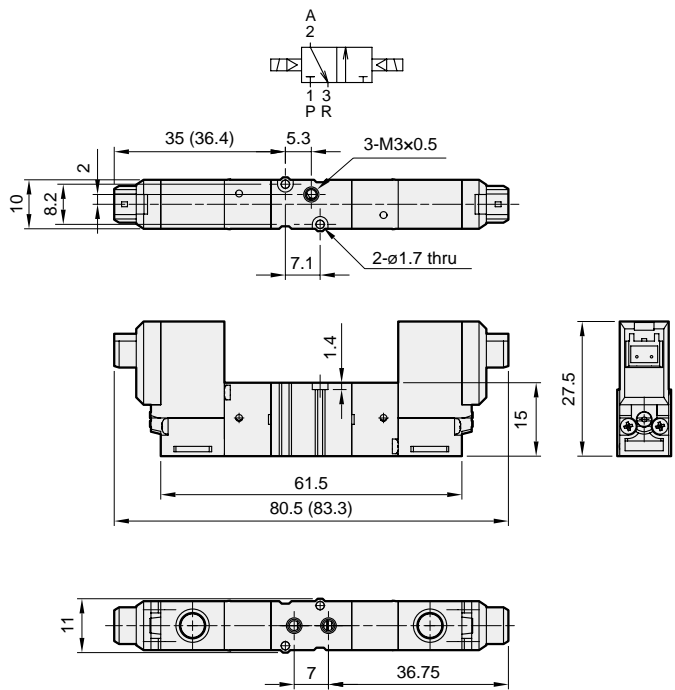
## SOLENOID VALVE



### MVSF-100-3E1-NC/NO



### MVSF-100-3E2

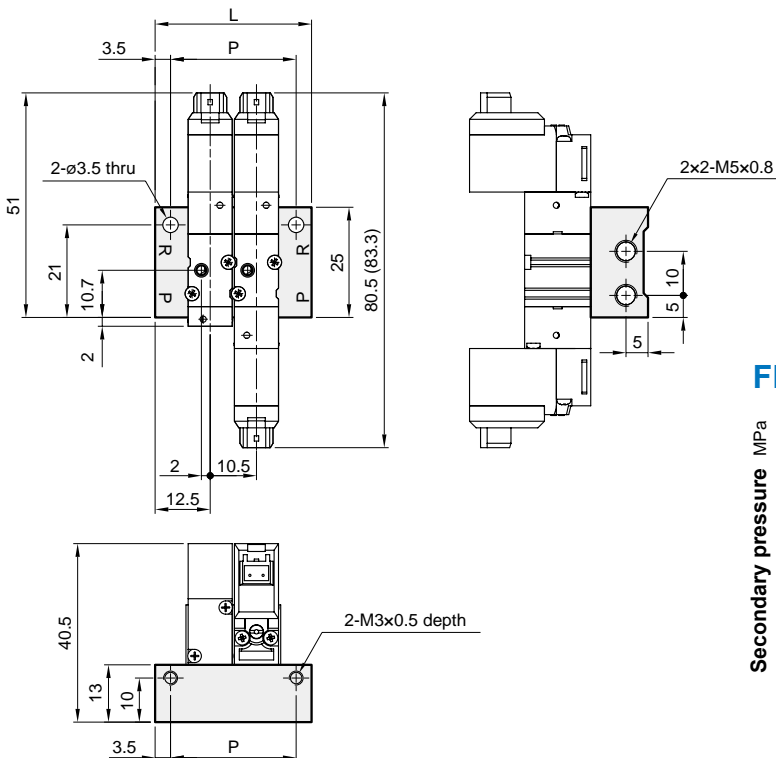


## Manifold of solenoid valve

### MVSF-100-3B\*

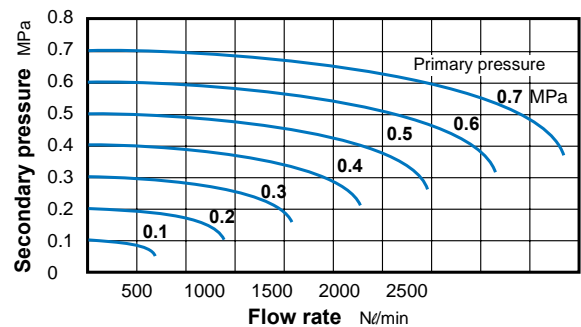
3 port (for body ported type)

( ) : Dimension for LJ plug type.



No. of stations	P	L
2	28.5	35.5
3	39	46
4	49.5	56.5
5	60	67
6	70.5	77.5
7	81	88
8	91.5	98.5
9	102	109
10	112.5	119.5

## Flow features

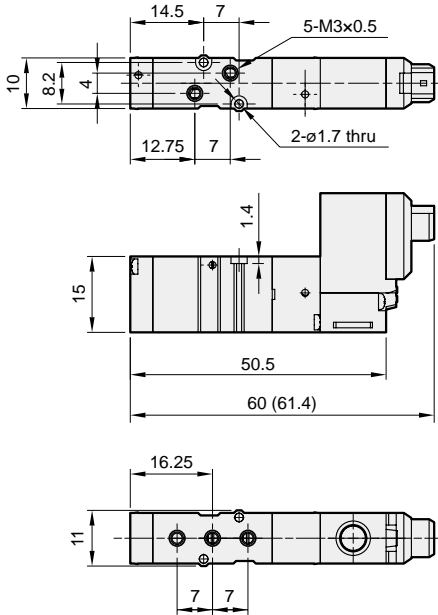
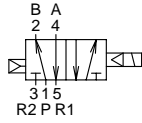


# MVSF-100 Dimensions / Manifold

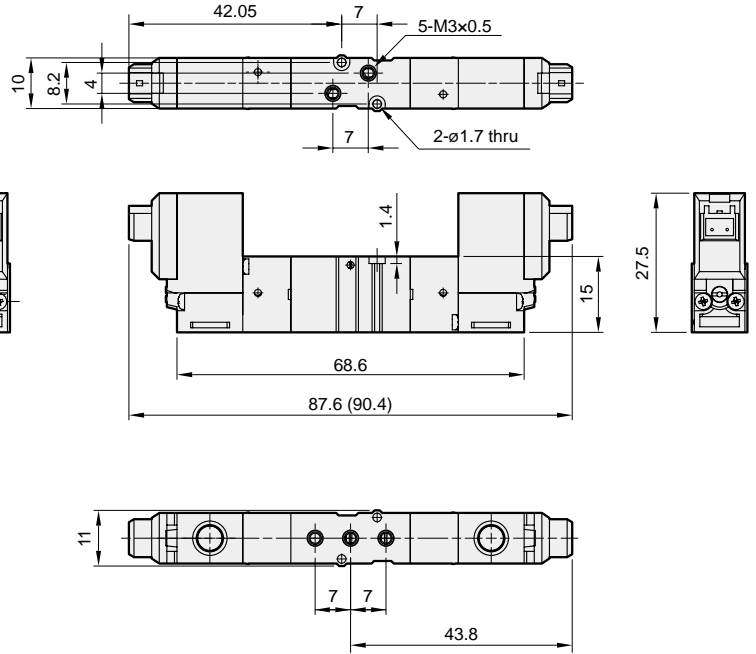
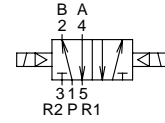
## SOLENOID VALVE



### MVSF-100-4E1



### MVSF-100-4E2

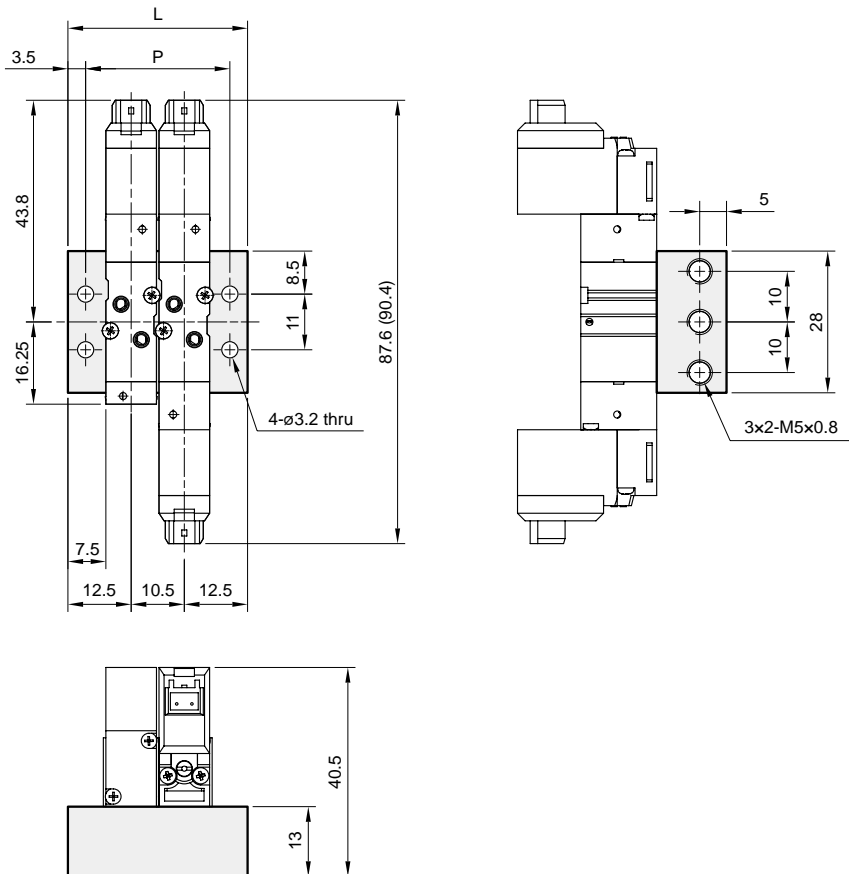


## Manifold of solenoid valve

### MVSF-100-5B\*

5 port (for body ported type)

No. of stations	P	L
2	28.5	35.5
3	39	46
4	49.5	56.5
5	60	67
6	70.5	77.5
7	81	88
8	91.5	98.5
9	102	109
10	112.5	119.5



( ): Dimension for LJ plug type.

# MVSF-100 Manifold

## SOLENOID VALVE



(4.3) Solenoid Valve

(2) Solenoid Valve

Pilot & Mechanical Valve

Air Unit

Pressure Switch

Compressed Air Dryer

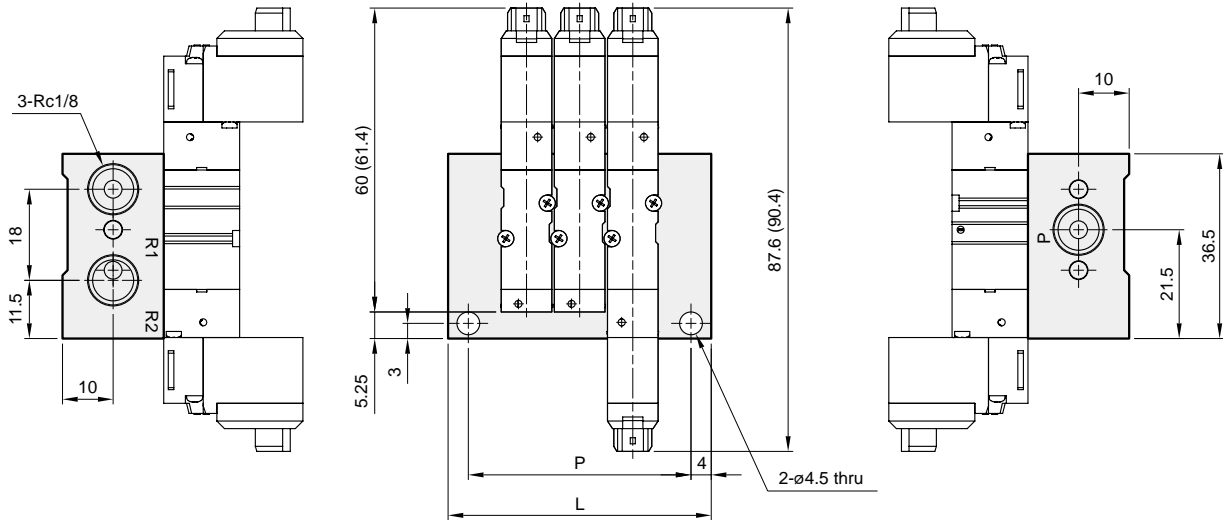
Auxiliary Equipment

PISCO®

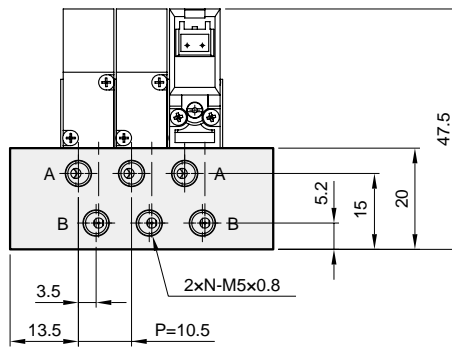
PLC Control System

### MVSF-100-5M\*

5 port (for manifold type)



No. of stations (N)	P	L
2	33.5	41.5
3	44	52
4	54.5	62.5
5	65	73
6	75.5	83.5
7	86	94
8	96.5	104.5
9	107	115
10	117.5	125.5



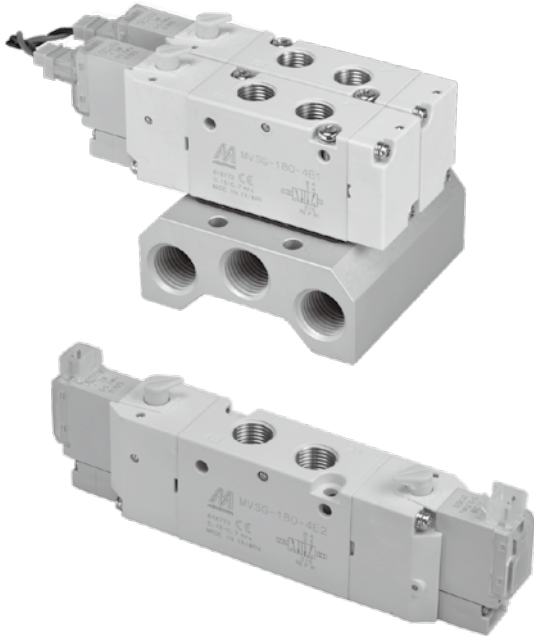
( ) : Dimension for LJ plug type.

# MVSG-180 series

## SOLENOID VALVE



mindman

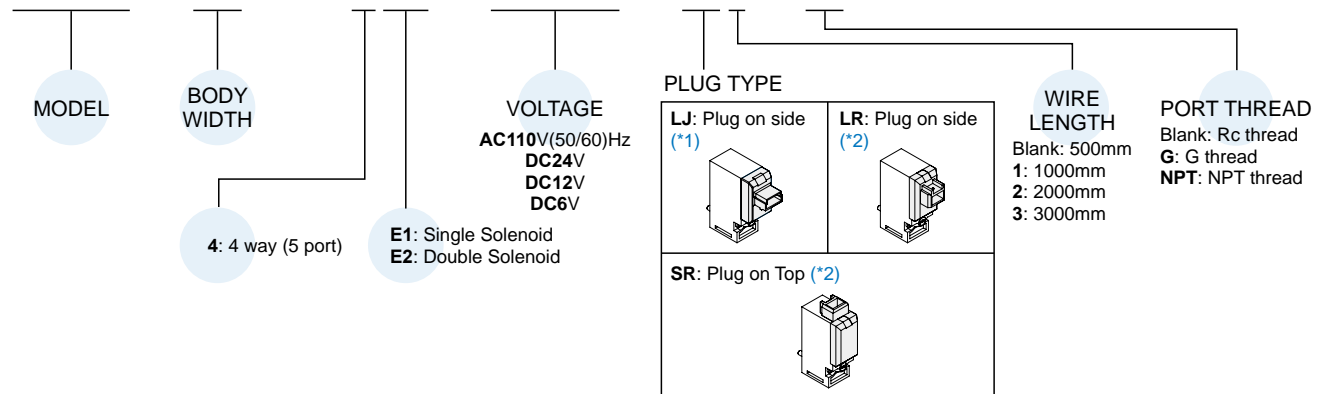


### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	6A		
Port size	Rc1/8		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.15~0.7 MPa	0.3~0.7 MPa	
Proof pressure	1 MPa		
Effective orifice	10 mm <sup>2</sup>		
Reponse time	15 ms	30 ms	
Ambient temperature	+5~+50°C		
Voltage	AC110V (50/60)Hz, DC24/12/6V		
Power consumption	AC=1.6VA, DC=0.55W		
Available voltage range	±10%		
Insulation calass	B class		
Weight	74 g	94 g	132 g

### Order example of valve

**MVSG – 180 – 4E2C – AC110 – LJ1 – G**

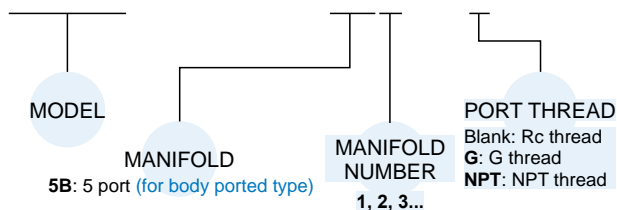


\*1. Connector with flying leads JPC type.

\*2. Connector with flying leads RMH type. (Original)

### Order example of manifold

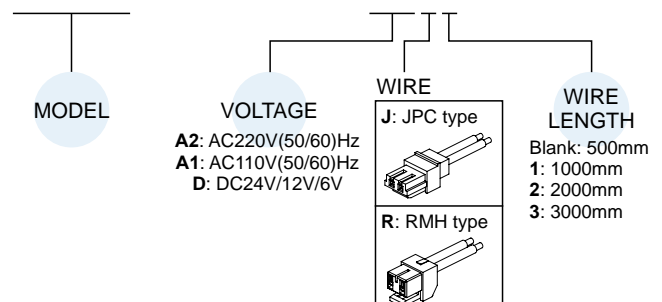
**MVSG – 180 – 5B3 – G**



### Order example of wire

\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**

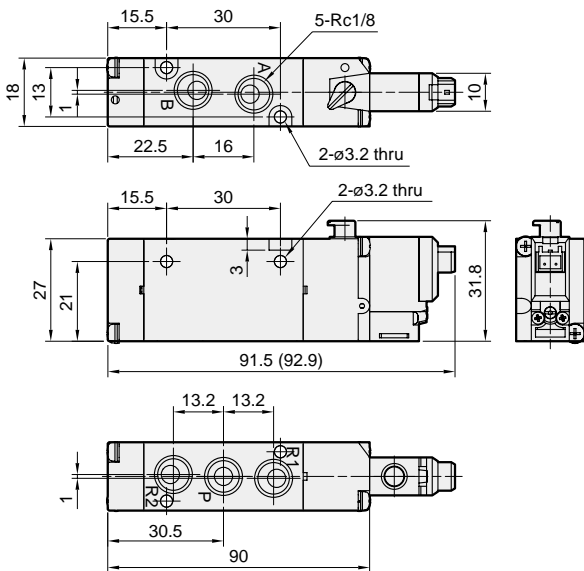
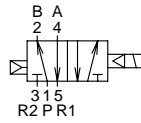


# MVSG-180 Dimensions

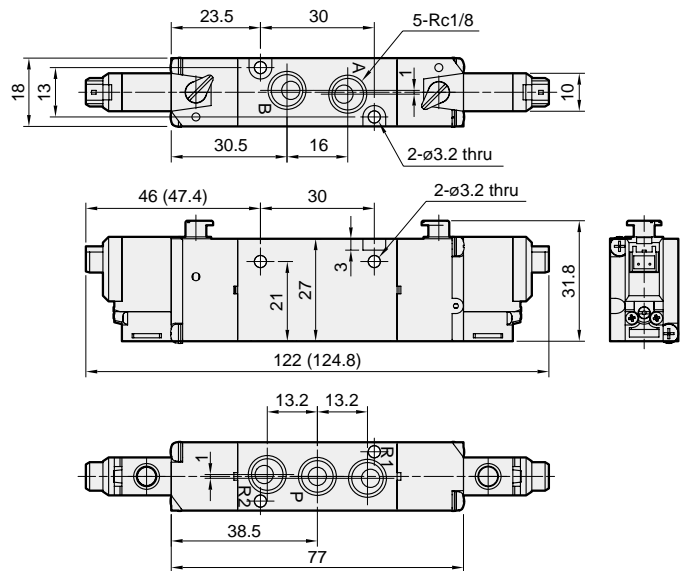
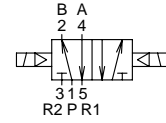
## SOLENOID VALVE



### MVSG-180-4E1



### MVSG-180-4E2

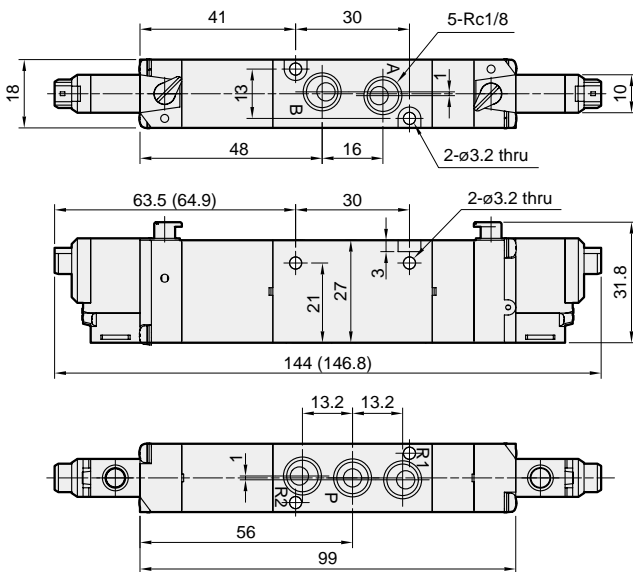
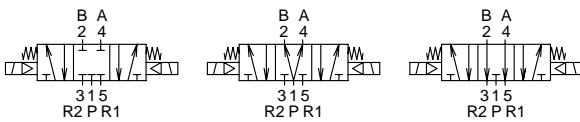


### MVSG-180-4E2C.PR

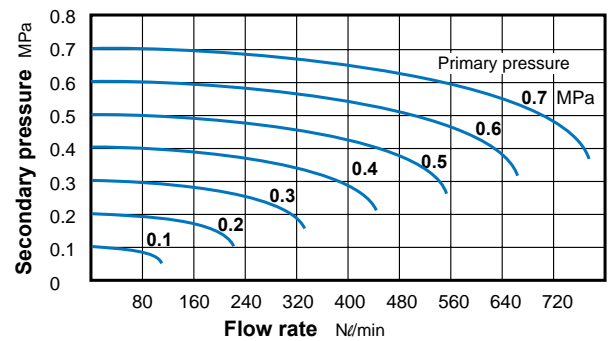
#### MVSG-180-4E2C

#### MVSG-180-4E2P

#### MVSG-180-4E2R



### Flow features



( ): Dimension for LJ plug type.

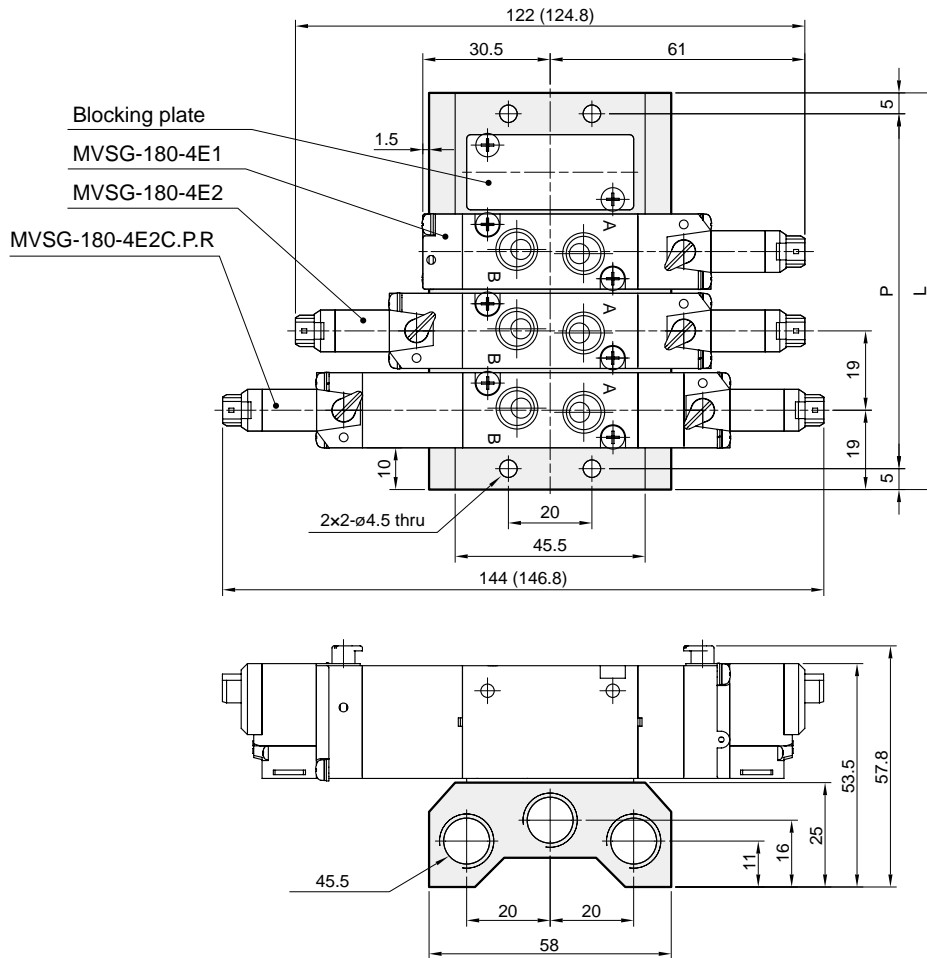
# MVSG-180 Manifold

## SOLENOID VALVE



### MVSG-180-5B\*

5 port (for body ported type)

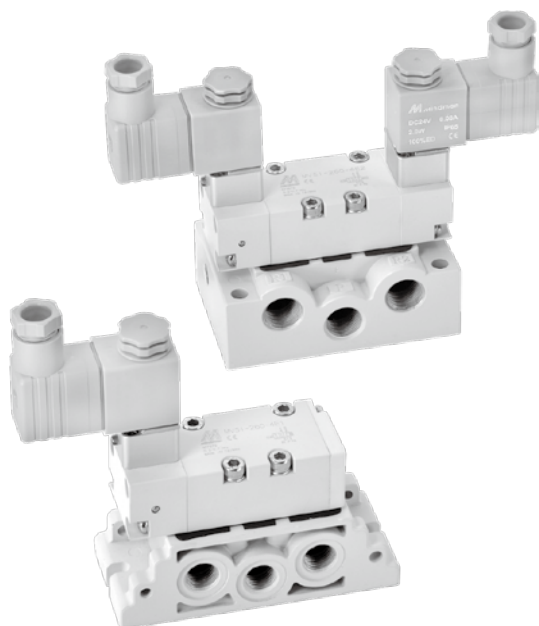


No. of stations	P	L
2	47	57
3	66	76
4	85	95
5	104	114
6	123	133
7	142	152
8	161	171
9	180	190
10	199	209

( ): Dimension for LJ plug type.

# MVSI-260 series

## ISO-1 SOLENOID VALVE



### Specification

Model	4E1	4E2	4E2 C.P.R
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating pressure range	0.2~0.7 MPa		0.3~0.7 MPa
Proof pressure	1 MPa		
Effective orifice	22 mm <sup>2</sup>		20 mm <sup>2</sup>
Response time	40 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24V		
Power consumption	AC=6/4.9VA, DC=2W		
Available voltage range	±10%		
Insulation class	F class		
Weight	312 g	422 g	572 g

### Order example of valve

**MVSI – 260 – 4E2C – AC110 – L**

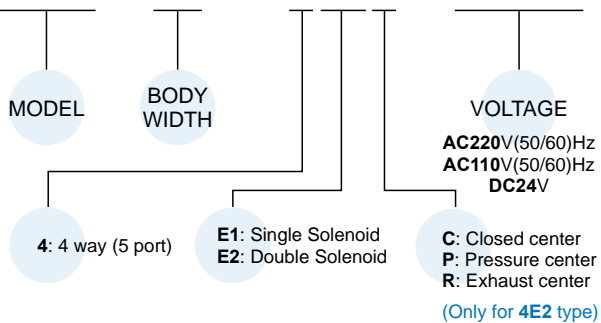


Table 1

### Property for explosion-proof type

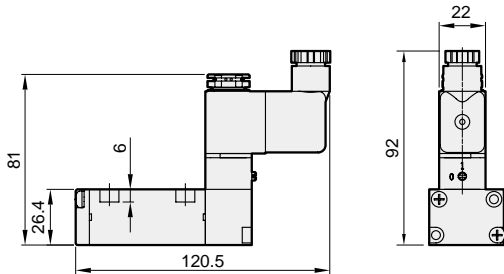
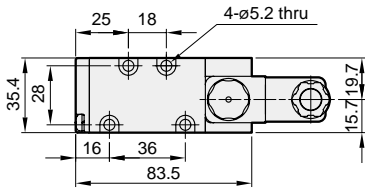
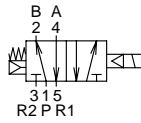
Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

# MVSI-260 Dimensions

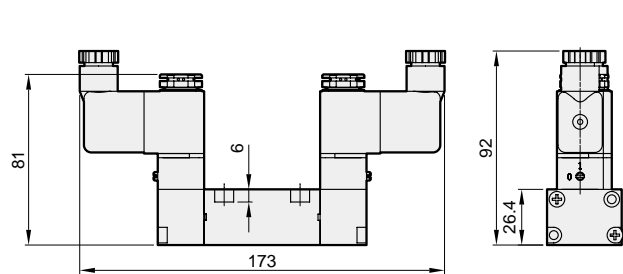
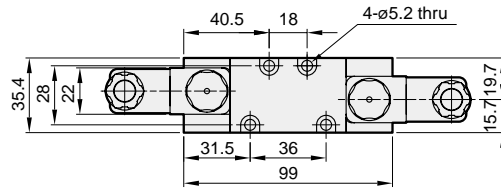
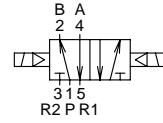
## ISO-1 SOLENOID VALVE



### MVSI-260-4E1

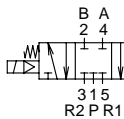


### MVSI-260-4E2

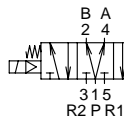


### MVSI-260-4E2C.P.R

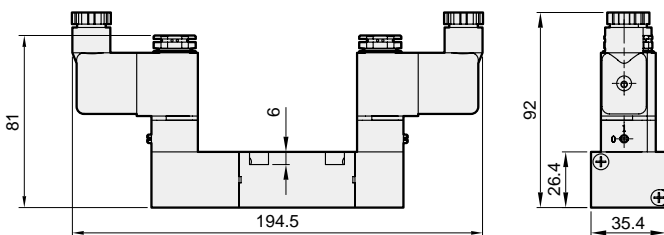
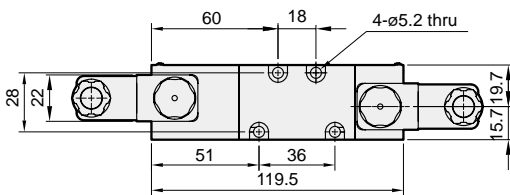
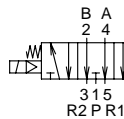
#### MVSI-260-4E2C



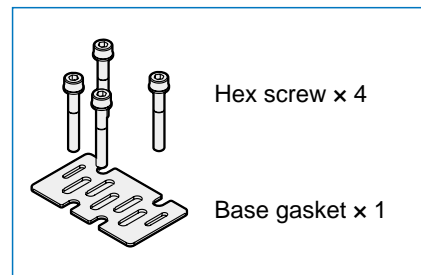
#### MVSI-260-4E2P



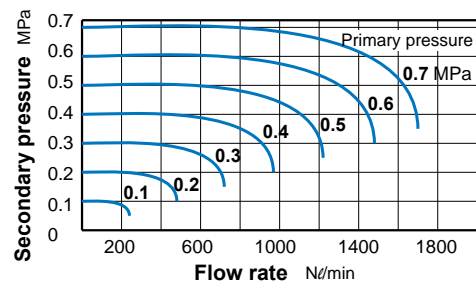
#### MVSI-260-4E2R



### Accessories



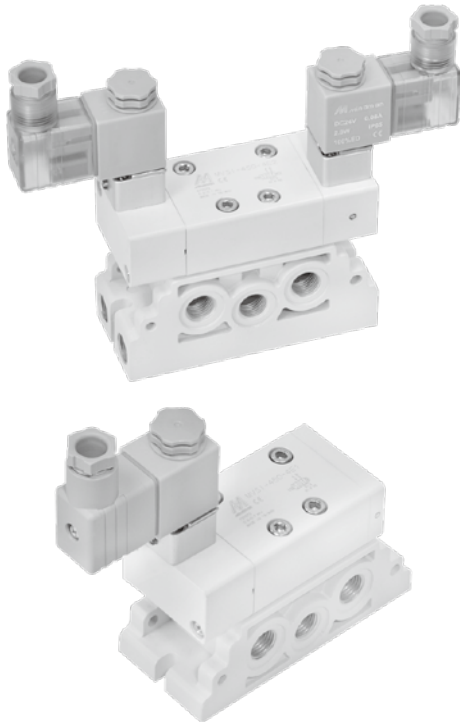
### Flow features





# MVSI-450 series

## ISO-1 SOLENOID VALVE



### Specification

Model	4E1	4E2
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.2~0.7 MPa	
Proof pressure	1 MPa	
Effective orifice	27 mm <sup>2</sup>	
Response time	40 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24V	
Power consumption	AC=6/4.9VA, DC=2W	
Available voltage range	±10%	
Insulation class	F class	
Weight	380 g	540 g

### Order example of valve

**MVSI – 450 – 4E2 – AC110 – L**

MODEL

BODY WIDTH

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Blank: DIN connector  
L: DIN connector with LED indicator  
E: Explosion protection (Table 1)  
(E type use black coil)

4: 4 way (5 port)

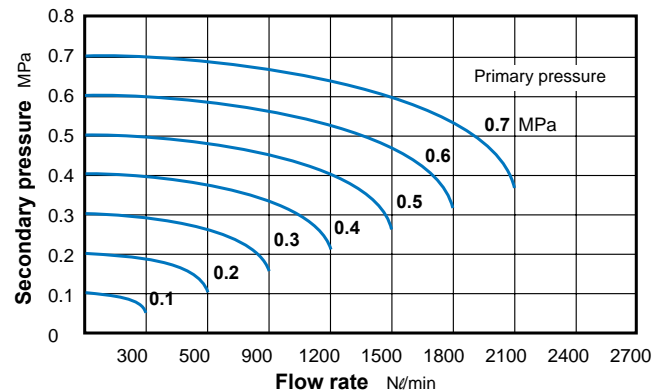
E1: Single Solenoid  
E2: Double Solenoid

Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

### Flow features



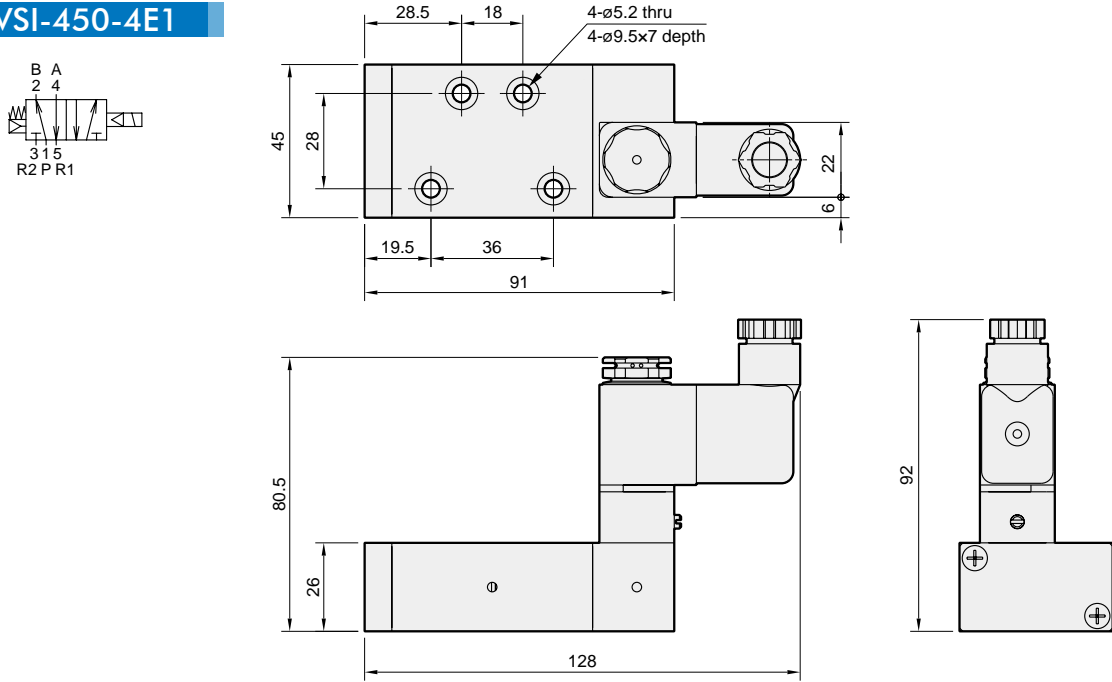
# MVSI-450 Dimensions

## ISO-1 SOLENOID VALVE

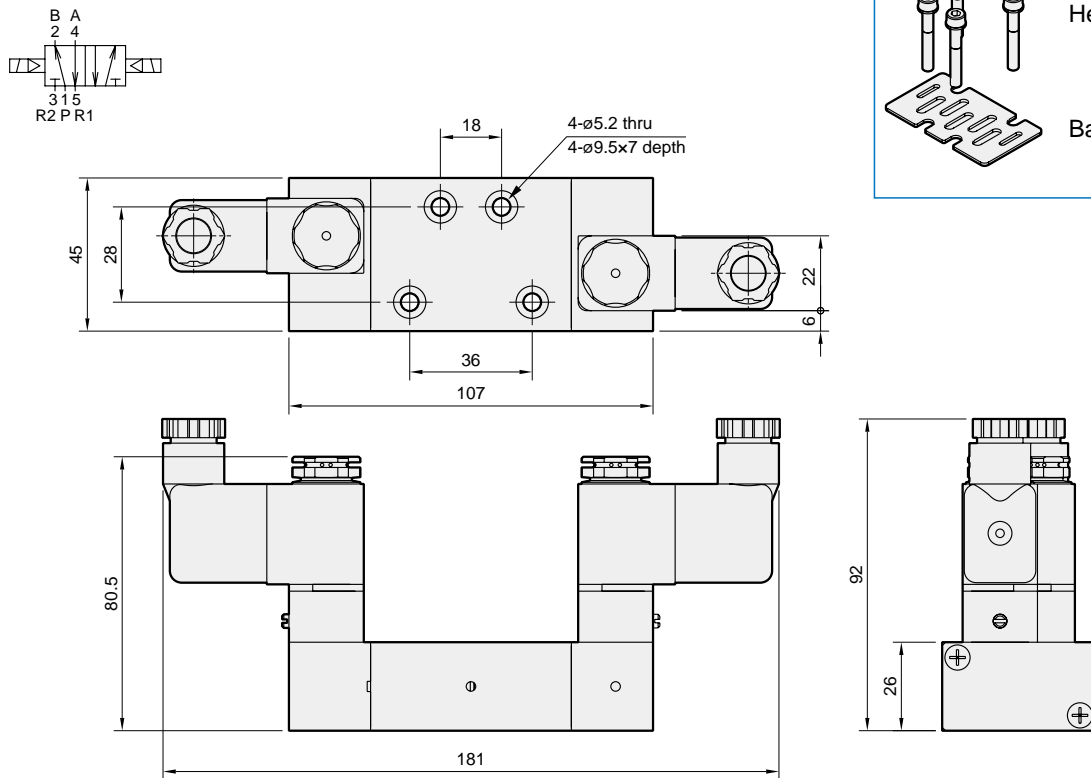


Mindman

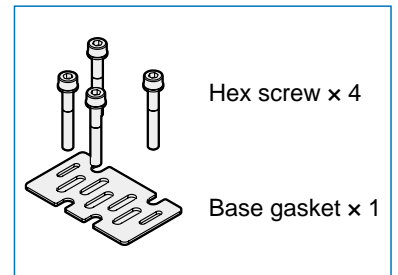
### MVSI-450-4E1



### MVSI-450-4E2

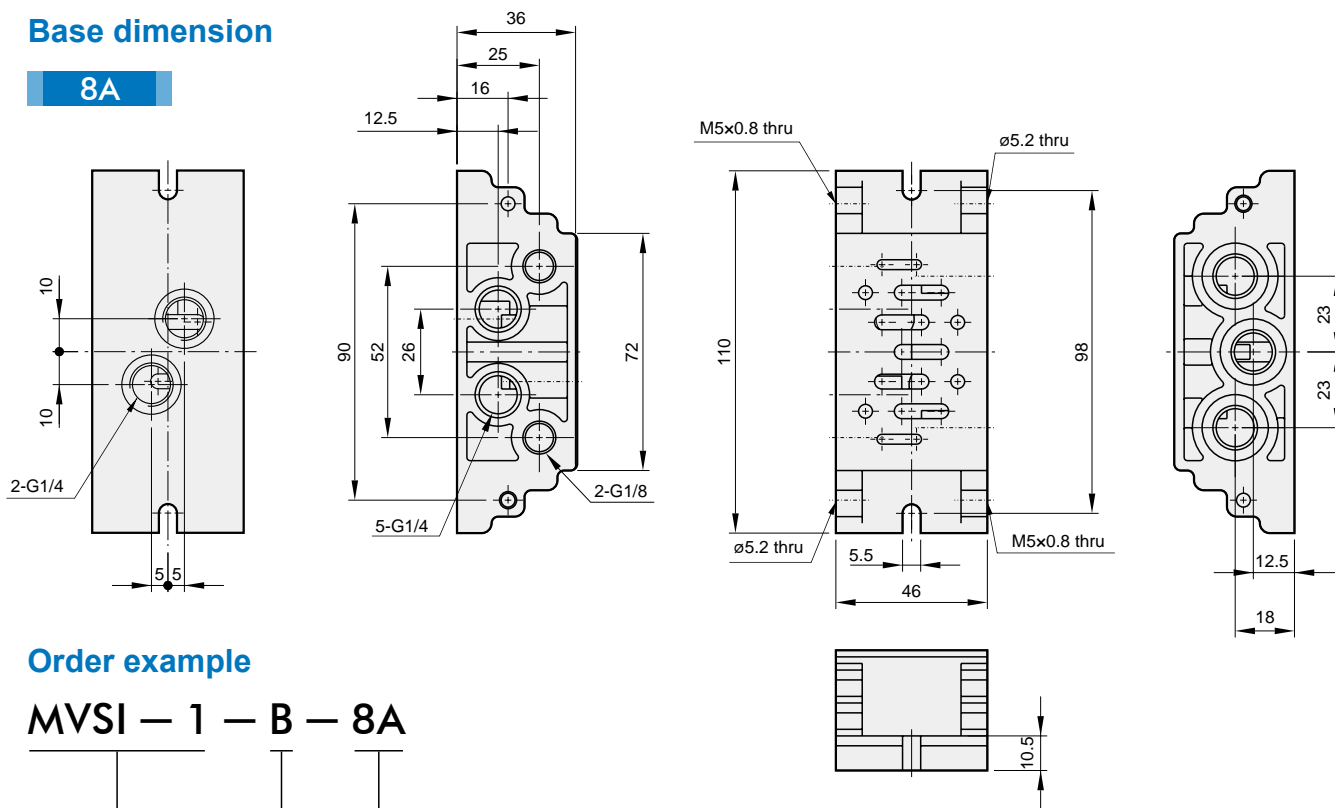


### Accessories



### Base dimension

8A



### Order example

MVSI - 1 - B - 8A

MODEL

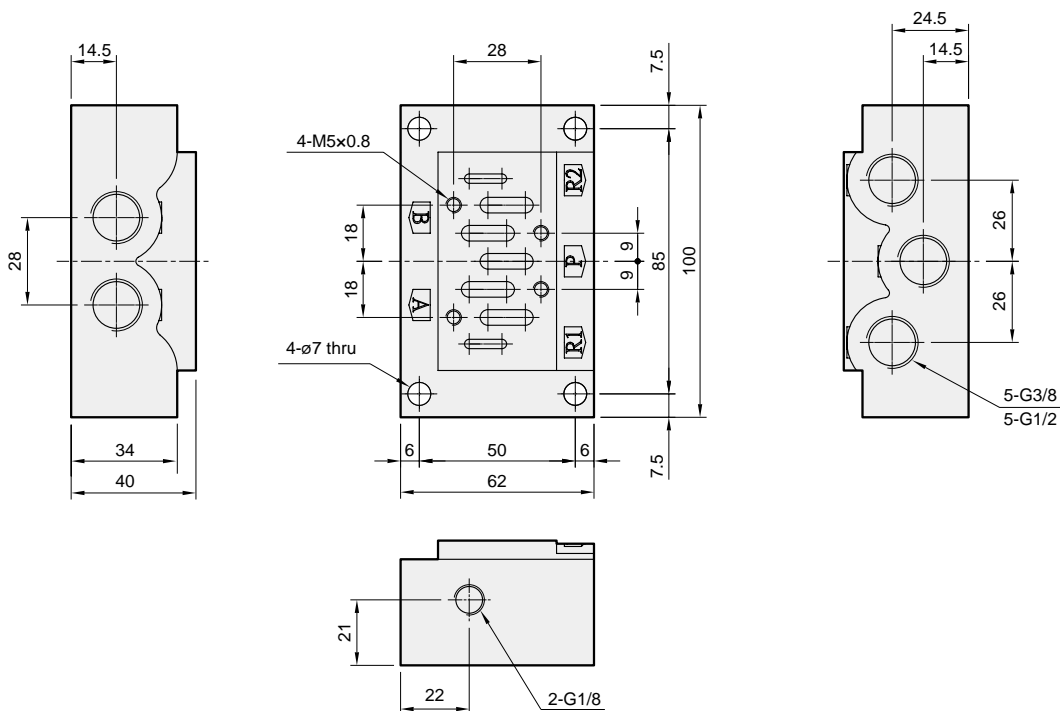
BASE

BORE SIZE

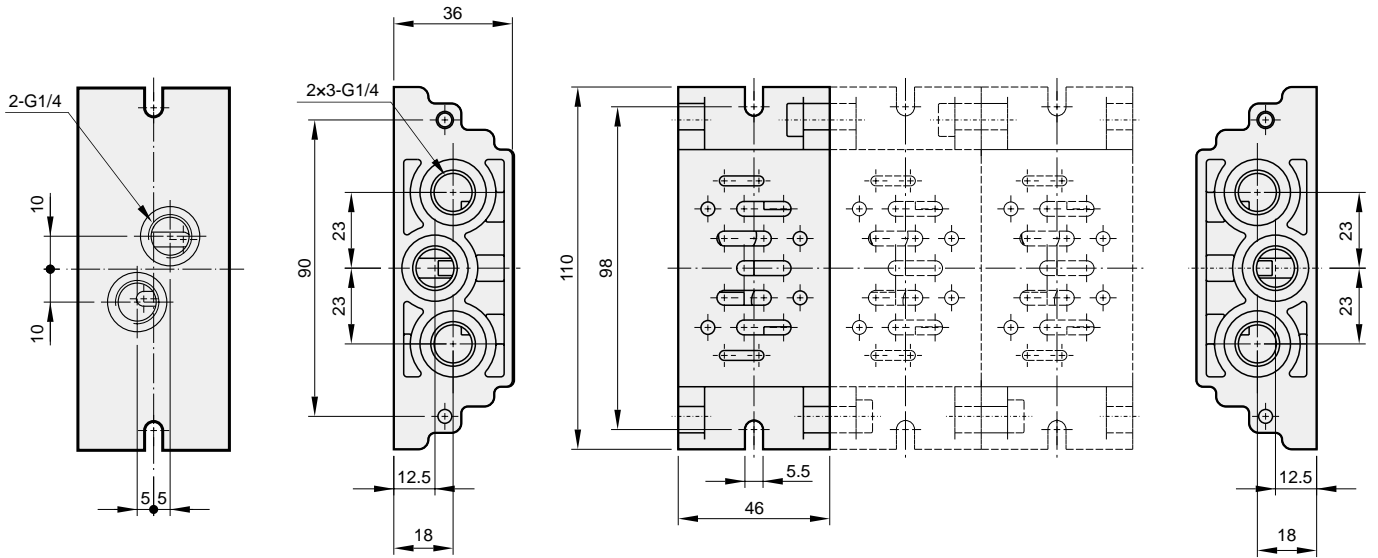
8A: G1/4  
10A: G3/8  
15A: G1/2

10A

15A



**Manifold of solenoid valve**



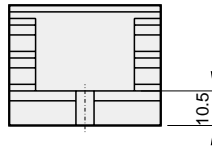
**Order example**

**MVSI - 1 - M2**

MODEL

MANIFOLD

NO. OF STATIONS  
1, 2, 3...

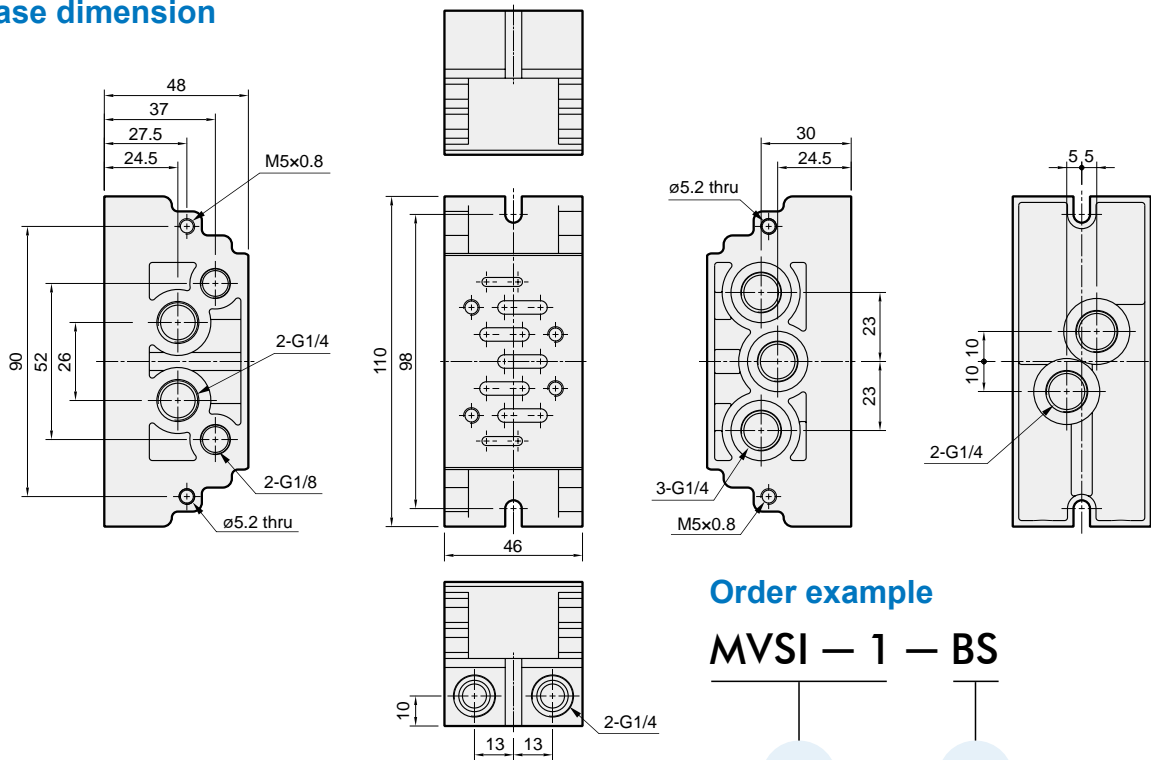


# MVSI Base & Manifold (side ported type)

## ISO-1 SOLENOID VALVE



### Base dimension



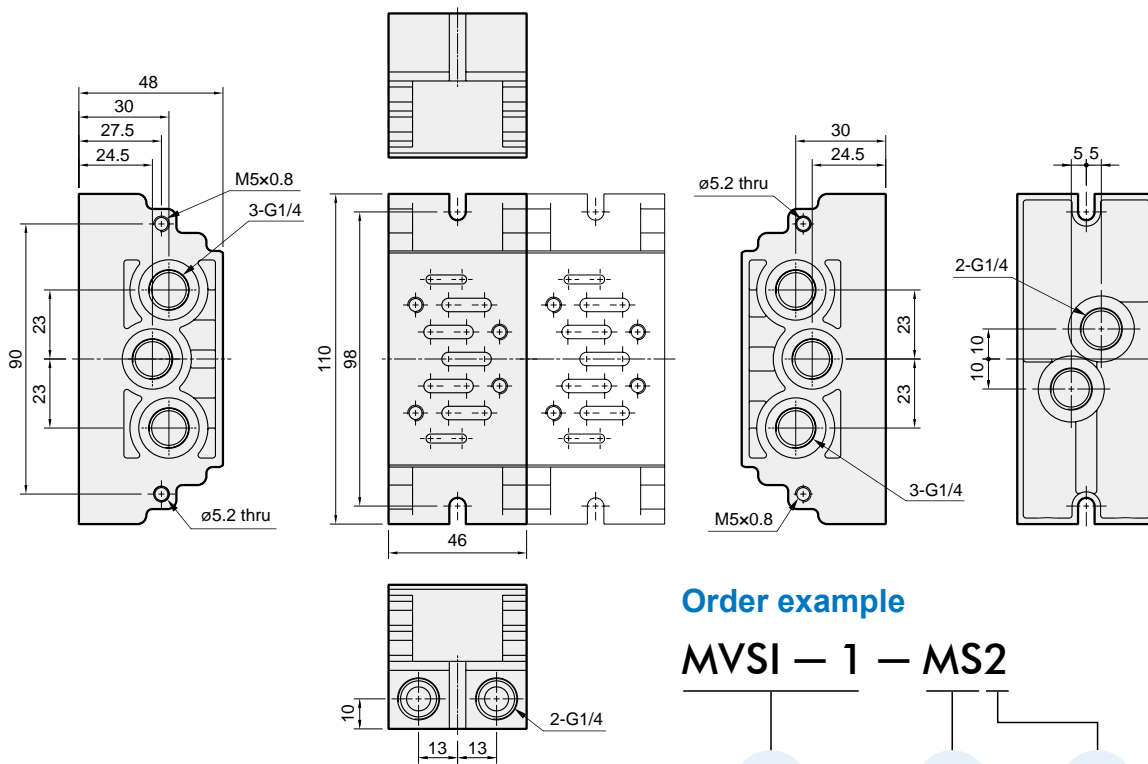
### Order example

MVSI — 1 — BS

MODEL

BASE

### Manifold of solenoid valve



### Order example

MVSI — 1 — MS2

MODEL

MANIFOLD

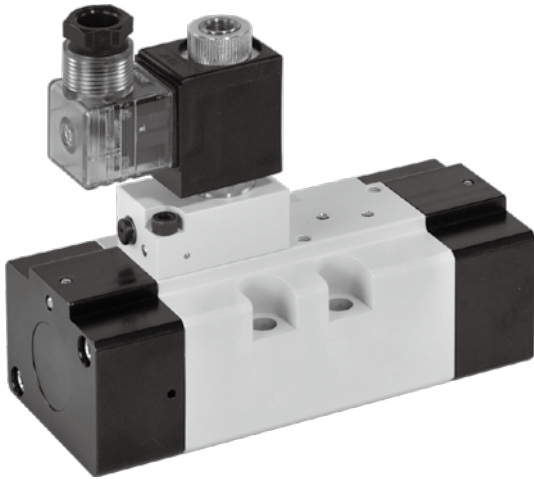
NO. OF STATIONS  
1, 2, 3...

# MVSI-510 series

## ISO-3 SOLENOID VALVE



Mindman

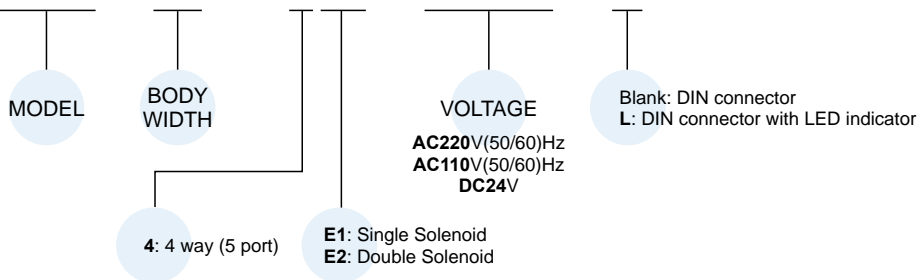


### Specification

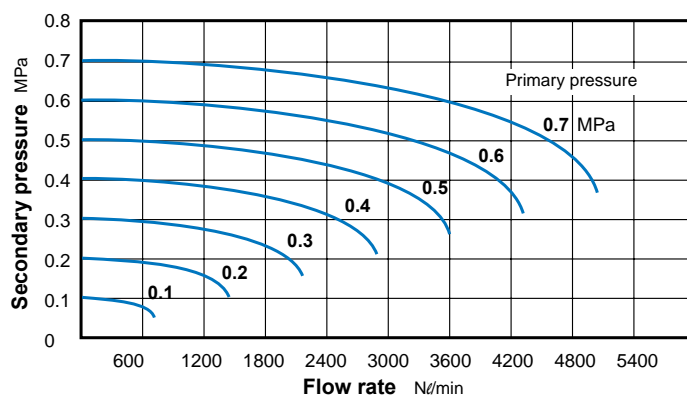
Model	4E1	4E2
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.2~0.7 MPa	
Proof pressure	1 MPa	
Effective orifice	65 mm <sup>2</sup>	
Response time	60 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24V	
Power consumption	AC=13/11VA, DC=10W	
Available voltage range	±10%	
Insulation class	H class	
Weight	1493 g	1778 g

### Order example of valve

MVSI – 510 – 4E2 – AC110 – L



### Flow features

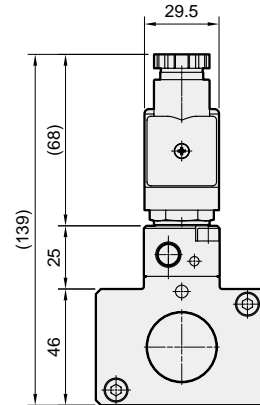
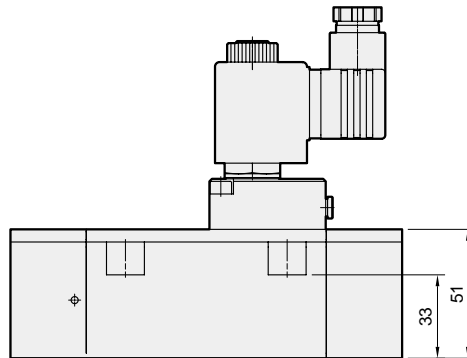
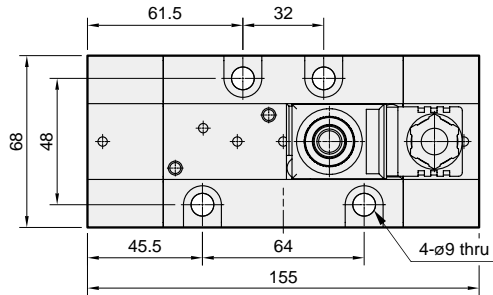
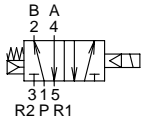


# MVSI-510 Dimensions

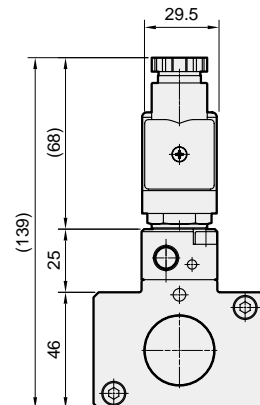
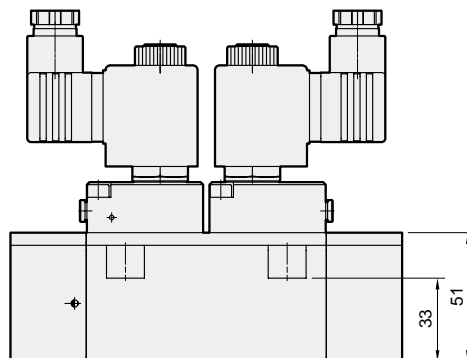
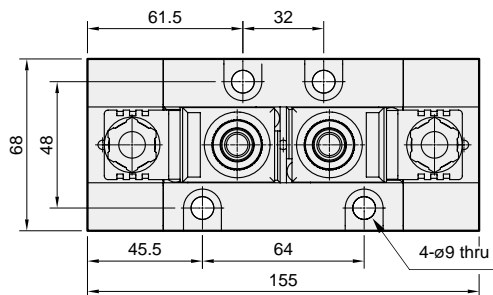
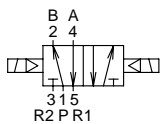
## ISO-3 SOLENOID VALVE



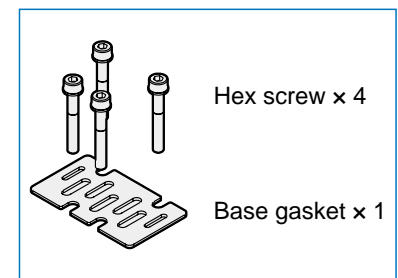
### MVSI-510-4E1



### MVSI-510-4E2

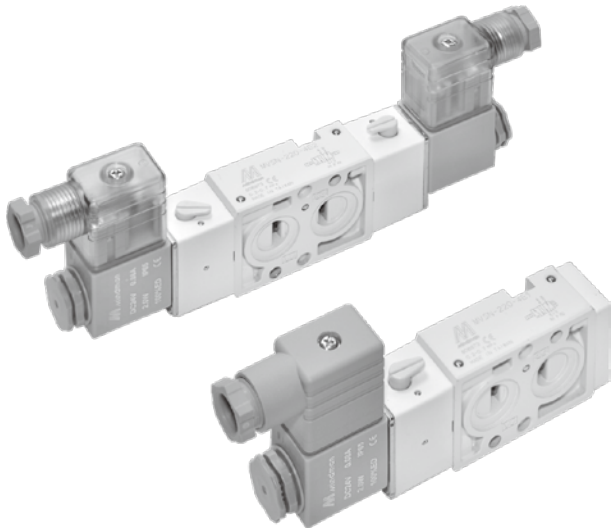


### Accessories



# MVSN-220 series

## NAMUR SOLENOID VALVE



### Specification

Model	4E1	4E2
Bore No.	6A, 8A	
Port size	G1/8, G1/4	
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.2~0.8 MPa	
Proof pressure	1 MPa	
Effective orifice	18 mm <sup>2</sup>	
Response time	38 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, AC/DC24V	
Power consumption	AC=6/4.9VA, DC=2W	
Available voltage range	±10%	
Insulation class	F class	
Weight (Explosion-proof)	233 g (441 g)	343 g (761 g)

### Order example of valve

MVSN – 220 – 4E2 – 8A – AC110 – L

MODEL

BODY WIDTH

BORE SIZE

VOLTAGE

Blank: DIN connector  
L: DIN connector with LED indicator  
E: Explosion protection (Table 1)  
(E type use black coil)

4: 4 way (5 port)

E1: Single Solenoid  
E2: Double Solenoid

6A: G1/8  
8A: G1/4

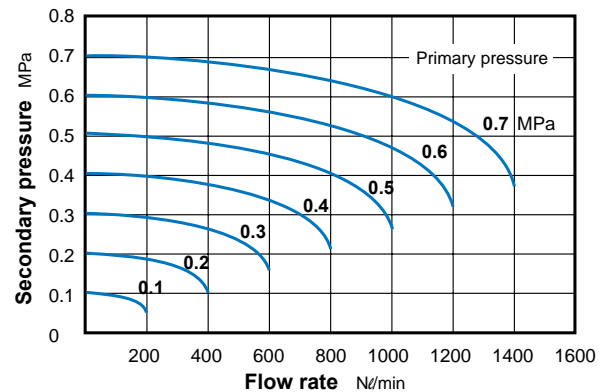
AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V

Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

### Flow features



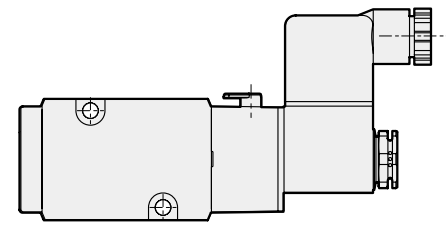
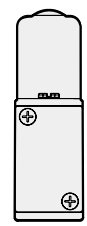
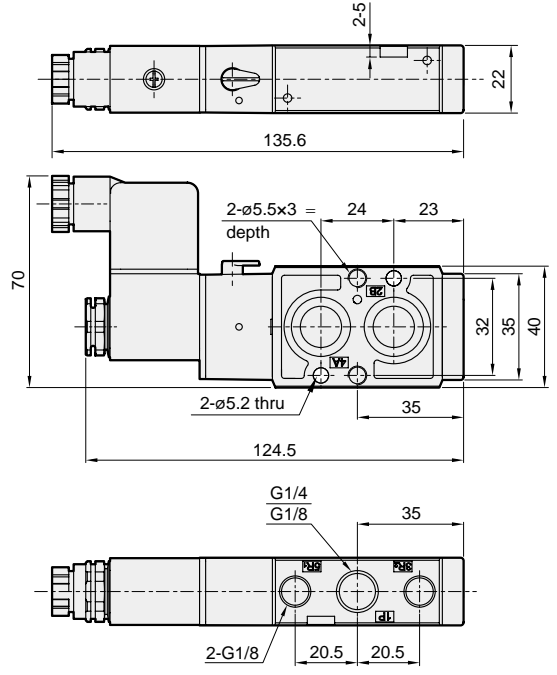
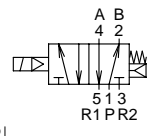


# MVSN-220 Dimensions

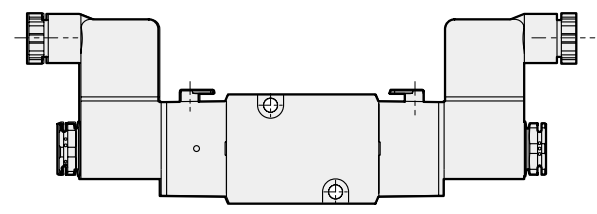
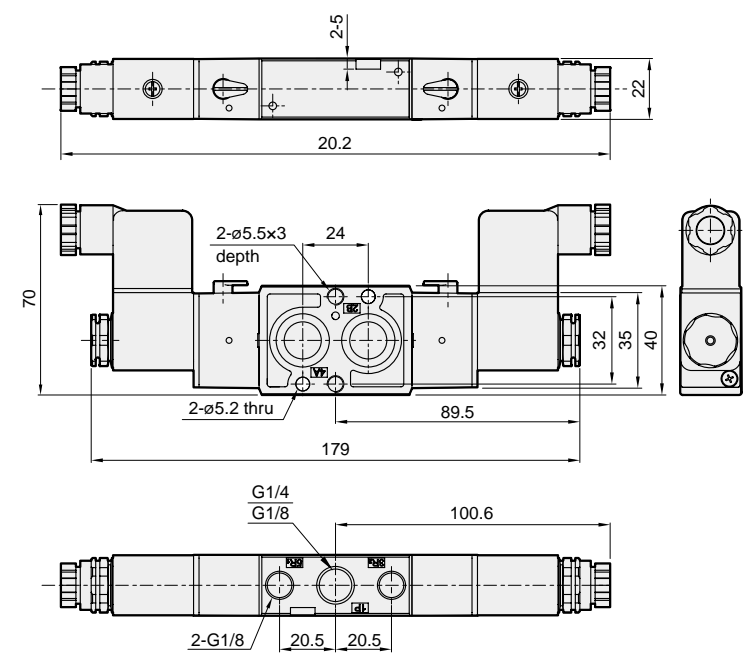
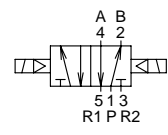
## NAMUR SOLENOID VALVE



### MVSN-220-4E1



### MVSN-220-4E2

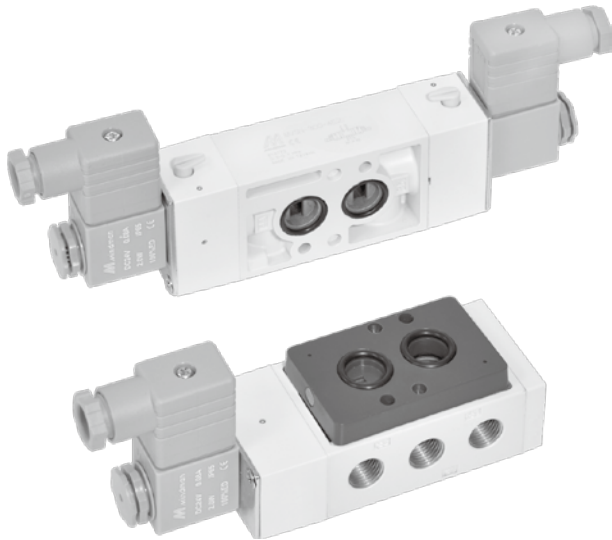


# MVSN-300 series

## NAMUR SOLENOID VALVE



Mindman



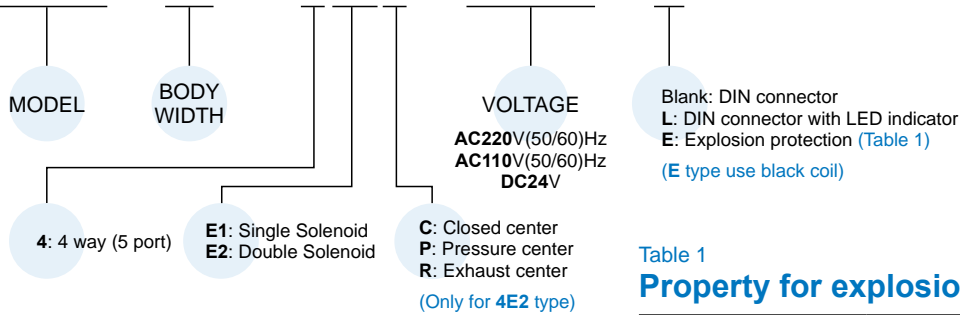
(with adapter)

### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	8A		
Port size	Rc1/4		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.2~0.8 MPa	0.3~0.8 MPa	
Proof pressure	1 MPa		
Effective orifice	35 mm <sup>2</sup>	30 mm <sup>2</sup>	
Reponse time	50 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24V		
Power consumption	AC=6/4.9VA, DC=2W		
Available voltage range	±10%		
Insulation calss	F class		
Weight	422 g	507 g	764 g

### Order example of valve

MVSN – 300 – 4E2C – AC110 – L



### Order example of adapter

MVSN – 300 – A

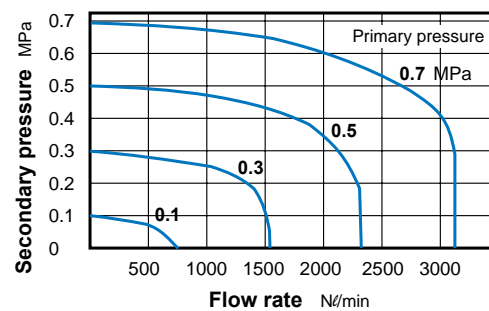


Table 1

### Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V, (50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available valtage range	±10%
Insulation class	F class

### Flow features

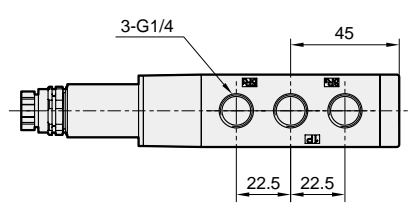
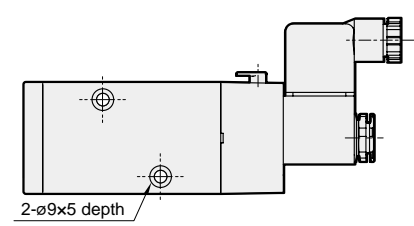
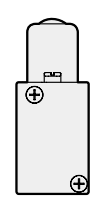
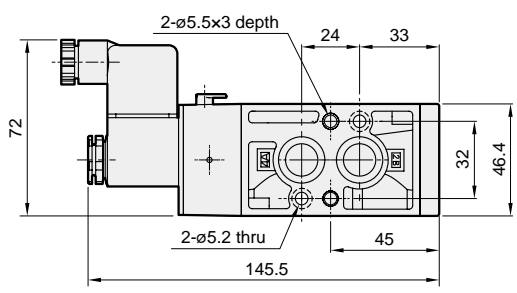
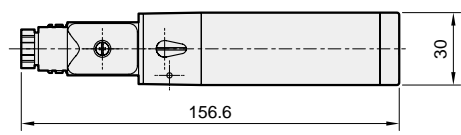
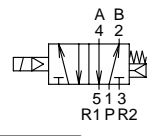


# MVSN-300 Dimensions

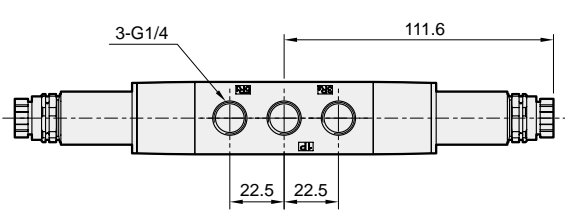
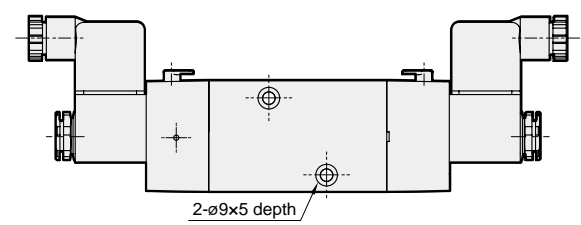
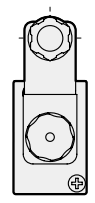
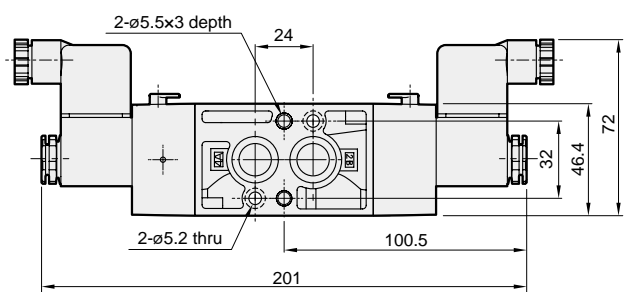
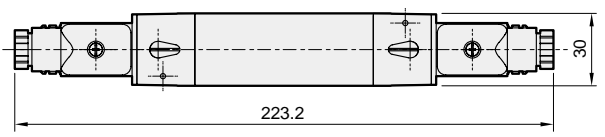
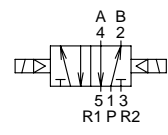
## NAMUR SOLENOID VALVE



### MVSN-300-4E1



### MVSN-300-4E2



# MVSN-300 Adapter

## NAMUR SOLENOID VALVE

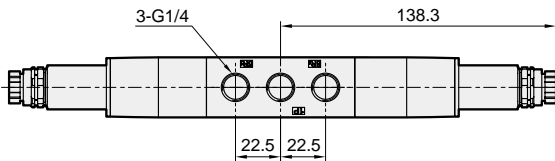
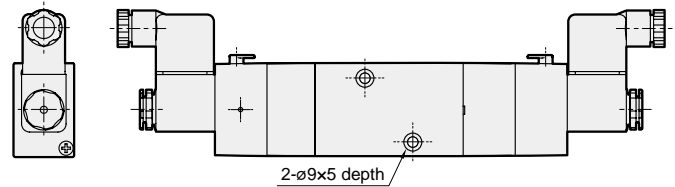
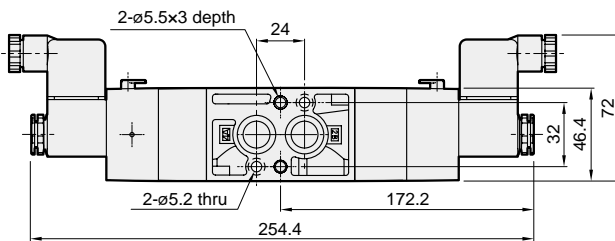
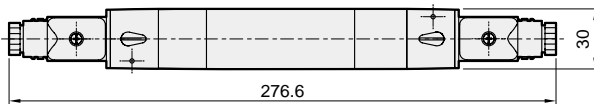
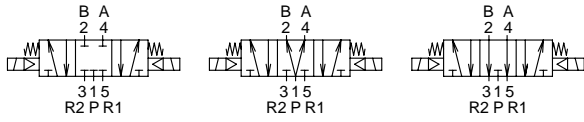


### MVSN-300-4E2C.PR

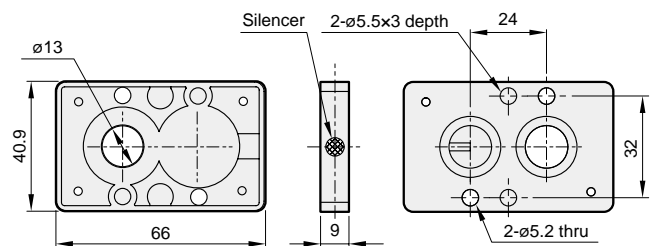
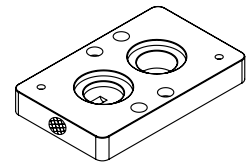
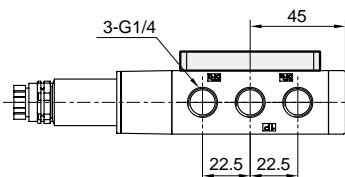
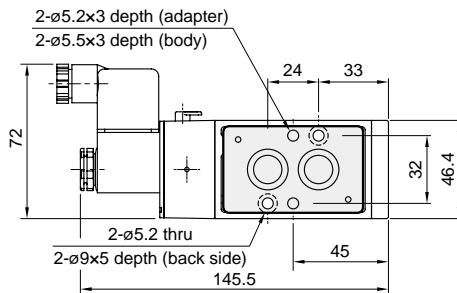
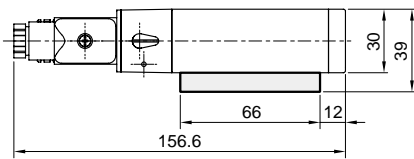
MVSN-300-4E2C

MVSN-300-4E2P

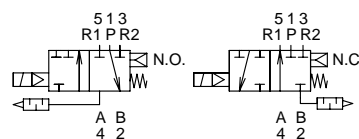
MVSN-300-4E2R



### MVSN-300-A



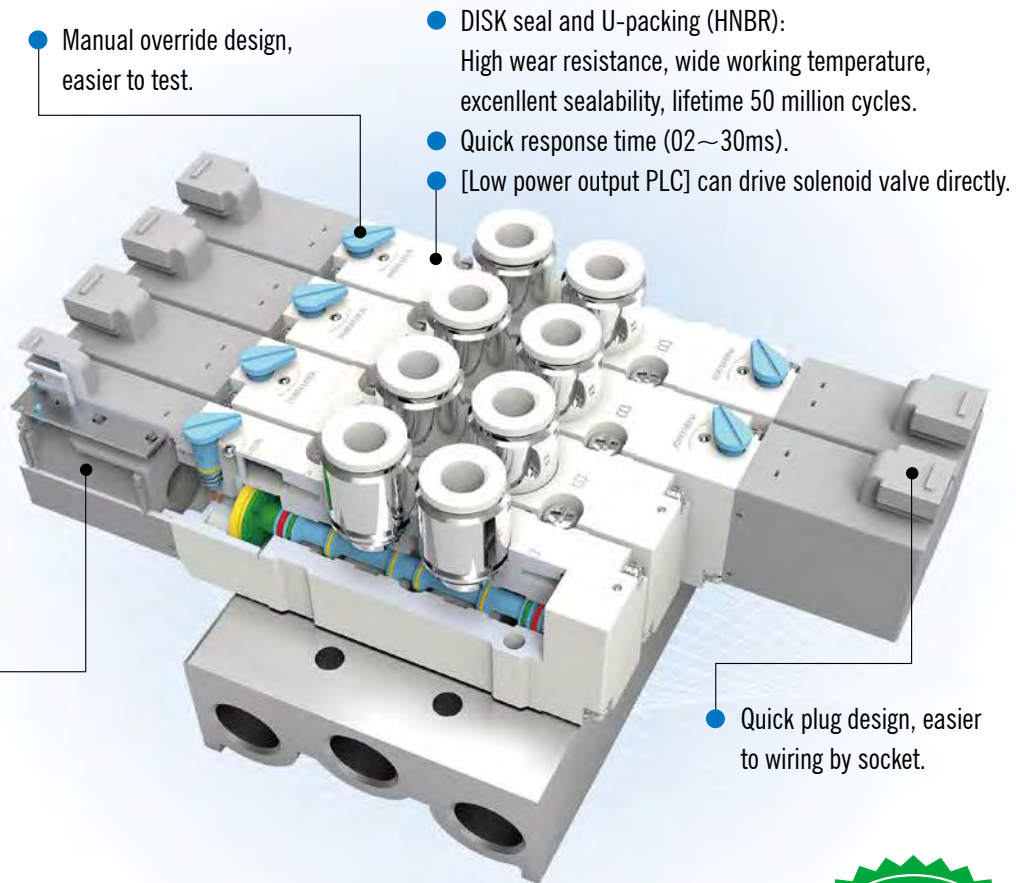
- Solenoid valve without plate: 5/2 single acting
- Solenoid valve with plate: 3/2 single acting
- Silencer on the OPPOSITE side of the solenoid: N.C.
- Silencer on the SAME side of the solenoid: N.O.



### [ Low Power Consumption ]



### MVSP-150/156/180/188/220 series



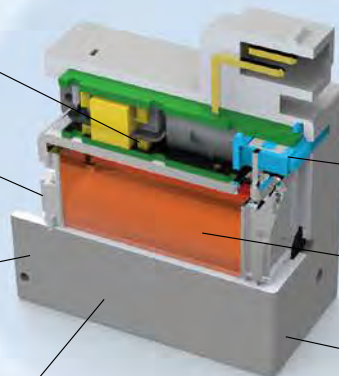
● Manual override design, easier to test.

- DISK seal and U-packing (HNBR): High wear resistance, wide working temperature, excellent sealability, lifetime 50 million cycles.
- Quick response time (0.2~30ms).
- [Low power output PLC] can drive solenoid valve directly.

● Quick plug design, easier to wiring by socket.

### [ Coil Features ]

- Bridge rectifier design: Converting AC voltage to DC, it can eliminate operating noise.
- Low power consumption: DC power 0.95W, it can save over 70% power consumption compared with other brand (3W).
- Low current consumption: It can extend lifetime of driver (PLC, Relay...).
- Low ambient temperature as operating.

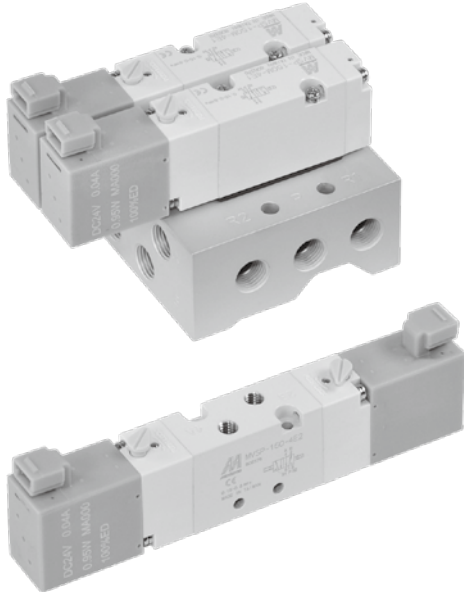


- Indicator (LED): Indicating coil operating condition.
- Cooper wire insulation class: H class/180°C.
- Coil insulation class: F class/155°C.



# MVSP-150 series

## SOLENOID VALVE

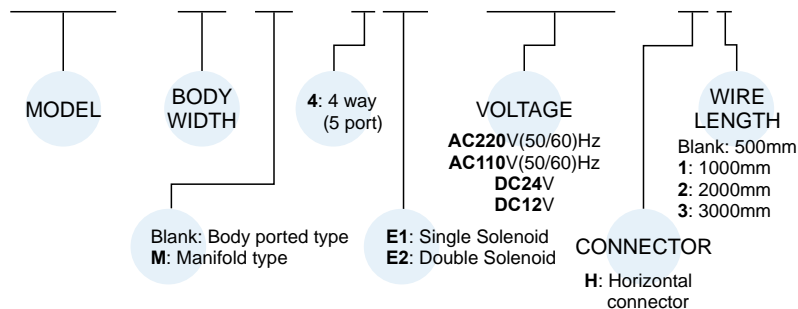


### Specification

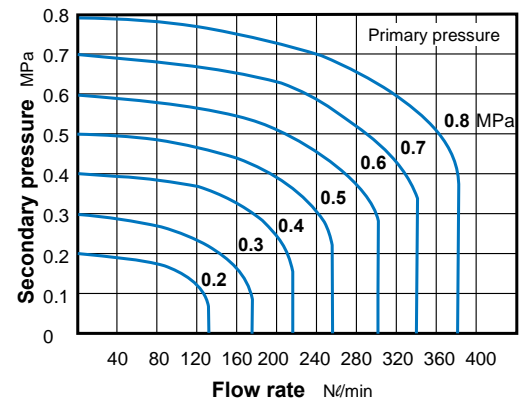
Model	4E1	4E2
Port size	M5x0.8	
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.15~0.8 MPa	
Proof pressure	1 MPa	
Effective orifice	3.8 mm <sup>2</sup>	
Response time	25 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24/12V	
Power consumption	AC=2.5VA, DC=0.95W	
Available voltage range	±10%	
Insulation class	F class	
Weight (Explosion-proof)	73 g	108 g

### Order example of valve

**MVSP – 150M – 4E2 – AC110 – H1**

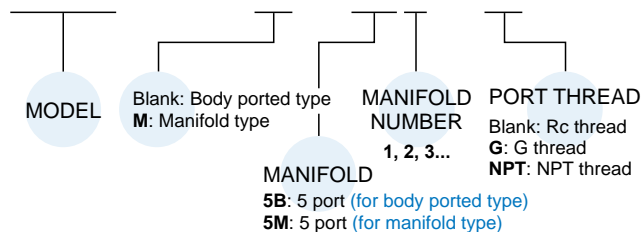


### Flow features



### Order example of manifold

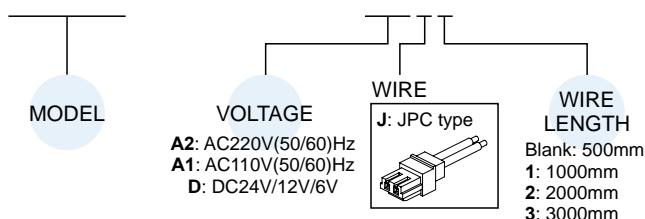
**MVSP – 150M – 5B3 – G**



### Order example of wire

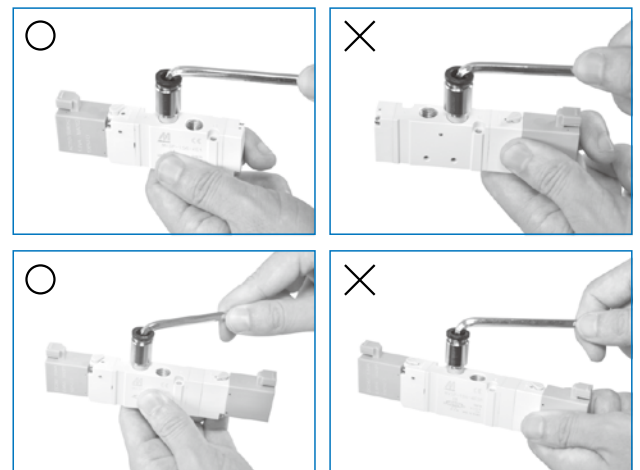
\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



### Caution

Prohibit apply force to coil when tighten the tube fitting.

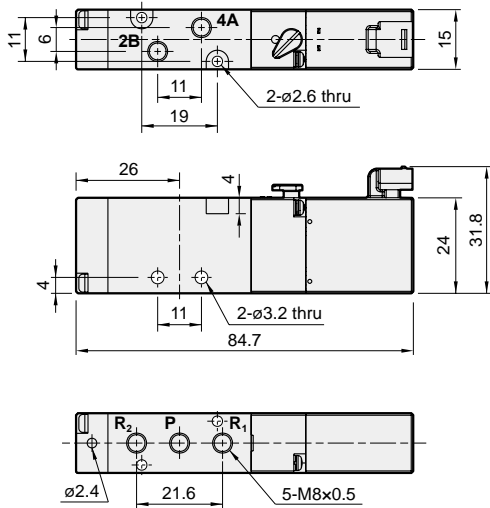
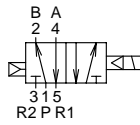


# MVSP-150 Dimensions

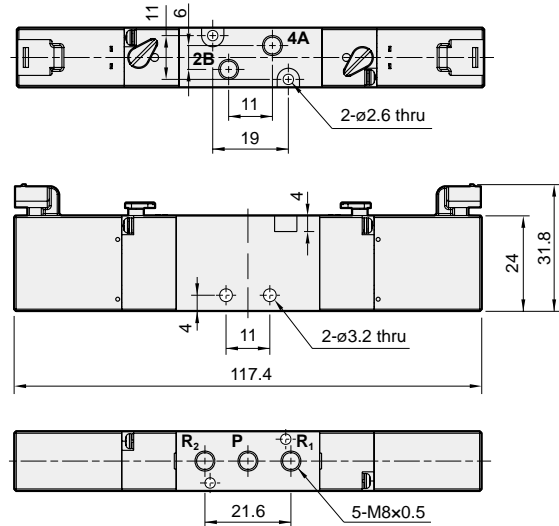
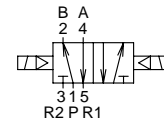
## SOLENOID VALVE



### MVSP-150-4E1

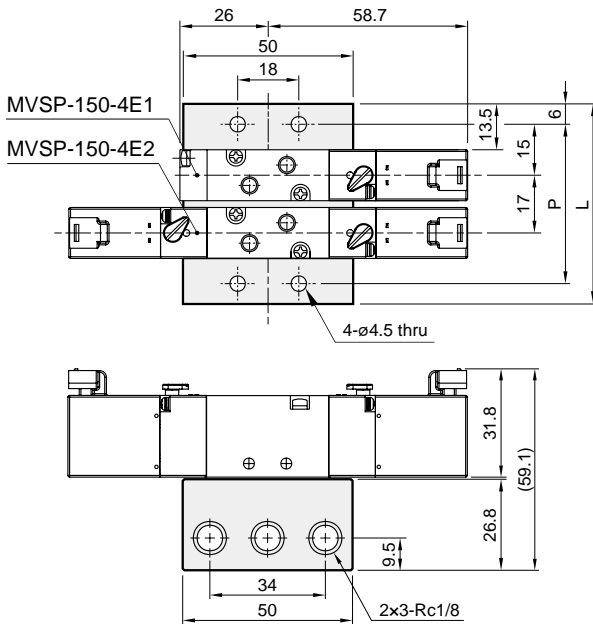


### MVSP-150-4E2



### MVSP-150-5B\*

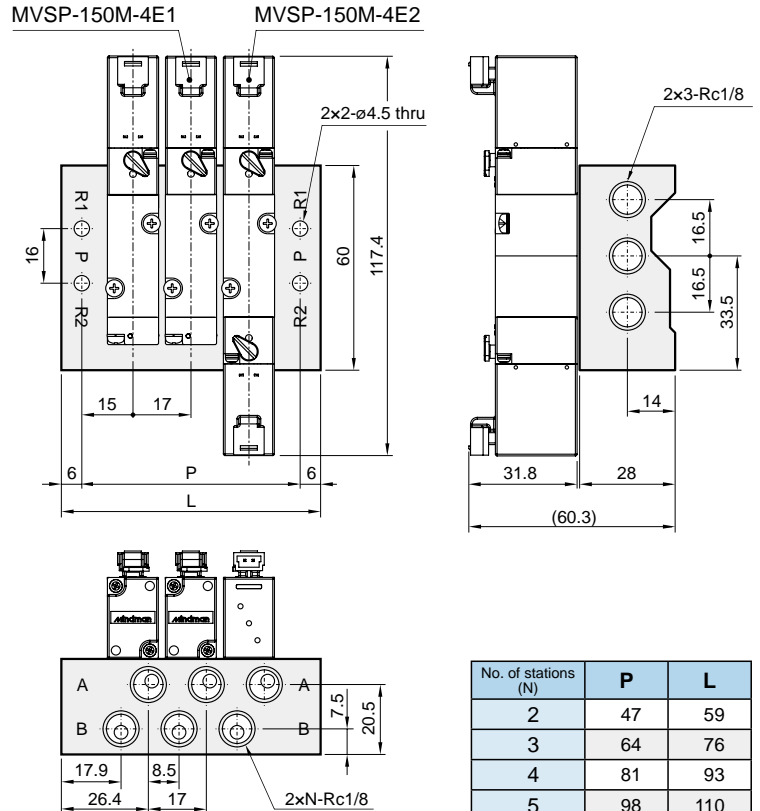
5 port (for body ported type)



No. of stations	P	L
2	47	59
3	64	76
4	81	93
5	98	110
6	115	127
7	132	144
8	149	161
9	166	178
10	183	195

### MVSP-150M-5M\*

5 port (for manifold type)



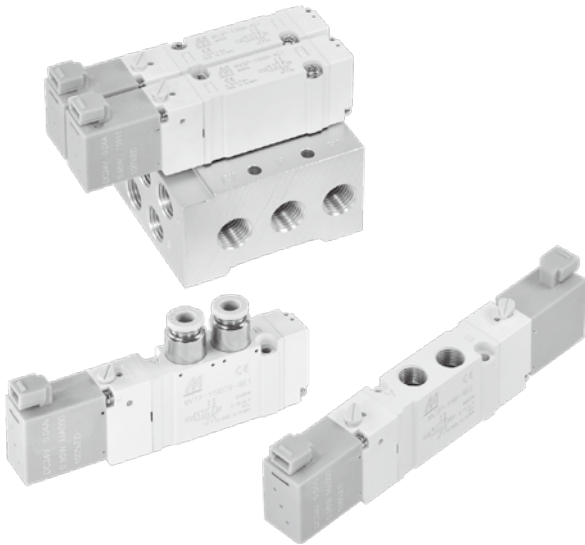
No. of stations (N)	P	L
2	47	59
3	64	76
4	81	93
5	98	110
6	115	127
7	132	144
8	149	161
9	166	178
10	183	195

# MVSP-156 series

## SOLENOID VALVE



mindman

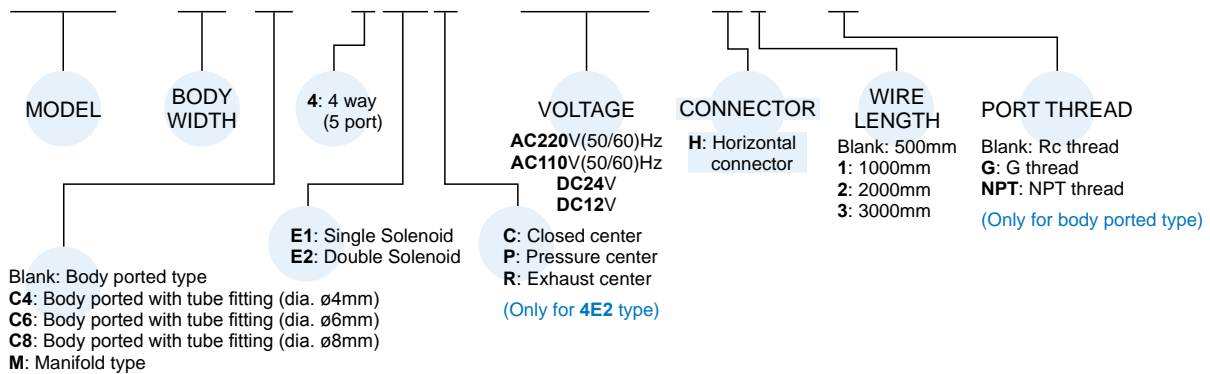


### Specification

Model	4E1	4E2	4E2 C.P.R
Port size	Rc1/8		
No. of port / position	5/2		5/3
Medium	Air		
Operating pressure range	0.15~0.7 MPa		0.2~0.7 MPa
Proof pressure	1 MPa		
Effective orifice	Body ported	11 mm <sup>2</sup>	9.5/14.6/9.5 mm <sup>2</sup>
	Manifold	10 mm <sup>2</sup>	7.5/13/8 mm <sup>2</sup>
Response time	30 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24/12V		
Power consumption	AC=2.5VA, DC=0.95W		
Available voltage range	±10%		
Insulation class	F class		
Weight	83 g	118 g	127 g

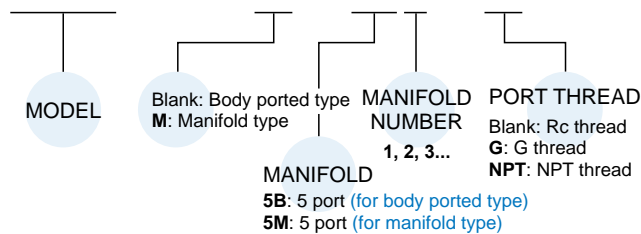
### Order example of valve

**MVSP – 156M – 4E2C – AC110 – H1 – G**



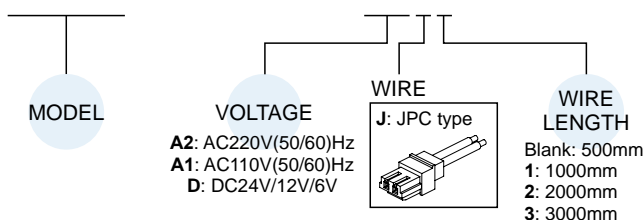
### Order example of manifold \* Use the same manifold with MVSU.

**MVSU – 156M – 5B3 – G**



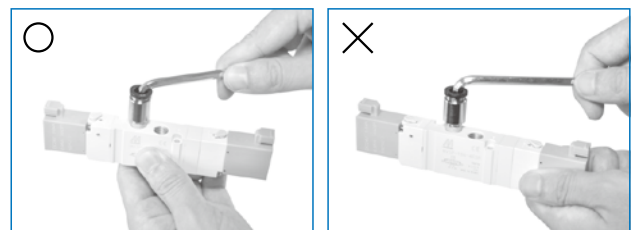
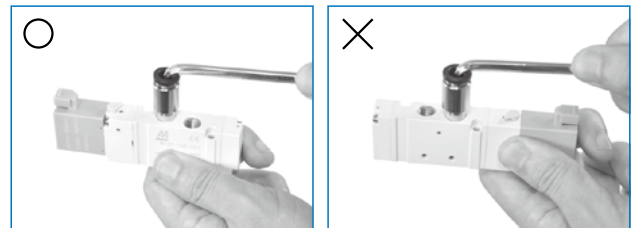
### Order example of wire \* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



### Caution

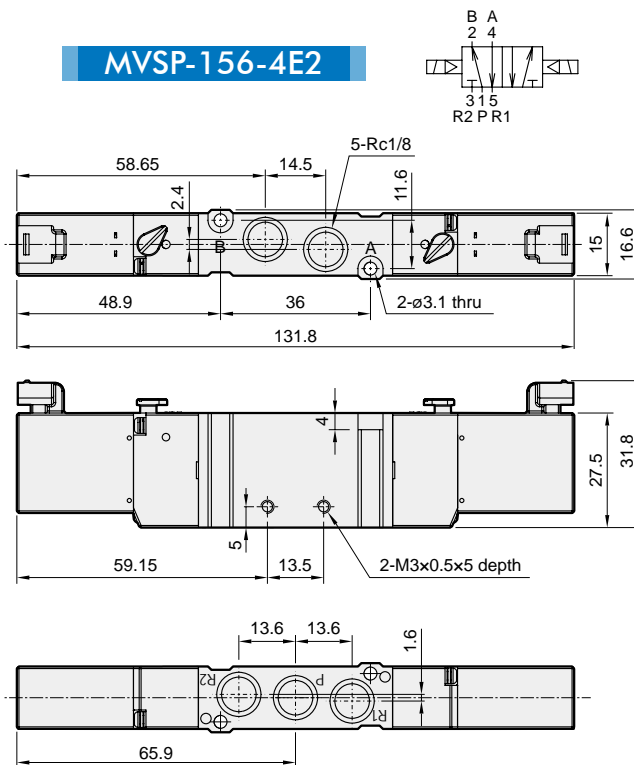
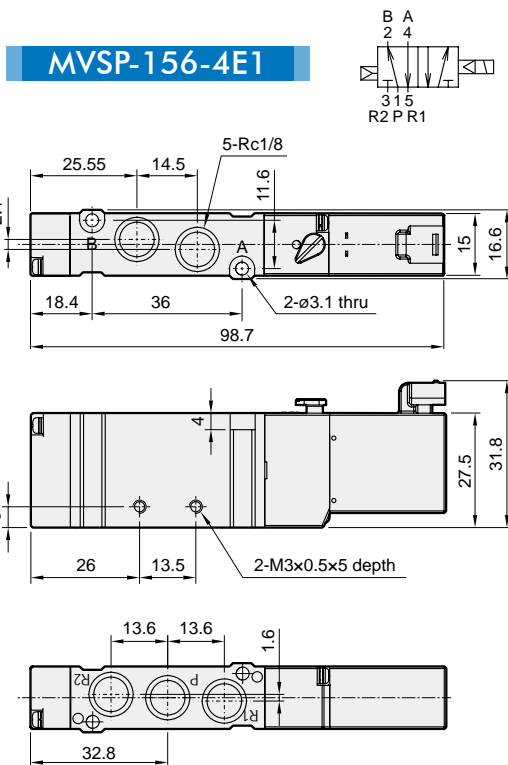
Prohibit apply force to coil when tighten the tube fitting.





# MVSP-156 Dimensions

## SOLENOID VALVE

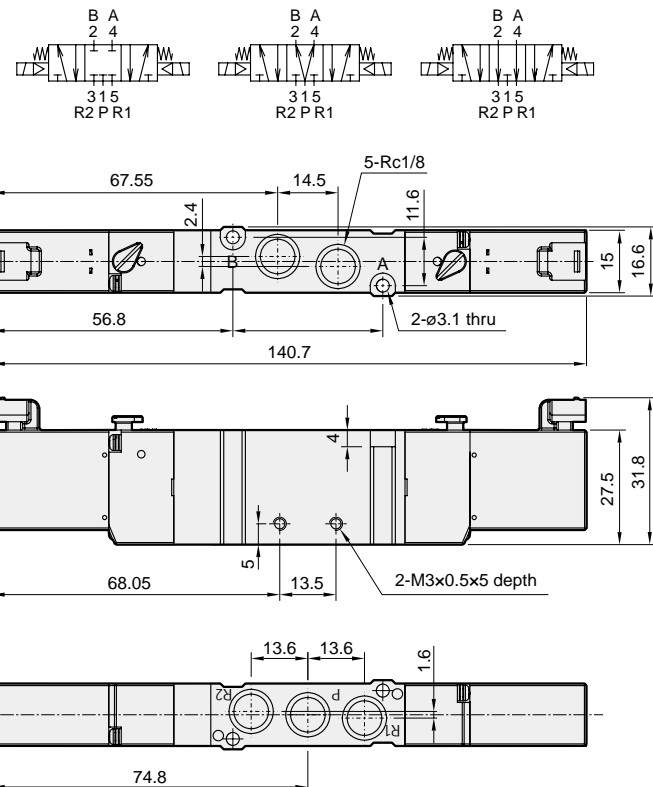


### MVSP-156-4E2C.P.R

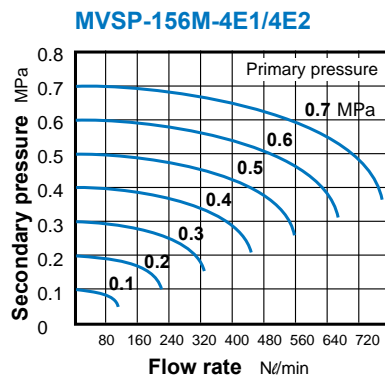
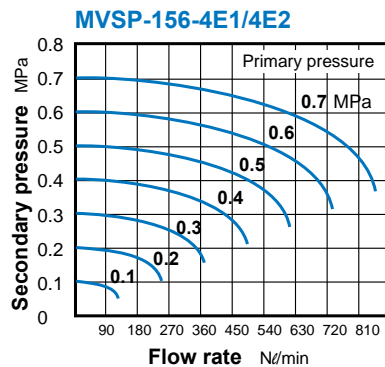
#### MVSP-156-4E2C

#### MVSP-156-4E2P

#### MVSP-156-4E2R



### Flow features



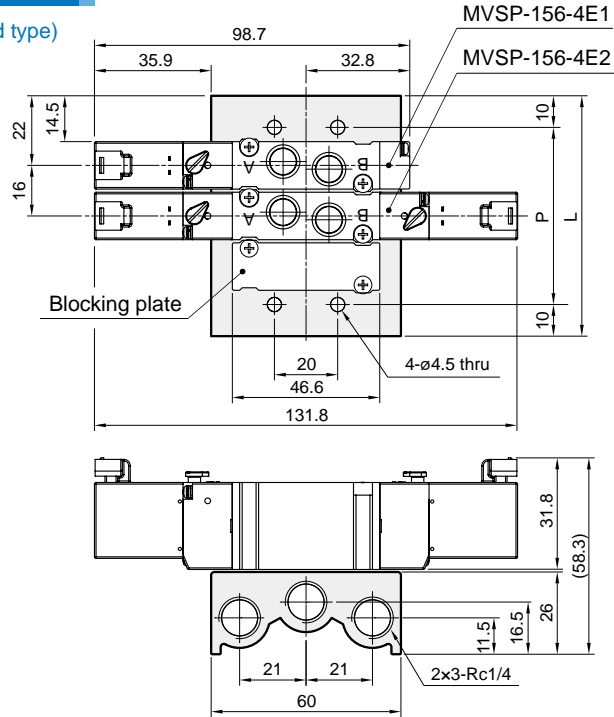
# MVSP-156 Manifold

## SOLENOID VALVE



### MVSY-156-5B\*

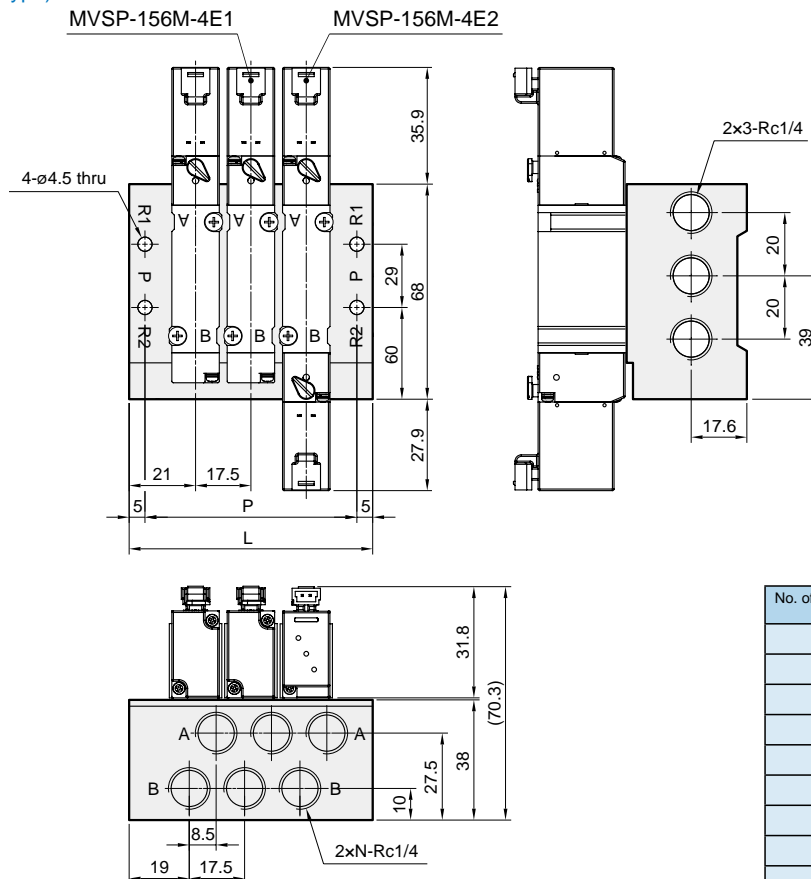
5 port (for body ported type)



No. of stations	P	L
2	40	60
3	56	76
4	72	92
5	88	108
6	104	124
7	120	140
8	136	156
9	152	172
10	168	188

### MVSY-156M-5M\*

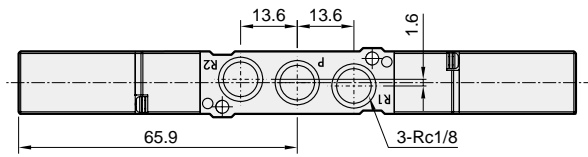
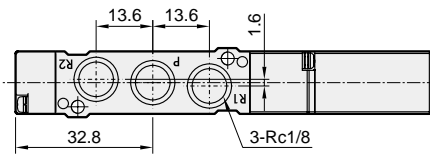
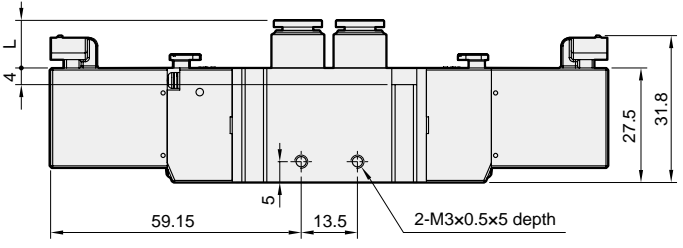
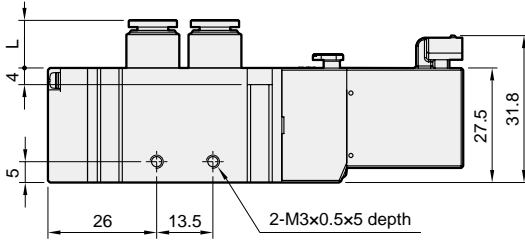
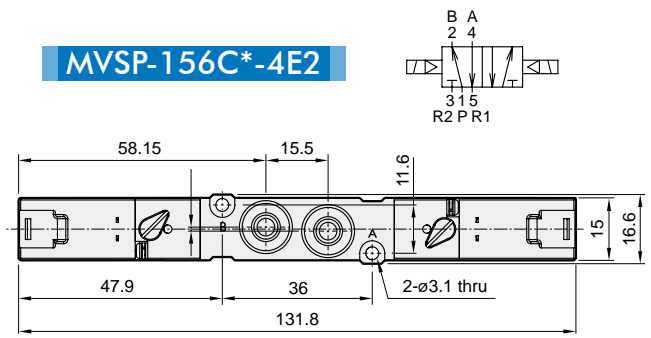
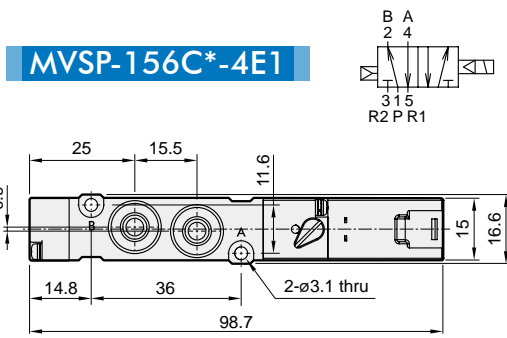
5 port (for manifold type)



No. of stations (N)	P	L
2	49.5	59.5
3	67	77
4	84.5	94.5
5	102	112
6	119.5	129.5
7	137	147
8	154.5	164.5
9	172	182
10	189.5	199.5

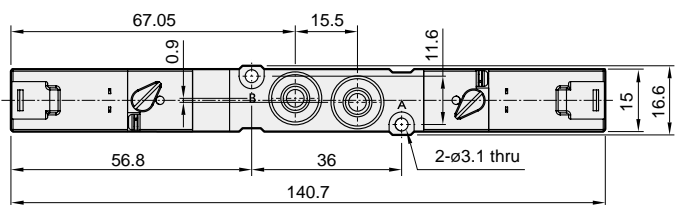
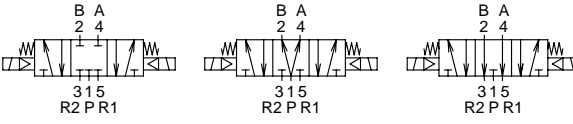
# MVSP-156 Dimensions

## SOLENOID VALVE

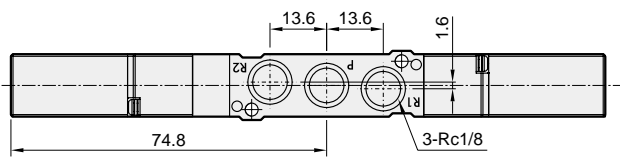
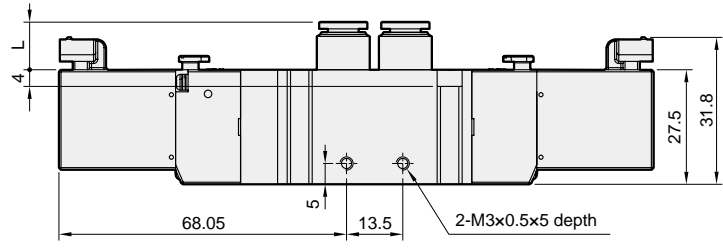


**MVSP-156C\*-4E2C.P.R**

MVSP-156-4E2C    MVSP-156-4E2P    MVSP-156-4E2R



Code Port size	L
C4	13
C6	14
C8	18.5



# MVSP-156 Mounting bracket & Spacer assembly

SOLENOID VALVE



mindman

## Order example of bracket

\* Use the same bracket with MVSYS.

MVSYS – 156 – 1A

MODEL

MOUNTING BRACKET

1A  
2A

## Order example of spacer assembly

\* Use the same spacer assembly with MVSYS.

MVSYS – 156M – 5BP

MODEL

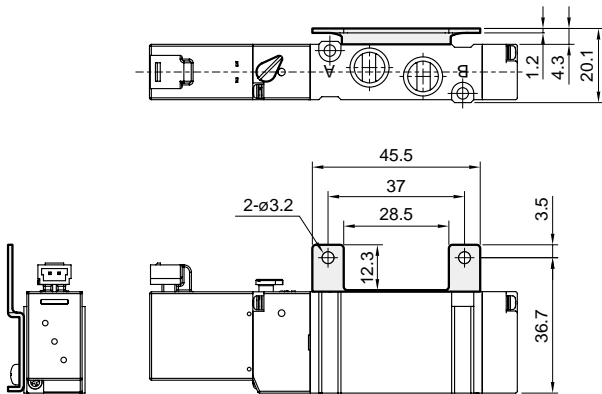
5B: 5 Port (for body ported type)  
5M: 5 Port (for Manifold type)

SPACER ASSEMBLY

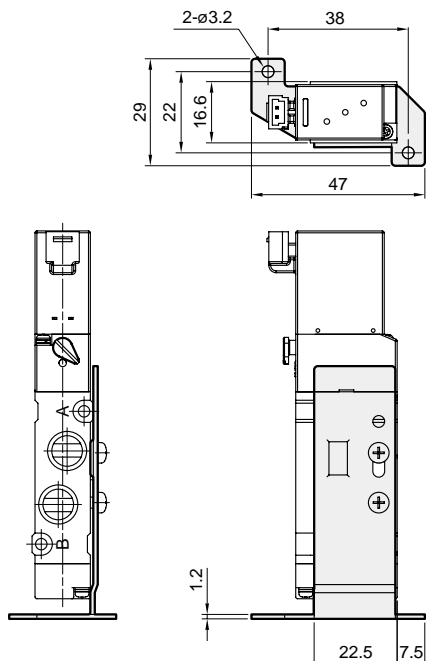
Blank: Body ported type  
M: Manifold type

P: Individual SUP spacer assembly  
R: Individual EXH spacer assembly  
PR: Individual SUP spacer assembly+  
Individual SUP spacer assembly

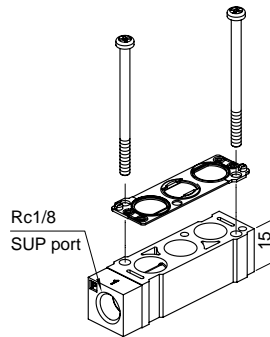
MVSYS-156-1A



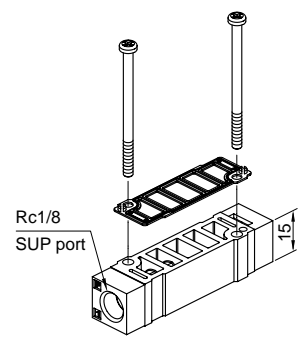
MVSYS-156-2A



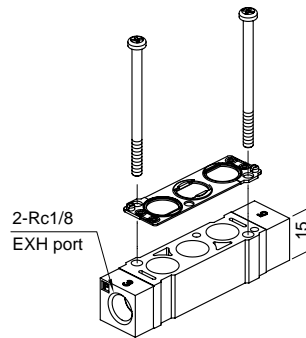
MVSYS-156-5BP



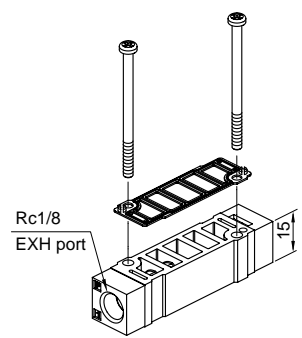
MVSYS-156M-5MP



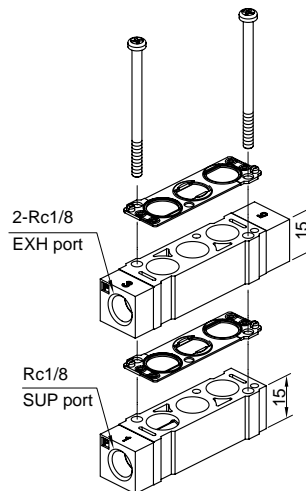
MVSYS-156-5BR



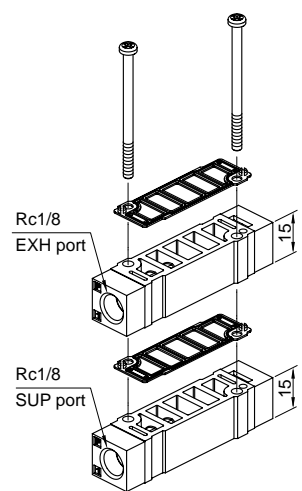
MVSYS-156M-5MR



MVSYS-156-5BPR

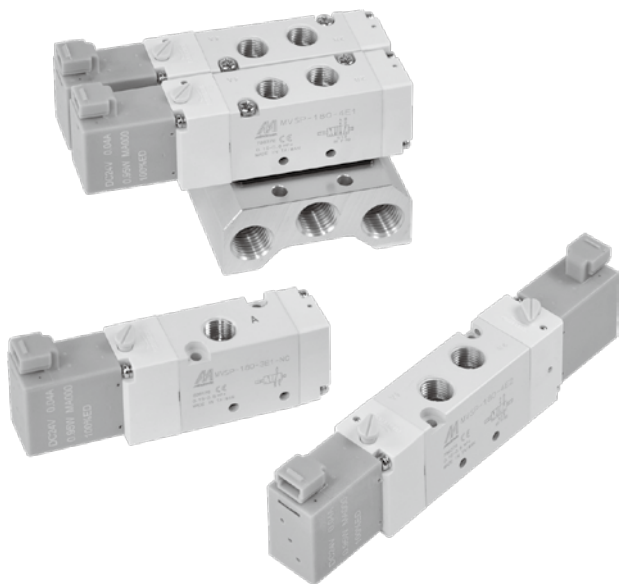


MVSYS-156M-5MPR



# MVSP-180 series

## SOLENOID VALVE

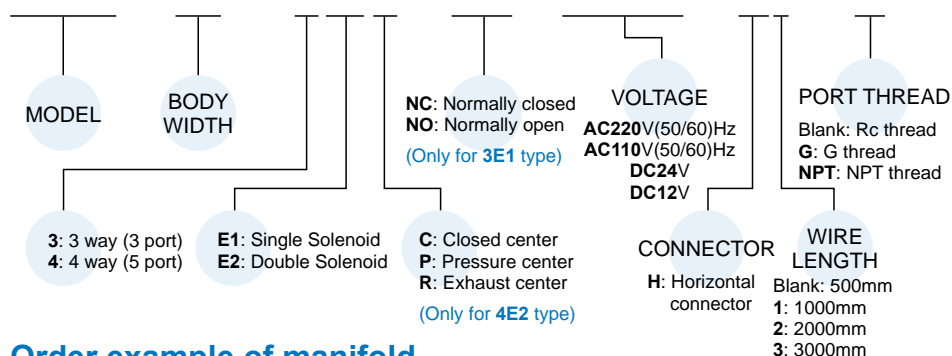


### Specification

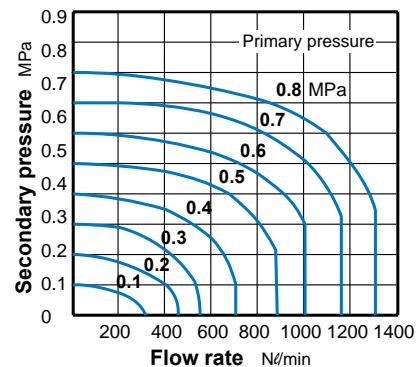
Model	3E1	3E2	4E1	4E2	4E2 C.P.R
Port size	Rc1/8				
No. of port / position	3/2		5/2		5/3
Medium	Air				
Operating pressure range	0.15~0.8 MPa			0.2~0.7 MPa	
Proof pressure	1 MPa				
Effective orifice	15 mm <sup>2</sup>		12 mm <sup>2</sup>		9 mm <sup>2</sup>
Response time	30 ms				
Ambient temperature	-5~+50°C (No freezing)				
Voltage	AC110V, 220V (50/60)Hz, DC24/12V				
Power consumption	AC=2.5VA, DC=0.95W				
Available voltage range	±10%				
Insulation class	F class				
Weight	90 g	125 g	94 g	129 g	143 g

### Order example of valve

**MVSP – 180 – 4E2C – NC – AC110 – H1 – G**

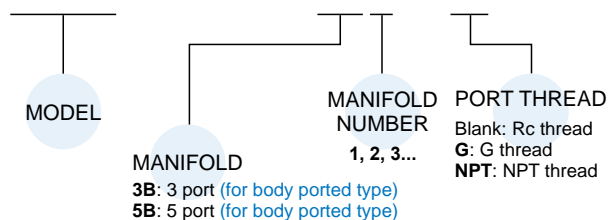


### Flow features



### Order example of manifold

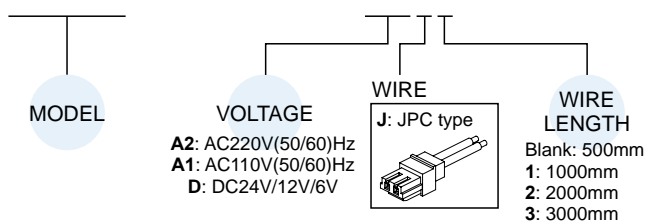
**MVSP – 180 – 3B3 – G**



### Order example of wire

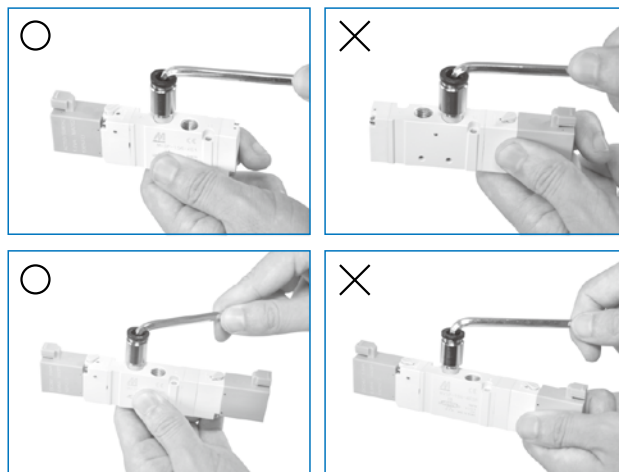
\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



### Caution

Prohibit apply force to coil when tighten the tube fitting.

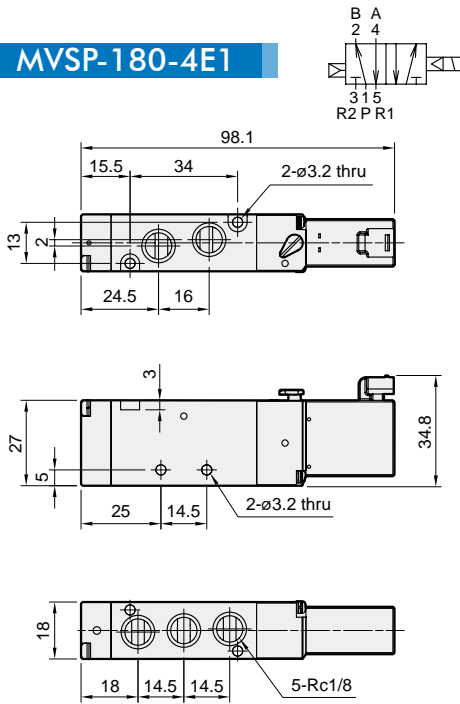


# MVSP-180 Dimensions

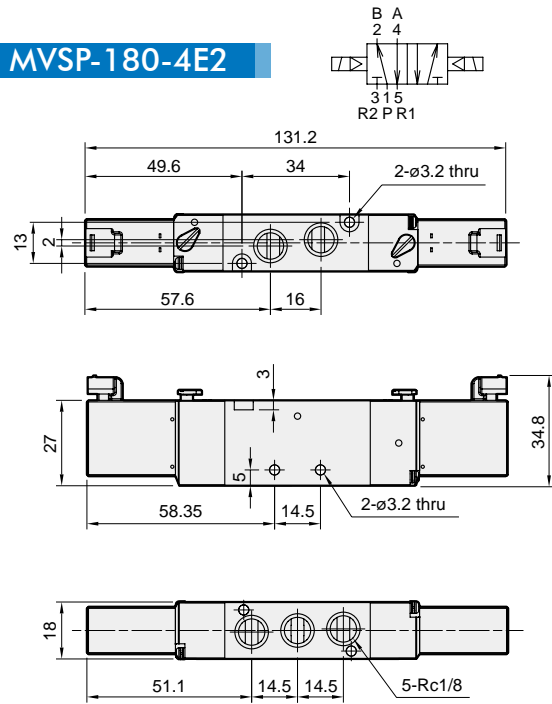
## SOLENOID VALVE



### MVSP-180-4E1

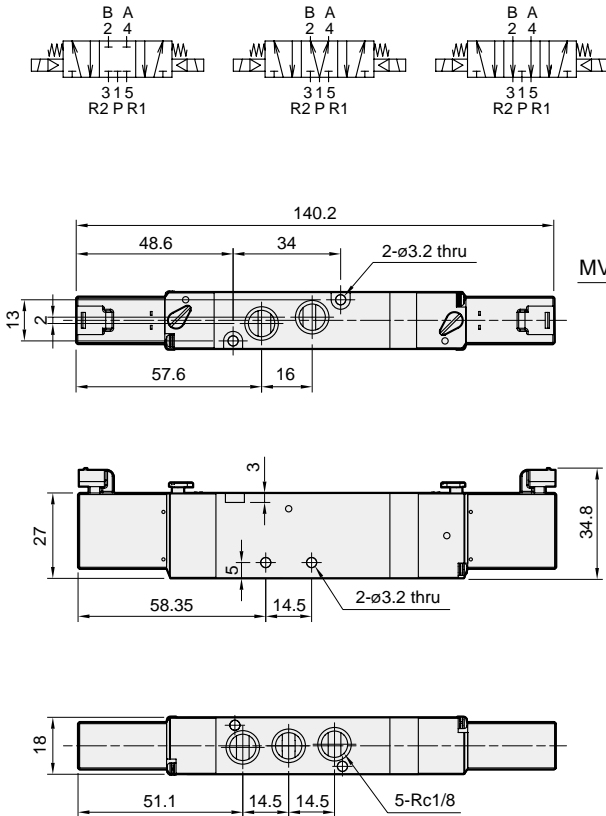


### MVSP-180-4E2



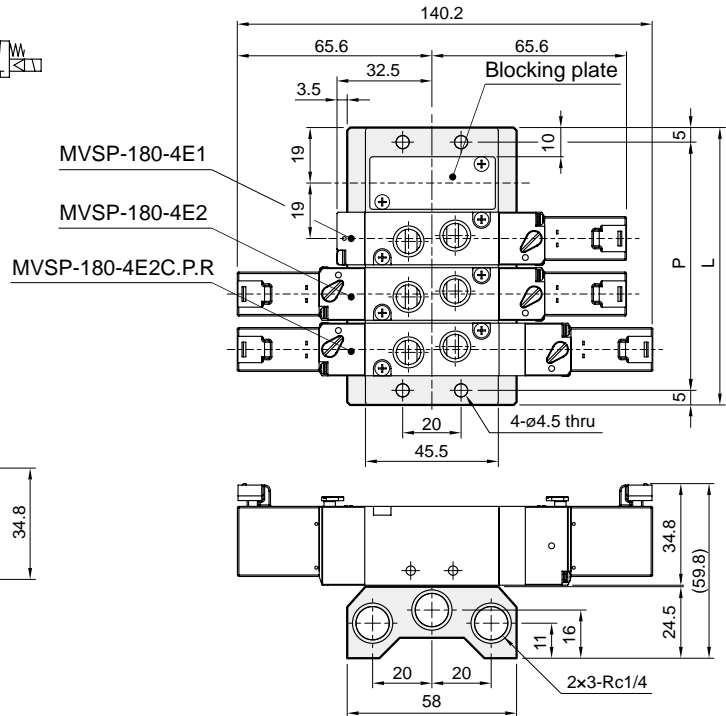
### MVSP-180-4E2C.P.R

#### MVSP-180-4E2C MVSP-180-4E2P MVSP-180-4E2R



### MVSP-180-5B\*

5 port (for body ported type)



No. of stations	P	L
2	47	57
3	66	76
4	85	95
5	104	114
6	123	133

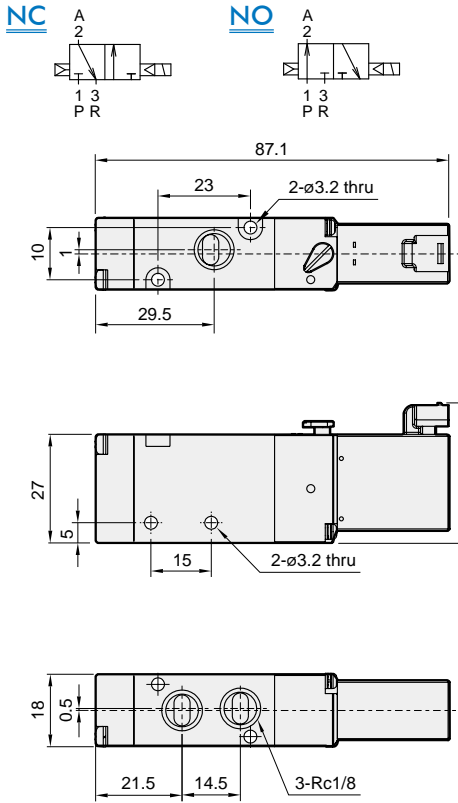
No. of stations	P	L
7	142	152
8	161	171
9	180	190
10	199	209

# MVSP-180 Dimensions

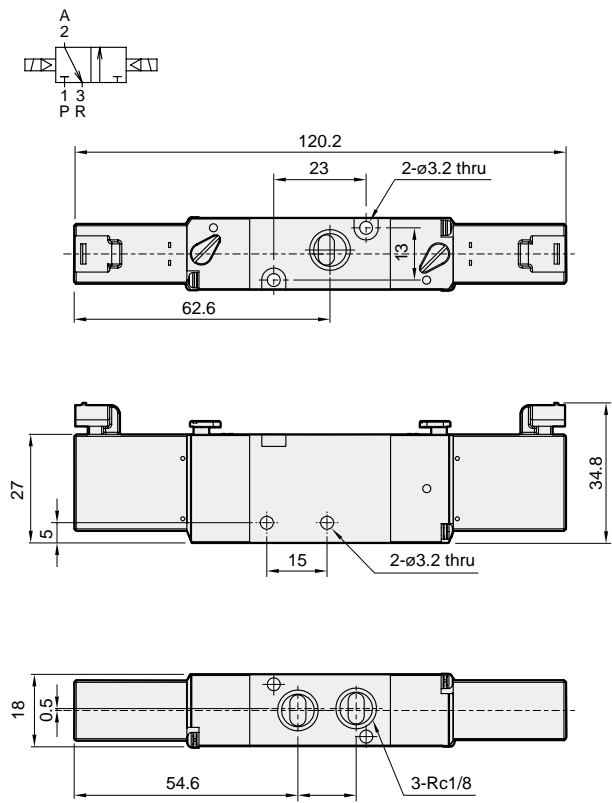
## SOLENOID VALVE



### MVSP-180-3E1-NC/NO

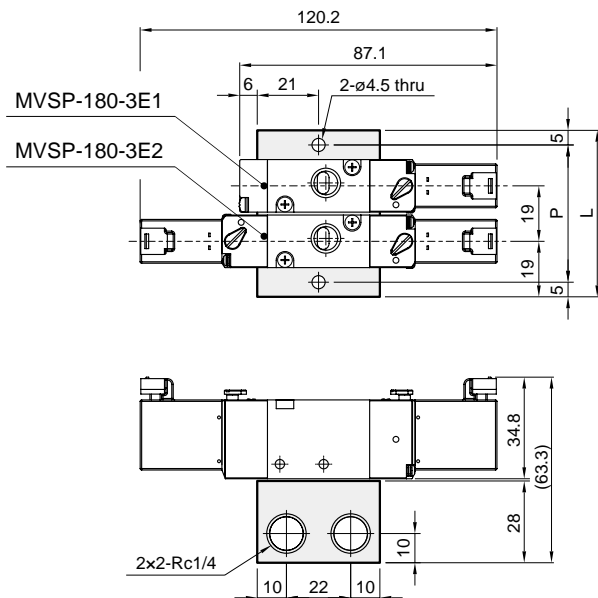


### MVSP-180-3E2



### MVSP-180-3B\*

3 port (for body ported type)



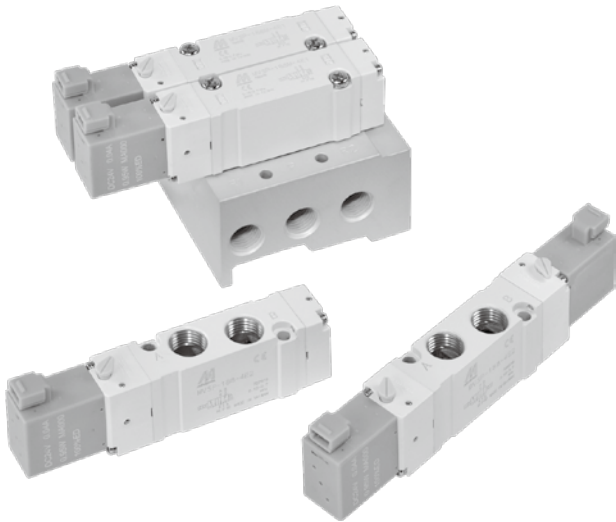
No. of stations	P	L
2	47	57
3	66	76
4	85	95
5	104	114
6	123	133
7	142	152
8	161	171
9	180	190
10	199	209

# MVSP-188 series

## SOLENOID VALVE



mindman

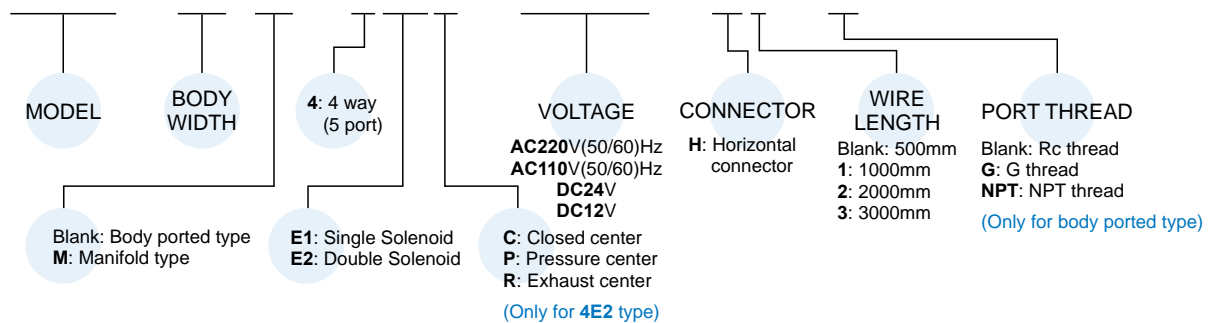


### Specification

Model	4E1	4E2	4E2 C.P.R
Port size	Rc1/4		
No. of port / position	5/2		5/3
Medium	Air		
Operating perssure range	0.15~0.7 MPa		0.2~0.7 MPa
Proof pressure	1 MPa		
Effective orifice	Body ported	15 mm <sup>2</sup>	16.3/27/12.4 mm <sup>2</sup>
	Manifold	13 mm <sup>2</sup>	13.5/18.4/11 mm <sup>2</sup>
Reponse time	30 ms		
Ambient temperature	-5~+50°C (No freezing)		
Voltage	AC110V, 220V (50/60)Hz, DC24/12V		
Power consumption	AC=2.5VA, DC=0.95W		
Available voltage range	±10%		
Insulation calss	F class		
Weight	96 g	132 g	142 g

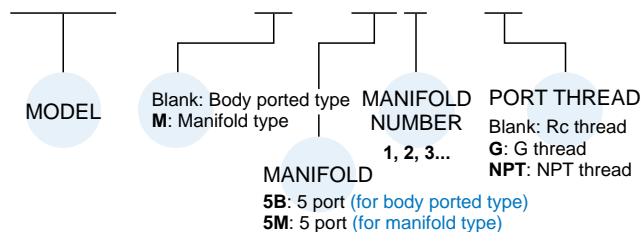
### Order example of valve

**MVSP – 188M – 4E2C – AC110 – H1 – G**



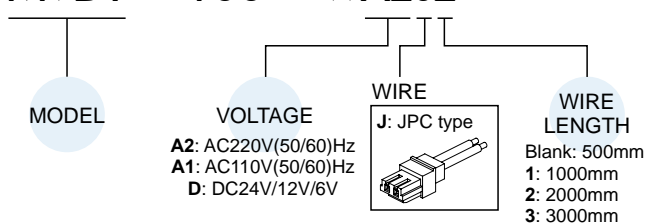
### Order example of manifold \* Use the same manifold with MVSJ.

**MVSJ – 188M – 5B3 – G**



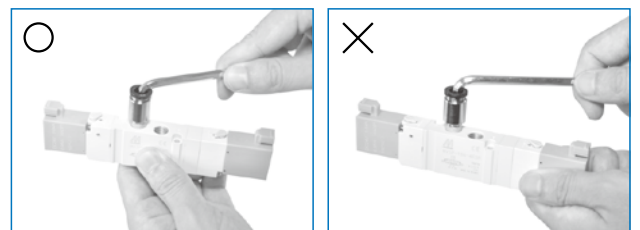
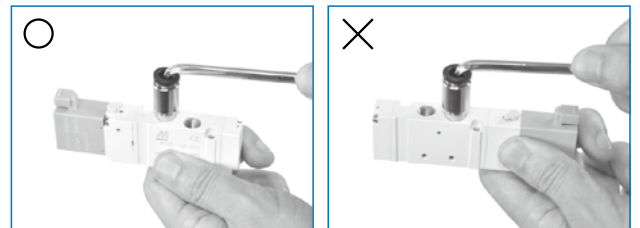
### Order example of wire \* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



### Caution

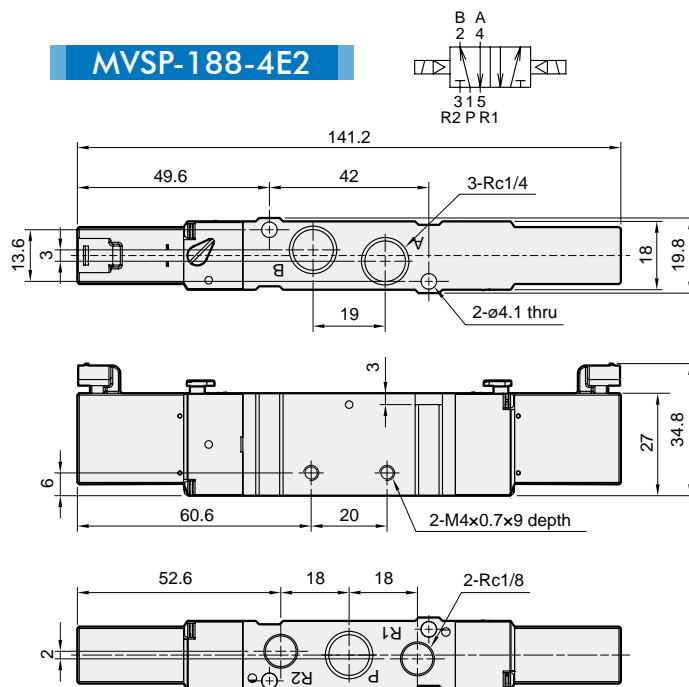
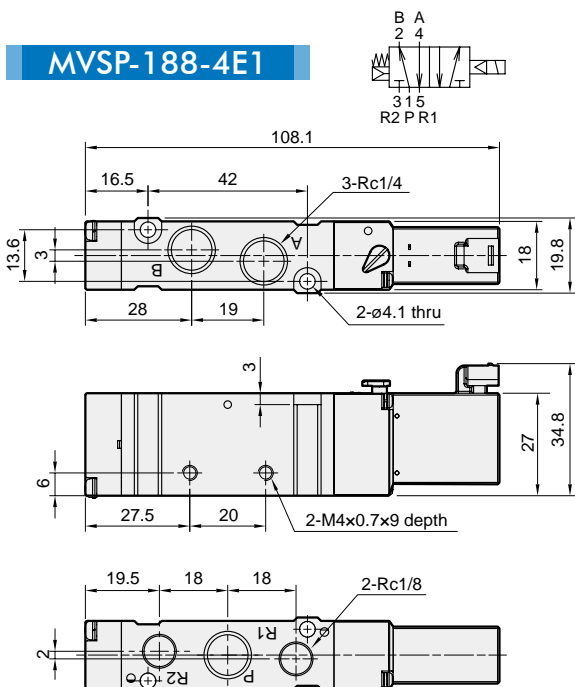
Prohibit apply force to coil when tighten the tube fitting.





# MVSP-188 Dimensions

## SOLENOID VALVE

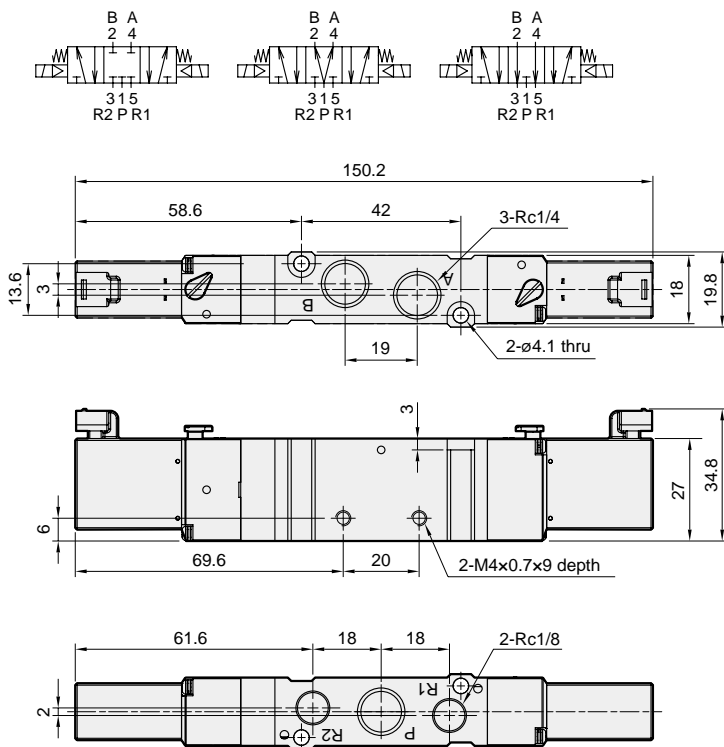


### MVSP-188-4E2C.PR

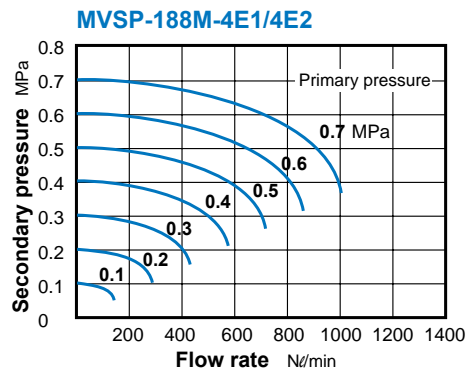
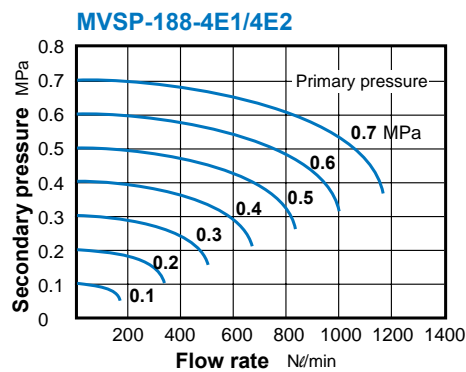
MVSP-188-4E2C

MVSP-188-4E2P

MVSP-188-4E2R



## Flow features



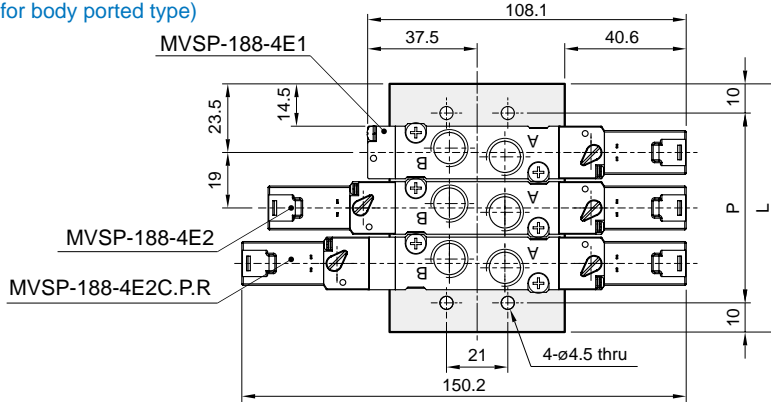
# MVSP-188 Manifold

## SOLENOID VALVE

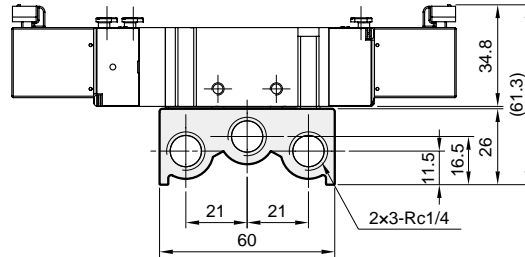


### MVSP-188-5B\*

5 port (for body ported type)

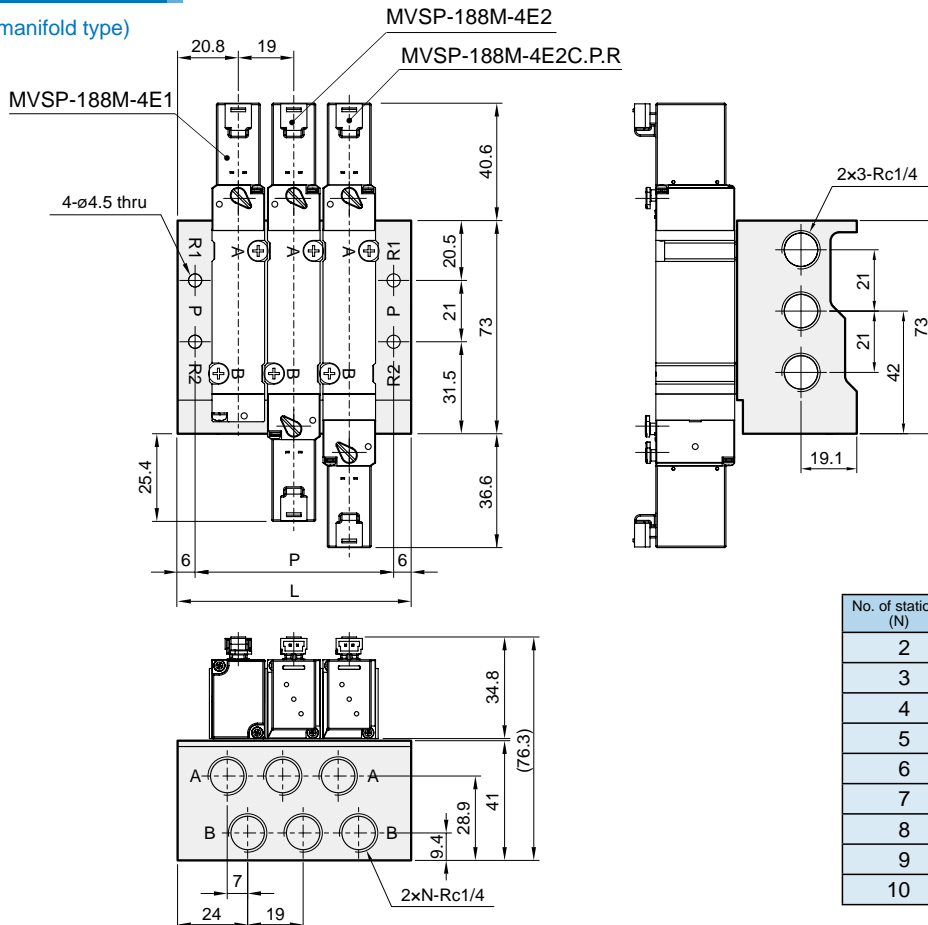


No. of stations	P	L
2	46	66
3	65	85
4	84	104
5	103	123
6	122	142
7	141	161
8	160	180
9	179	199
10	198	218



### MVSP-188M-5M\*

5 port (for manifold type)



No. of stations (N)	P	L
2	49	61
3	68	80
4	87	99
5	106	118
6	125	137
7	144	156
8	163	175
9	182	194
10	201	213

# MVSP-188 Mounting bracket & Spacer assembly

SOLENOID VALVE



## Order example of bracket

\* Use the same bracket with MVS.Y.

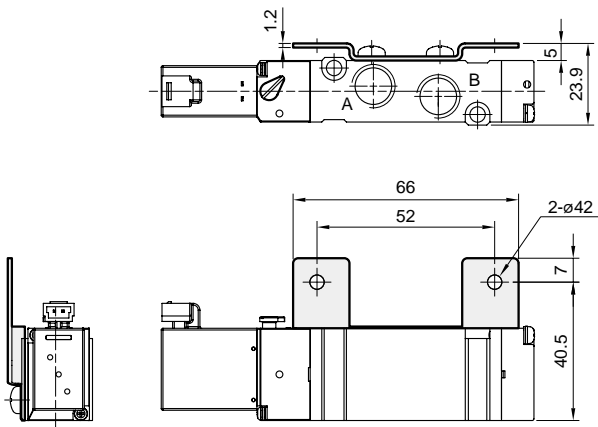
MVS.Y – 188 – 1A

MODEL

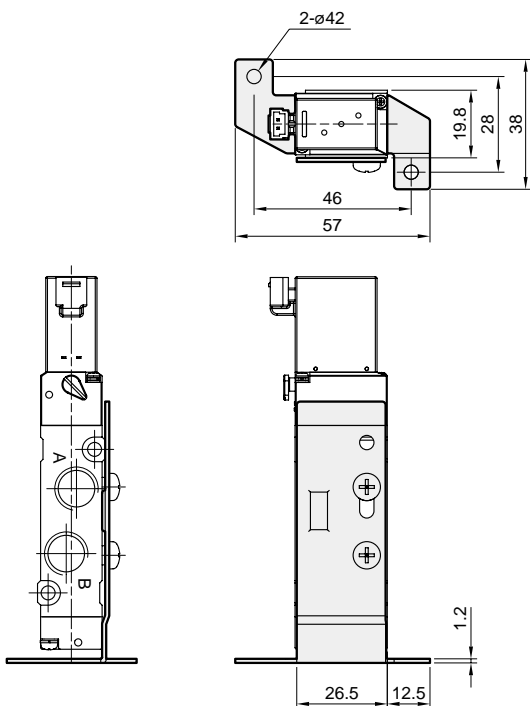
MOUNTING BRACKET

1A  
2A

MVS.Y-188-1A



MVS.Y-188-2A



## Order example of spacer assembly

\* Use the same spacer assembly with MVS.Y.

MVS.Y – 188M – 5BP

MODEL

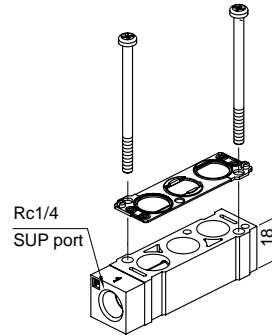
5B: 5 Port (for body ported type)  
5M: 5 Port (for Manifold type)

SPACER ASSEMBLY

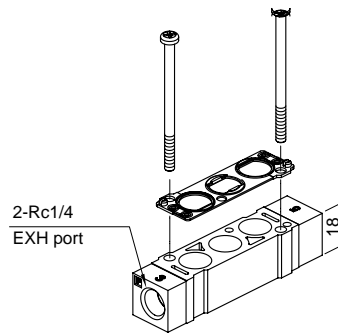
Blank: Body ported type  
M: Manifold type

P: Individual SUP spacer assembly  
R: Individual EXH spacer assembly  
PR: Individual SUP spacer assembly+  
Individual SUP spacer assembly

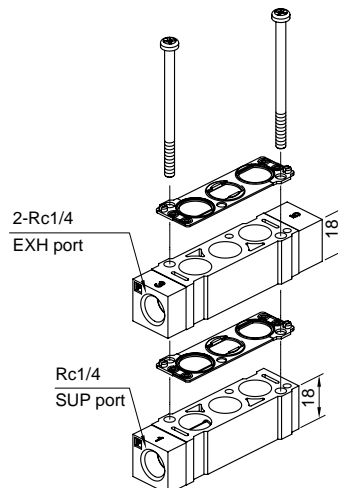
MVS.Y-188-5BP



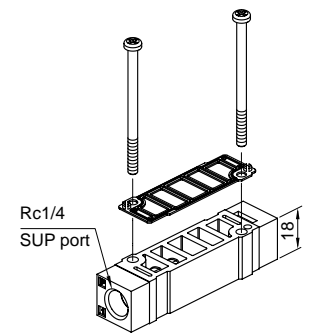
MVS.Y-188-5BR



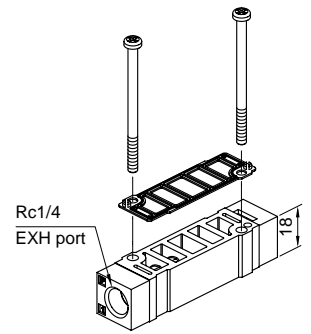
MVS.Y-188-5BPR



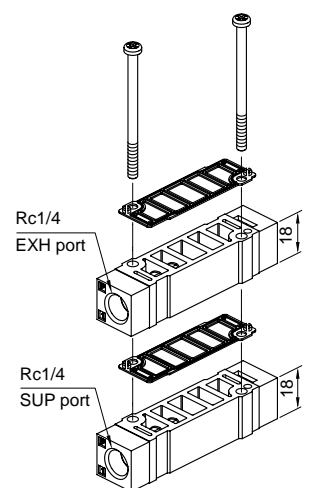
MVS.Y-188M-5MP



MVS.Y-188M-5MR



MVS.Y-188M-5MPR

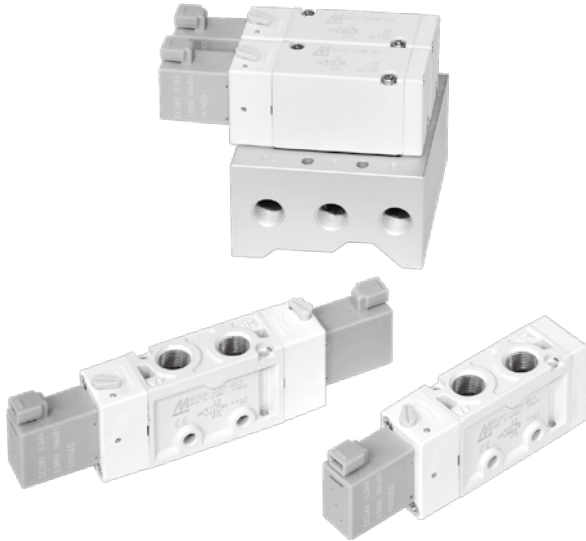


# MVSP-220 series

## SOLENOID VALVE



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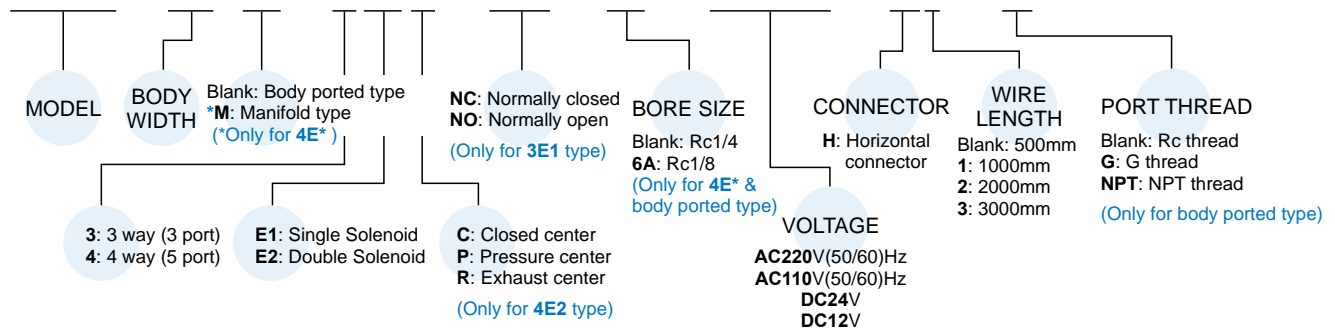


### Specification

Model	3E1	3E2	4E1	4E2	4E2 C.P.R
Port size	Rc1/4		Rc1/8, Rc1/4		
No. of port / position	3/2		5/2	5/3	
Medium	Air				
Operating pressure range	0.2~0.8 MPa			0.3~0.8 MPa	
Proof pressure	1 MPa				
Effective orifice	18 mm <sup>2</sup>			16 mm <sup>2</sup>	
Response time	30 ms			40 ms	
Ambient temperature	-5~+50°C (No freezing)				
Voltage	AC110V, 220V (50/60)Hz, DC24/12V				
Power consumption	AC=2.5VA, DC=0.95W				
Available voltage range	±10%				
Insulation class	F class				
Weight	86 g	130 g	108 g	152 g	198 g

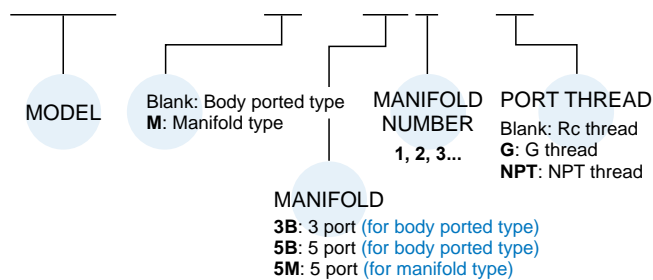
### Order example of valve

**MVSP – 220M – 4E2C – NC – □ – AC110 – H1 – G**



### Order example of manifold

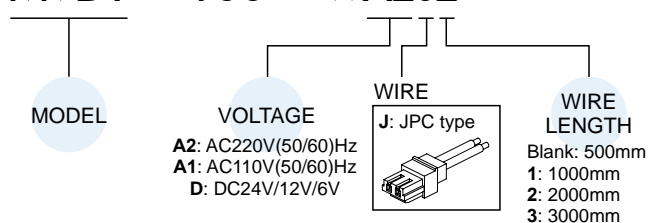
**MVSC – 220M – 5B3 – G**



### Order example of wire

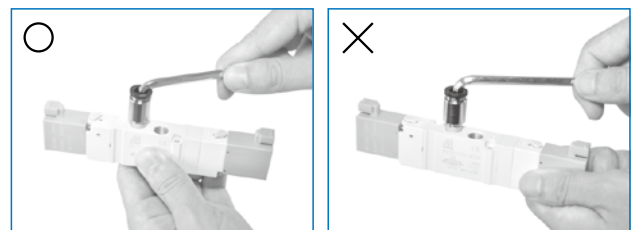
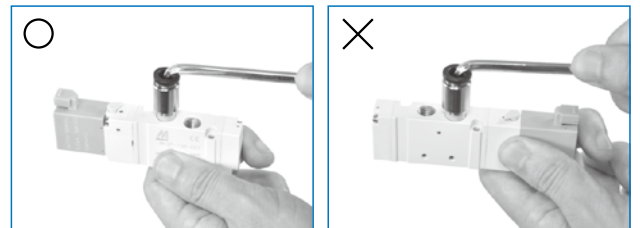
\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



### Caution

Prohibit apply force to coil when tighten the tube fitting.

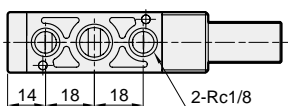
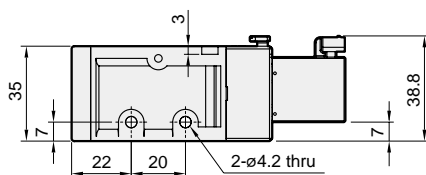
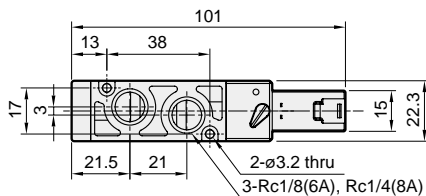
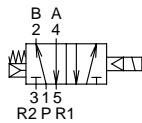


# MVSP-220 Dimensions

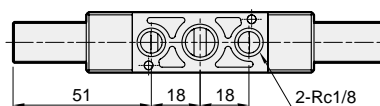
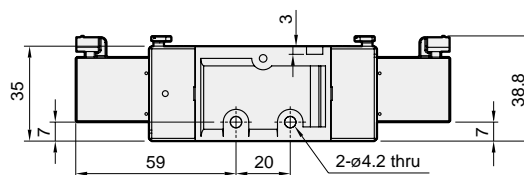
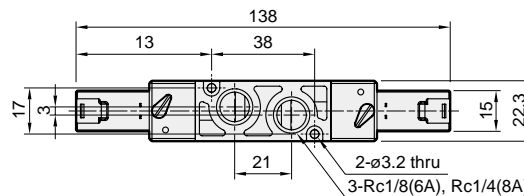
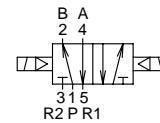
## SOLENOID VALVE



### MVSP-220-4E1



### MVSP-220-4E2

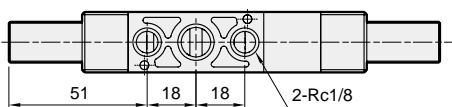
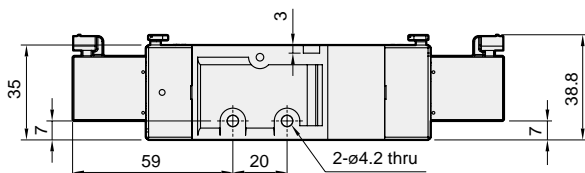
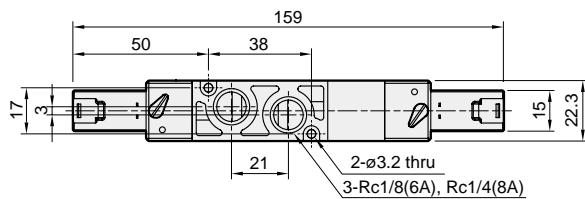
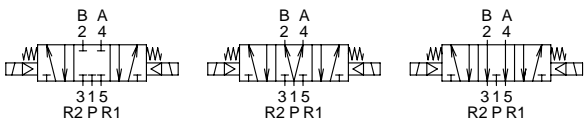


### MVSP-220-4E2C.P.R

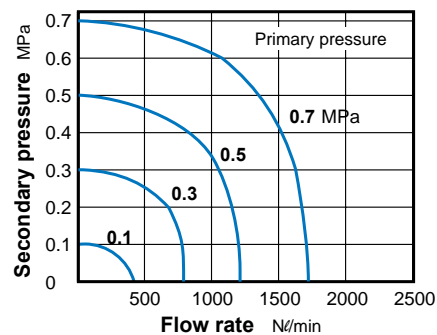
#### MVSP-220-4E2C

#### MVSP-220-4E2P

#### MVSP-220-4E2R



### Flow features

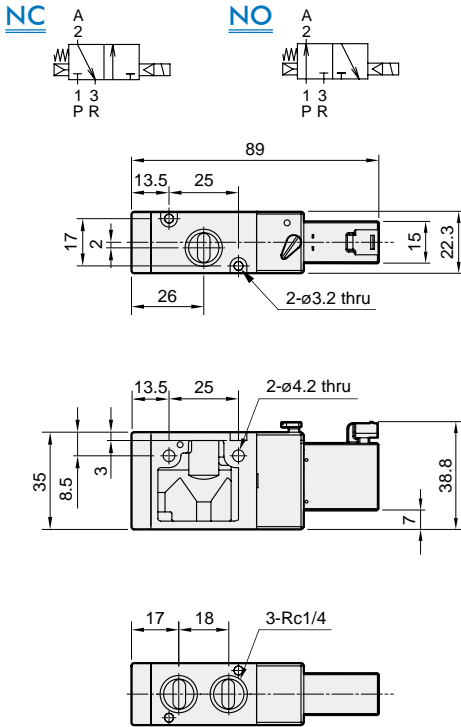


# MVSP-220 Dimensions

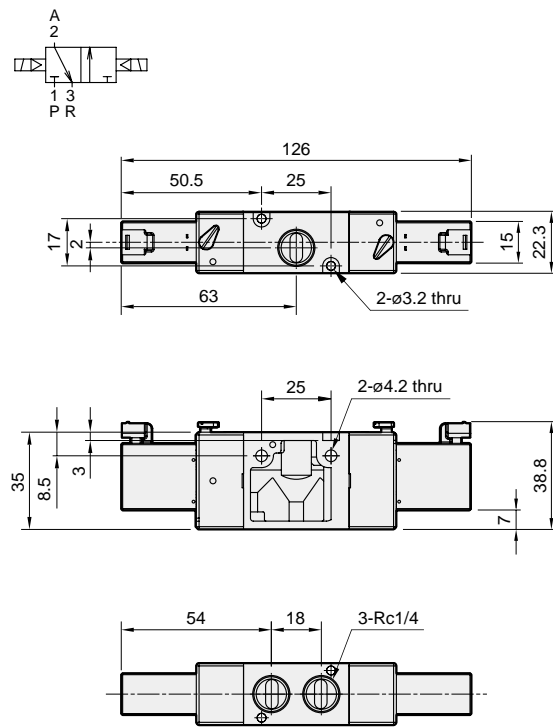
## SOLENOID VALVE



### MVSP-220-3E1-NC/NO

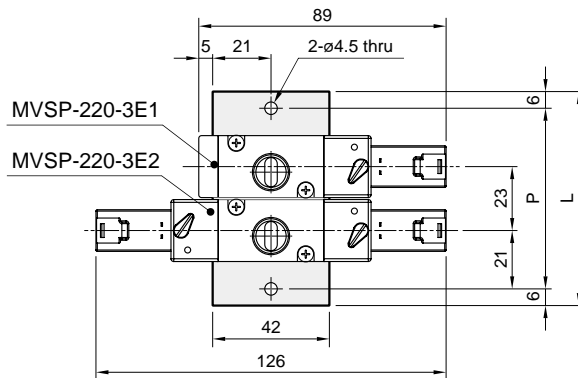


### MVSP-220-3E2

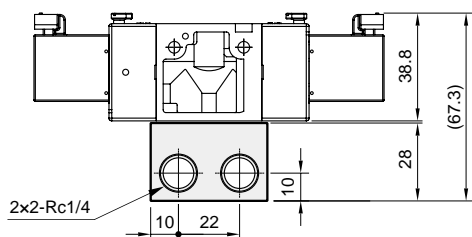


### MVSC-220-3B\*

3 port (for body ported type)



No. of stations	P	L
2	65	77
3	88	100
4	111	123
5	134	146
6	157	169
7	180	192
8	203	215
9	226	238
10	249	261



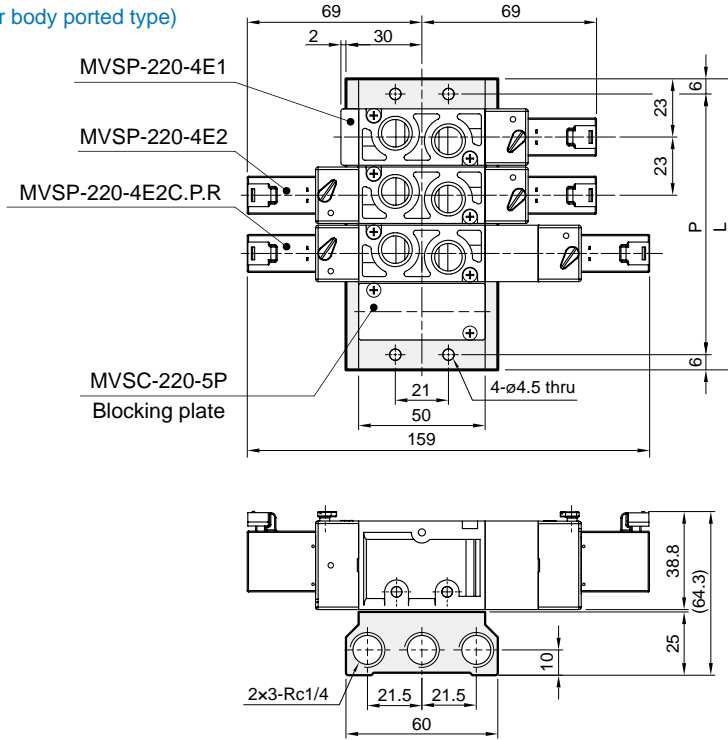
# MVSP-220 Manifold

## SOLENOID VALVE



### MVSC-220-5B\*

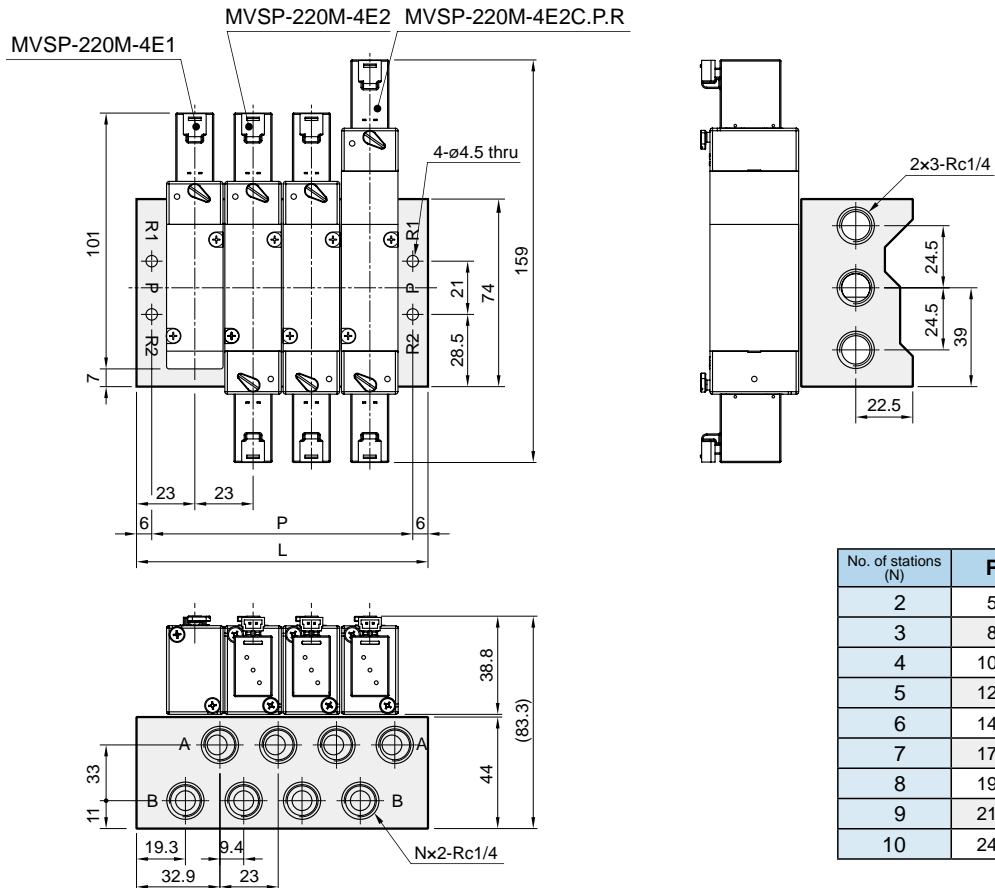
5 port (for body ported type)



No. of stations	P	L
2	57	69
3	80	92
4	103	115
5	126	138
6	149	161
7	172	184
8	195	207
9	218	230
10	241	253

### MVSC-220M-5M\*

5 port (for manifold type)



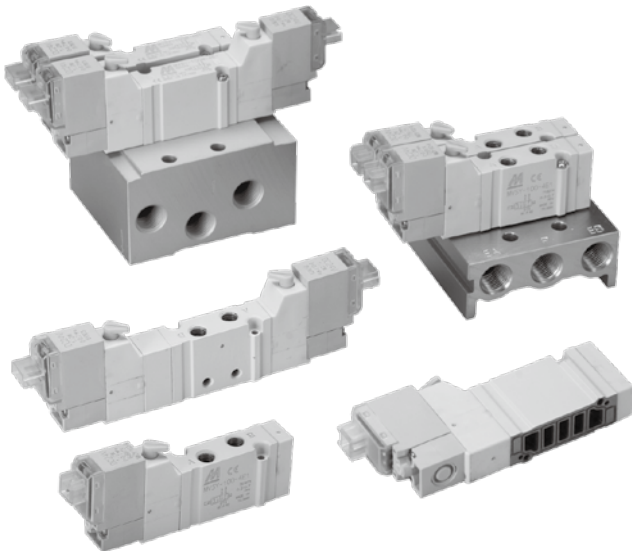
No. of stations (N)	P	L
2	57	69
3	80	92
4	103	115
5	126	138
6	149	161
7	172	184
8	195	207
9	218	230
10	241	253

# MVSY-100 series

## SOLENOID VALVE



Mindman

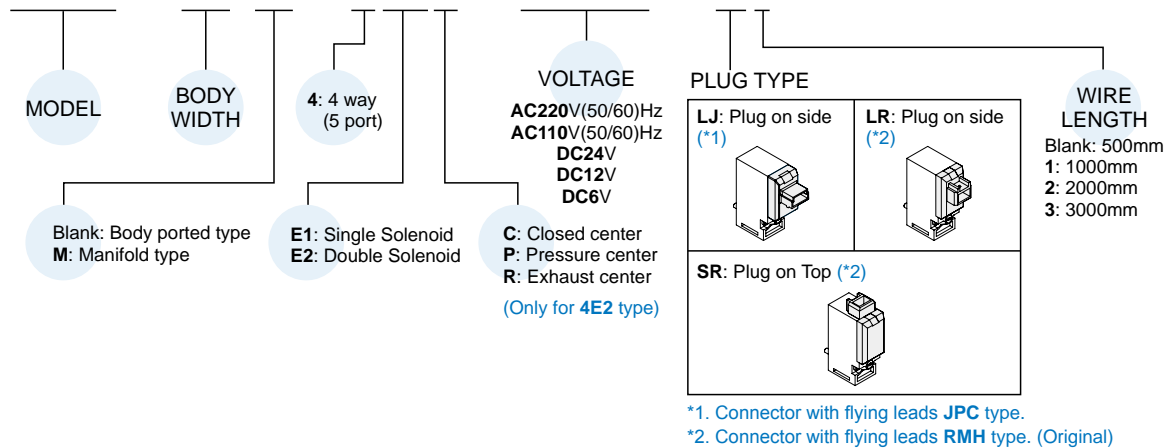


### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	M5		
Port size	M5×0.8		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.2~0.7 MPa		
Proof pressure	1 MPa		
Effective orifice	Body ported	4.5 mm <sup>2</sup>	
	Manifold	4.5 mm <sup>2</sup>	4.5/4/4.5 mm <sup>2</sup>
Reponse time	12 ms	15 ms	
Ambient temperature	+5~+50°C		
Voltage	AC110V, 220V (50/60)Hz, DC24/12/6V		
Power consumption	AC=1.6/2.5VA, DC=0.55W (LED indicator)		
Available voltage range	±10%		
Insulation calss	B class		
Weight	30 g	43 g	55 g

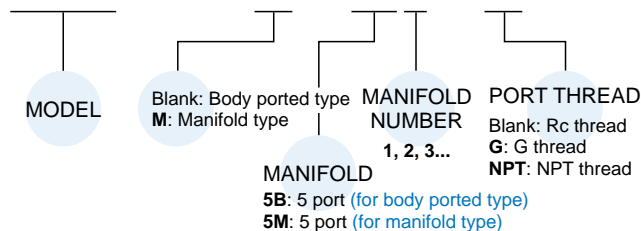
### Order example of valve

**MVSY – 100M – 4E2C – AC110 – LJ1**



### Order example of manifold

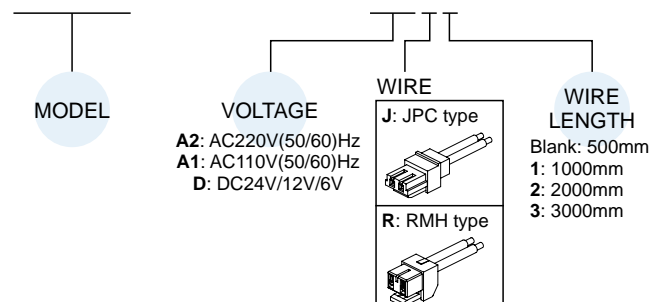
**MVSY – 100M – 5B3 – G**



### Order example of wire

\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



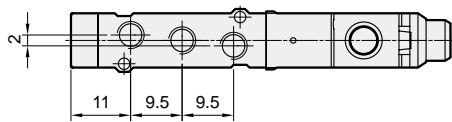
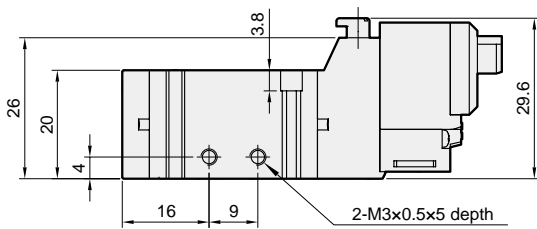
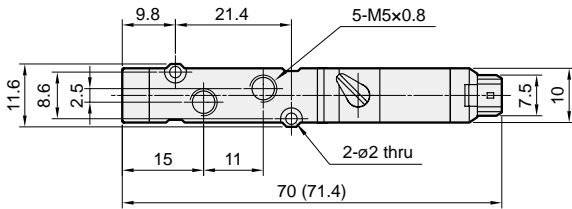
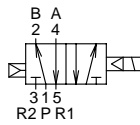


# MVSY-100 Dimensions

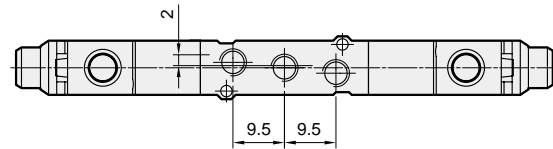
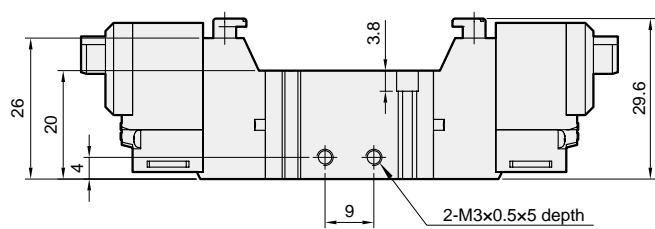
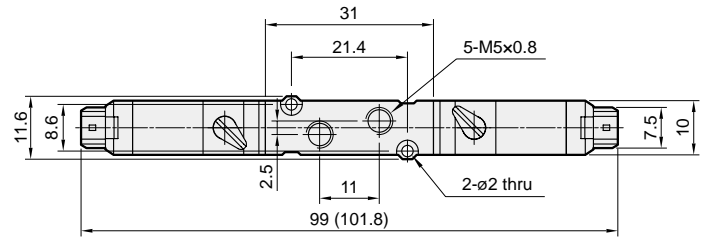
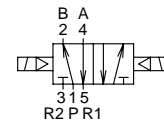
## SOLENOID VALVE



### MVSY-100-4E1



### MVSY-100-4E2

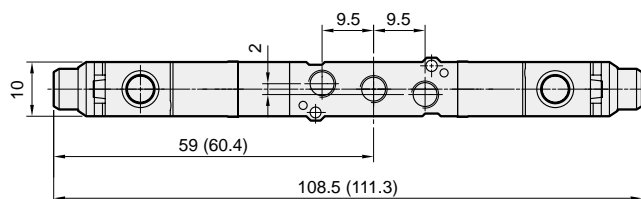
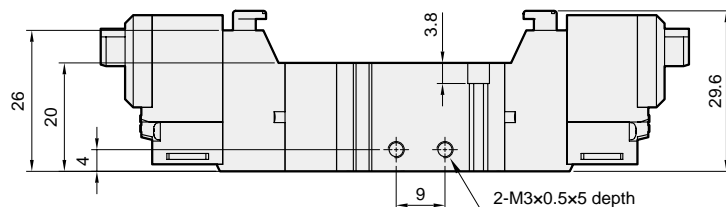
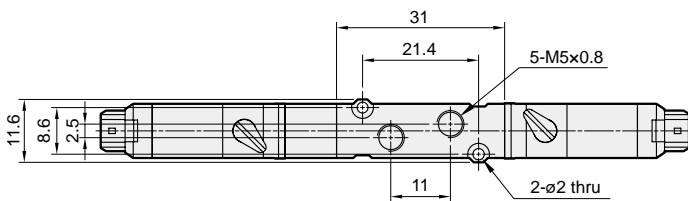
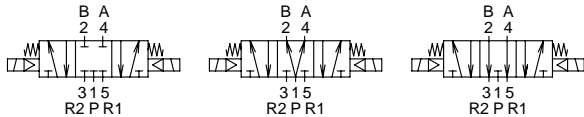


### MVSY-100-4E2C.PR

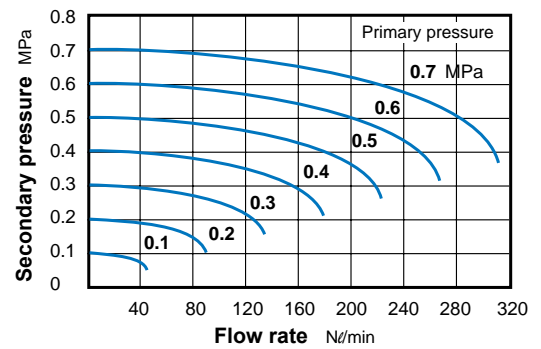
#### MVSY-100-4E2C

#### MVSY-100-4E2P

#### MVSY-100-4E2R



### Flow features



( ) : Dimension for LJ plug type.

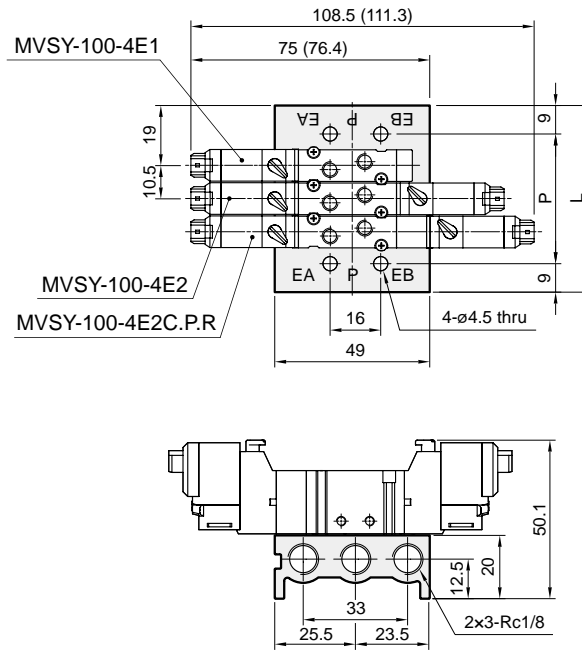
# MVSY-100 Manifold

## SOLENOID VALVE



### MVSY-100-5B\*

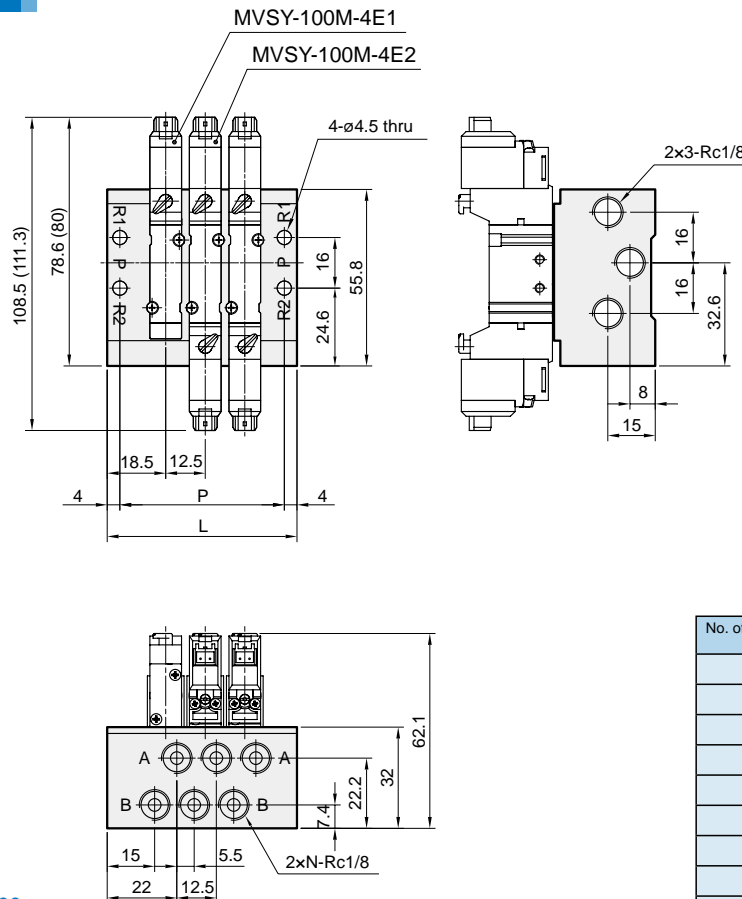
5 port (for body ported type)



No. of stations	P	L
2	30.5	48.5
3	41	59
4	51.5	69.5
5	62	80
6	72.5	90.5
7	83	101
8	93.5	111.5
9	104	122
10	114.5	135.5

### MVSY-100M-5M\*

5 port (for manifold type)



No. of stations (N)	P	L
2	39.5	47.5
3	52	60
4	64.5	72.5
5	77	85
6	89.5	97.5
7	102	110
8	114.5	122.5
9	127	135
10	139.5	147.5

( ): Dimension for LJ plug type.

# MVSY-100 Mounting bracket

SOLENOID VALVE



Order example of bracket

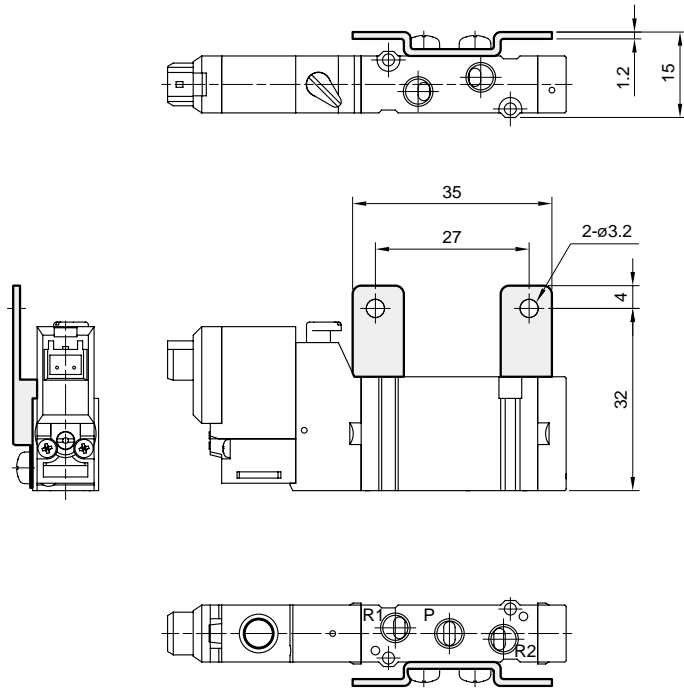
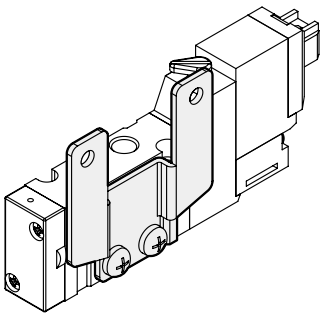
MVSY – 100 – 1A

MODEL

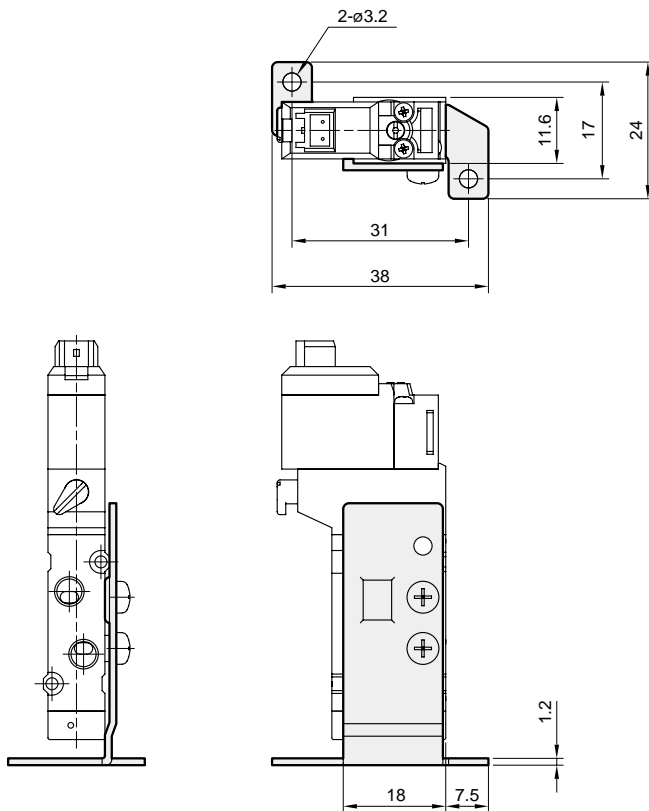
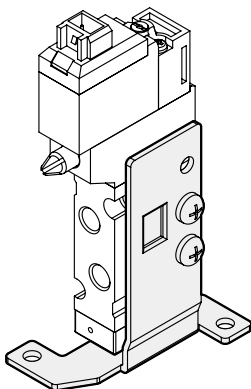
MOUNTING BRACKET

1A  
2A

MVSY-100-1A



MVSY-100-2A

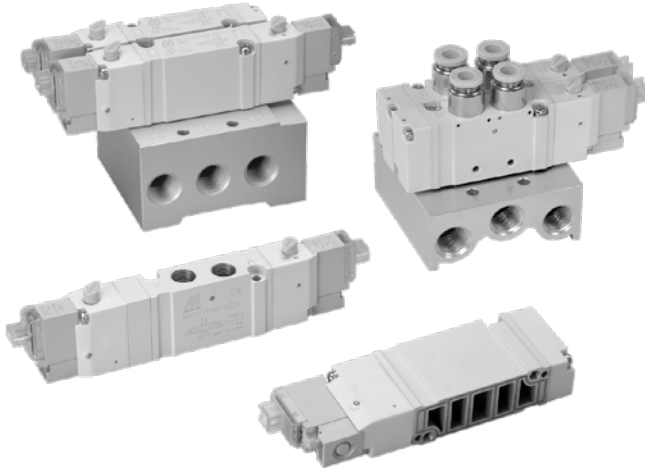


# MVSY-156 series

## SOLENOID VALVE



Mindman

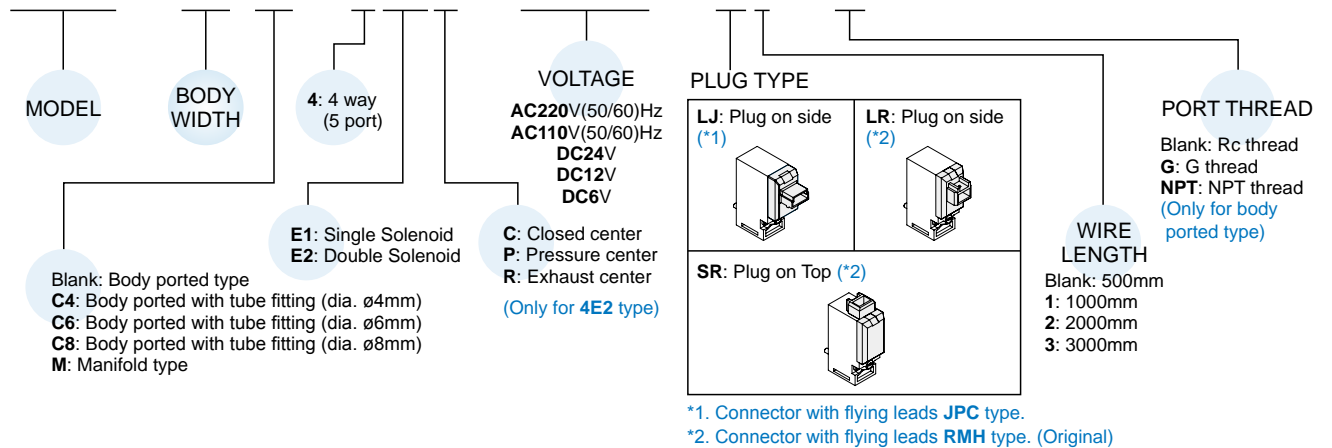


### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	6A		
Port size	Rc1/8		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.15~0.7 MPa	0.2~0.7 MPa	
Proof pressure	1 MPa		
Effective orifice	Body ported	11 mm <sup>2</sup>	9.5/14.6/9.5 mm <sup>2</sup>
	Manifold	10 mm <sup>2</sup>	7.5/13/8 mm <sup>2</sup>
Reponse time	19 ms	20 ms	
Ambient temperature	+5~+50°C		
Voltage	AC110V, 220V (50/60)Hz, DC24/12/6V		
Power consumption	AC=1.6/2.5VA, DC24V=0.55W, DC12/6V=1.2W		
Available voltage range	±10%		
Insulation calss	B class		
Weight	68 g	87 g	96 g

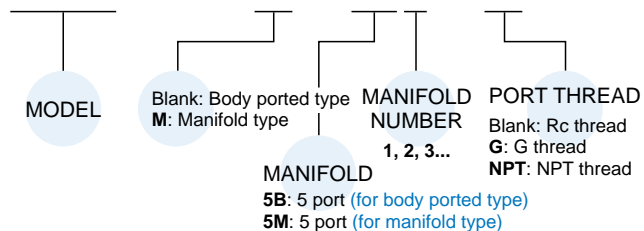
### Order example of valve

**MVSY – 156M – 4E2C – AC110 – LJ1 – G**



### Order example of manifold

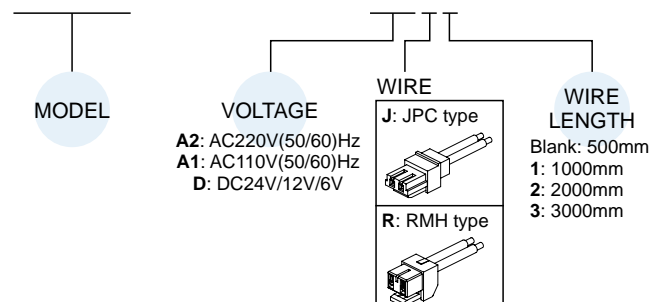
**MVSY – 156M – 5B3 – G**



### Order example of wire

\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**

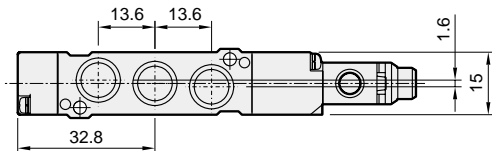
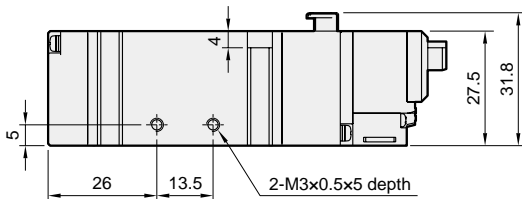
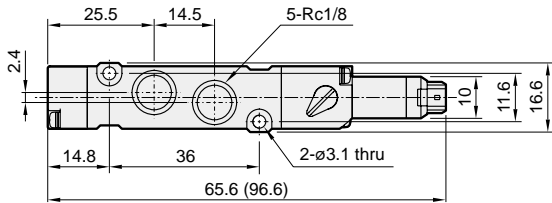
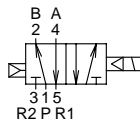


# MVSY-156 Dimensions

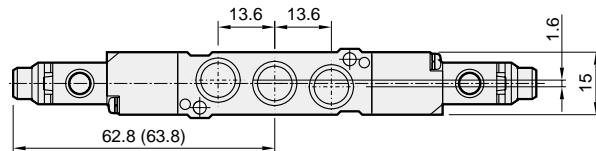
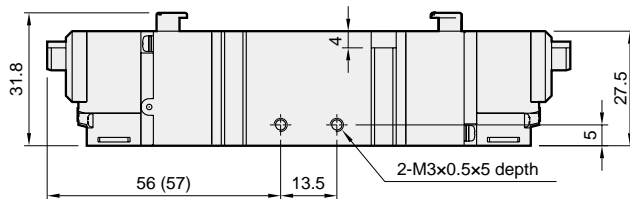
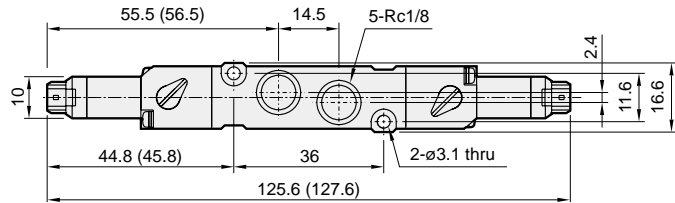
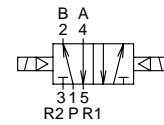
## SOLENOID VALVE



### MVSY-156-4E1



### MVSY-156-4E2

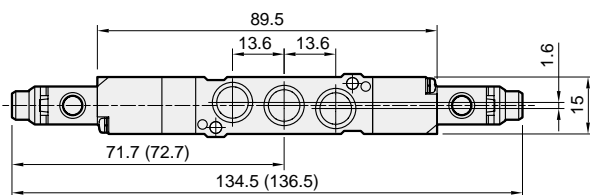
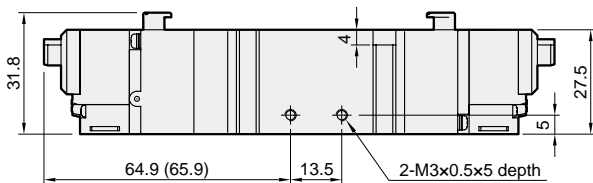
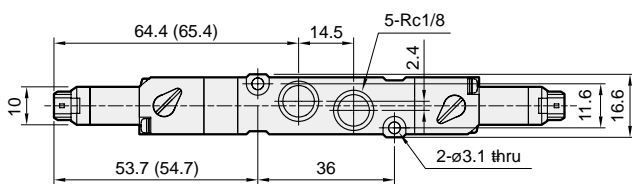
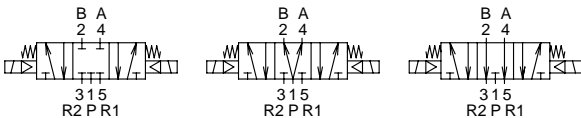


### MVSY-156-4E2C.P.R

#### MVSY-156-4E2C

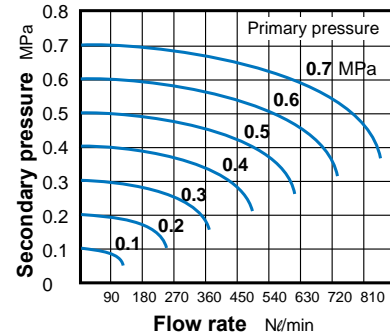
#### MVSY-156-4E2P

#### MVSY-156-4E2R

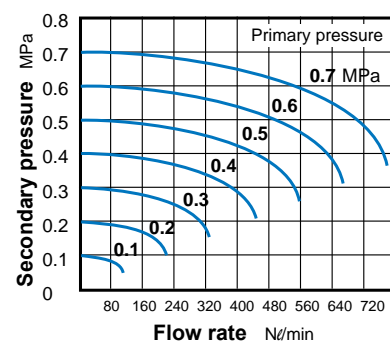


## Flow features

### MVSY-156-4E1/4E2



### MVSY-156M-4E1/4E2



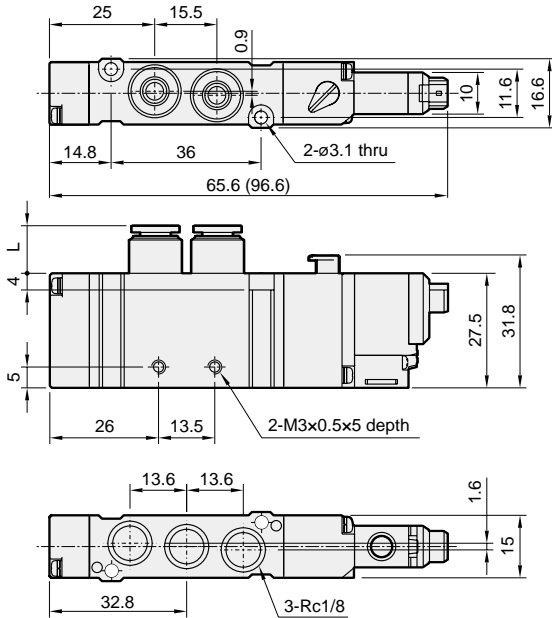
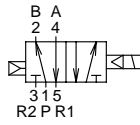
( ): Dimension for LJ plug type.

# MVSY-156 Dimensions

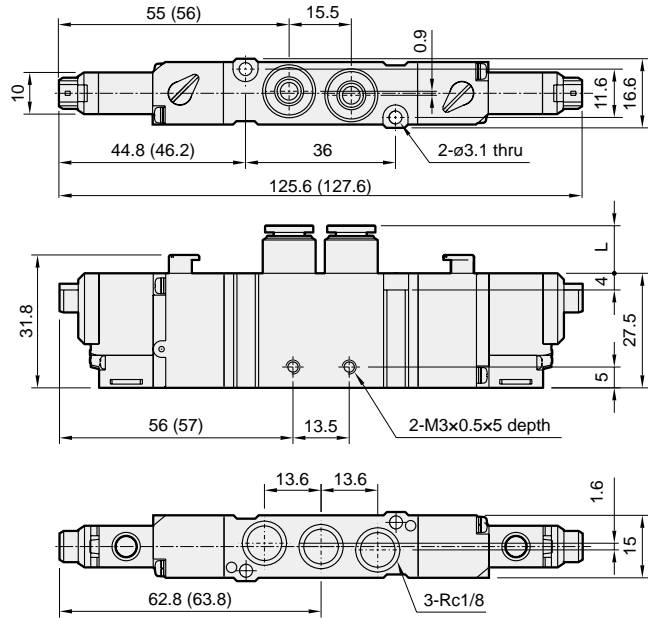
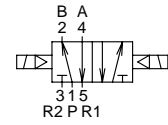
## SOLENOID VALVE



### MVSY-156C\*-4E1



### MVSY-156C\*-4E2

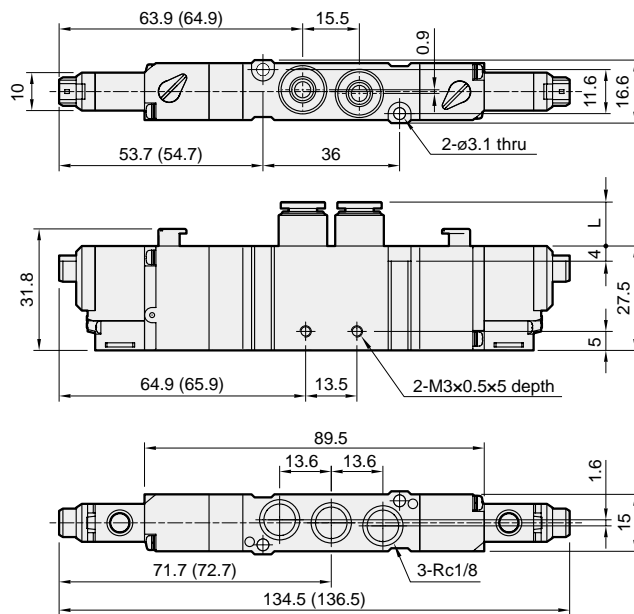
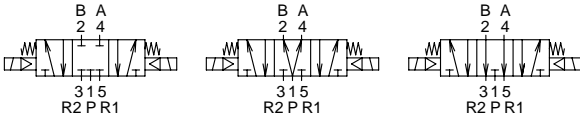


### MVSY-156C\*-4E2C.PR

#### MVSY-156-4E2C

#### MVSY-156-4E2P

#### MVSY-156-4E2R



Code Port size	L
C4	13
C6	14
C8	18.5

( ): Dimension for LJ plug type.

# MVSY-156 Manifold

## SOLENOID VALVE



(4.3) Solenoid Valve

(2) Solenoid Valve

Pilot & Mechanical Valve

Air Unit

Pressure Switch

Compressed Air Dryer

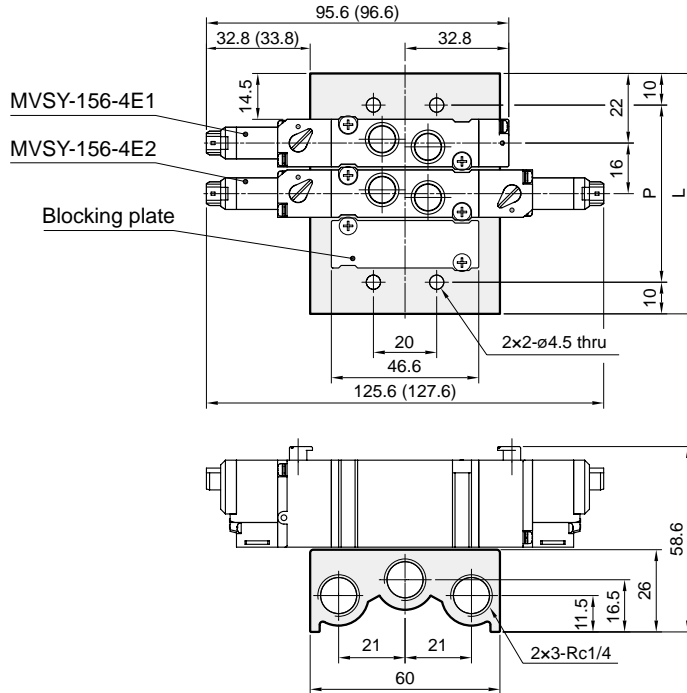
Auxiliary Equipment

PISCO®

PLC Control System

### MVSY-156-5B\*

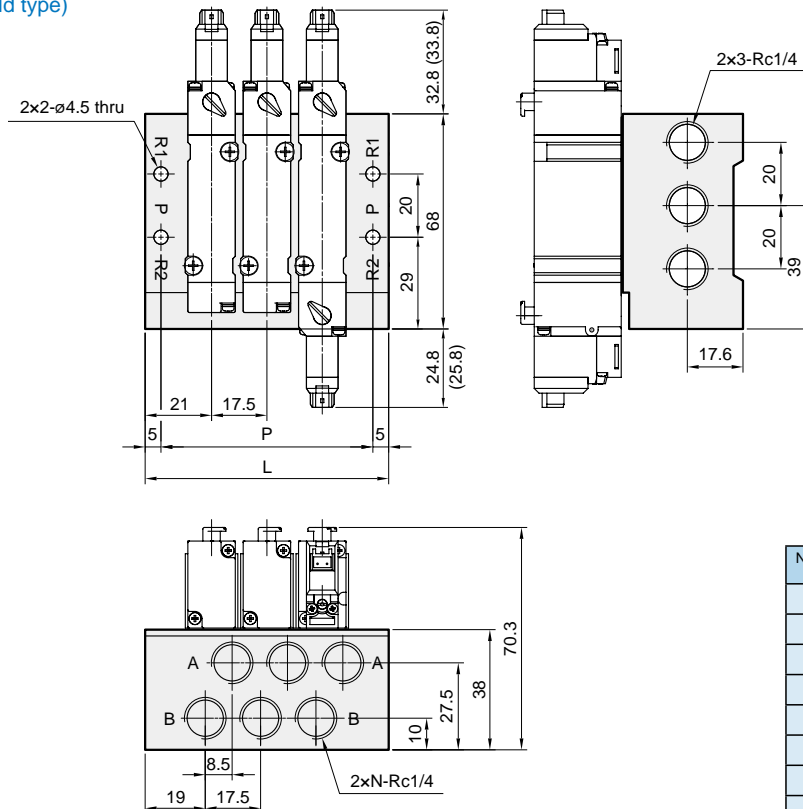
5 port (for body ported type)



No. of stations	P	L
2	40	60
3	56	76
4	72	92
5	88	108
6	104	124
7	120	140
8	136	156
9	152	172
10	168	188

### MVSY-156M-5M\*

5 port (for manifold type)



No. of stations (N)	P	L
2	49.5	59.5
3	67	77
4	84.5	94.5
5	102	112
6	119.5	129.5
7	137	147
8	154.5	164.5
9	172	182
10	189.5	199.5

( ): Dimension for LJ plug type.

# MVSY-156 Mounting bracket & Spacer assembly

SOLENOID VALVE



mindman

## Order example of bracket

MVSY – 156 – 1A

MODEL

MOUNTING BRACKET

1A  
2A

## Order example of spacer assembly

MVSY – 156M – 5BP

MODEL

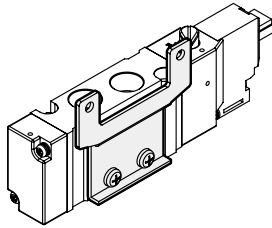
5B: 5 Port (for body ported type)  
5M: 5 Port (for Manifold type)

SPACER  
ASSEMBLY

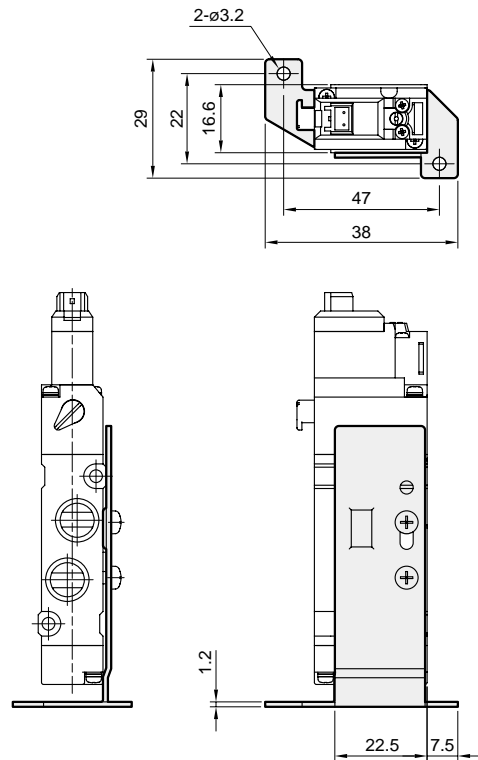
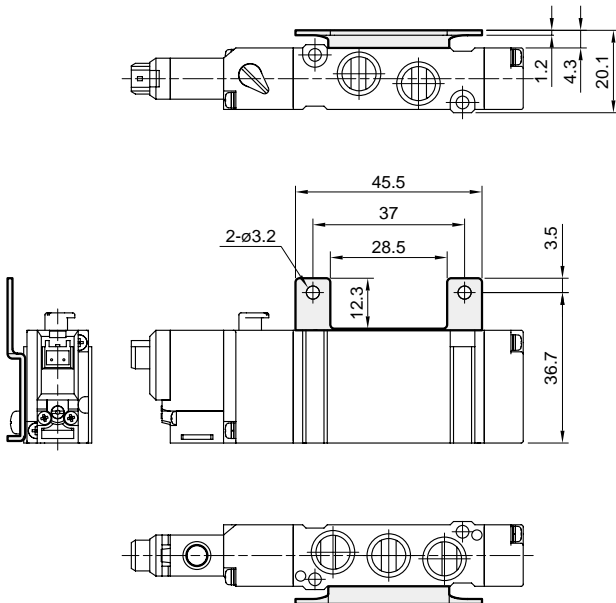
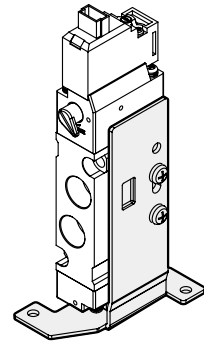
Blank: Body ported type  
M: Manifold type

P: Individual SUP spacer assembly  
R: Individual EXH spacer assembly  
PR: Individual SUP spacer assembly+  
Individual SUP spacer assembly

MVSY-156-1A



MVSY-156-2A





# MVSY-156 Spacer assembly

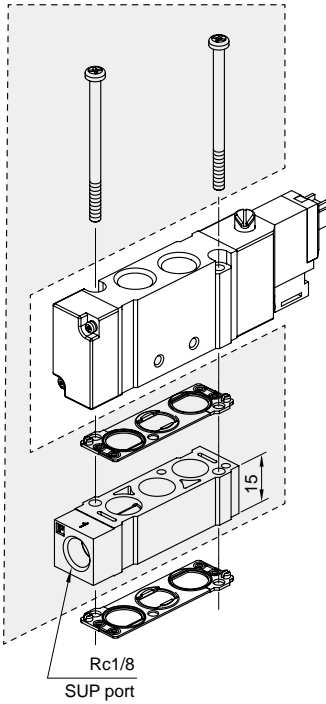
## SOLENOID VALVE



for body ported type

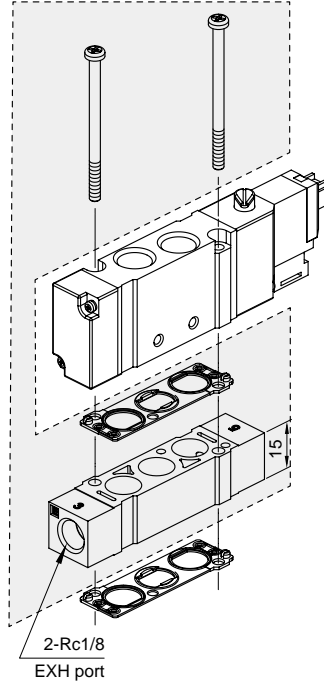
### MVSY-156-5BP

Individual SUP spacer assembly



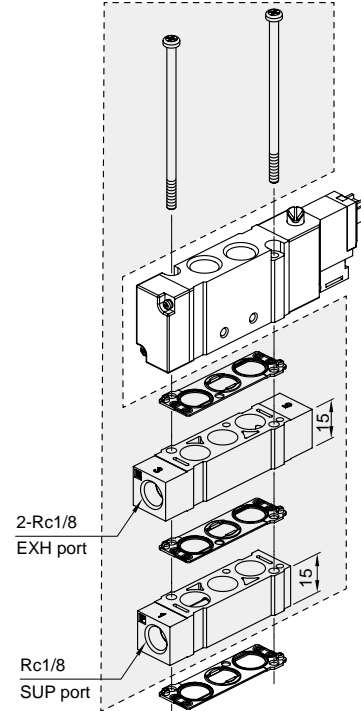
### MVSY-156-5BR

Individual EXH spacer assembly



### MVSY-156-5BPR

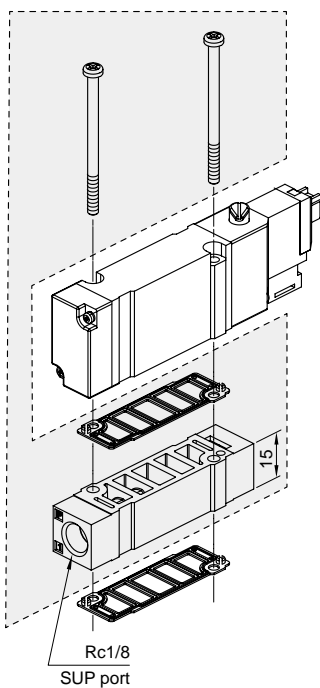
Individual SUP spacer assembly+  
Individual EXH spacer assembly



for manifold type

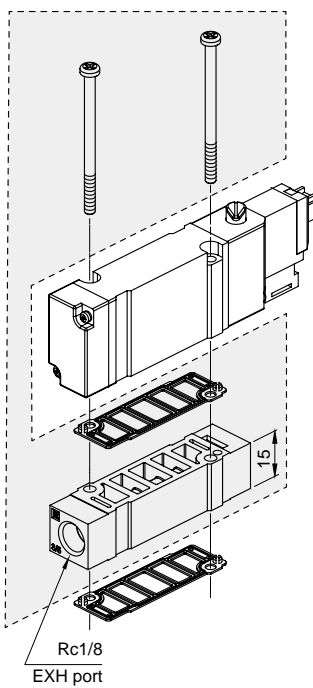
### MVSY-156M-5MP

Individual SUP spacer assembly



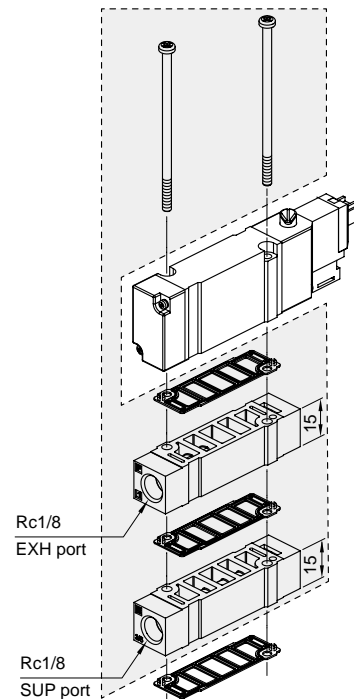
### MVSY-156M-5MR

Individual EXH spacer assembly



### MVSY-156M-5MPR

Individual SUP spacer assembly+  
Individual EXH spacer assembly

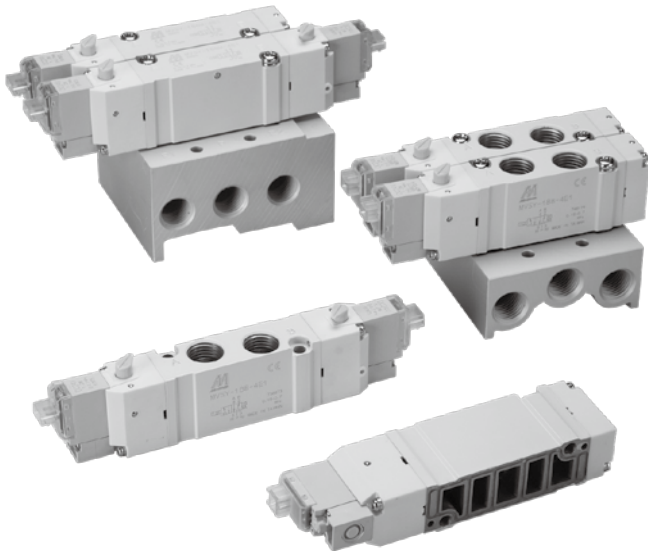


# MVSY-188 series

## SOLENOID VALVE



Mindman

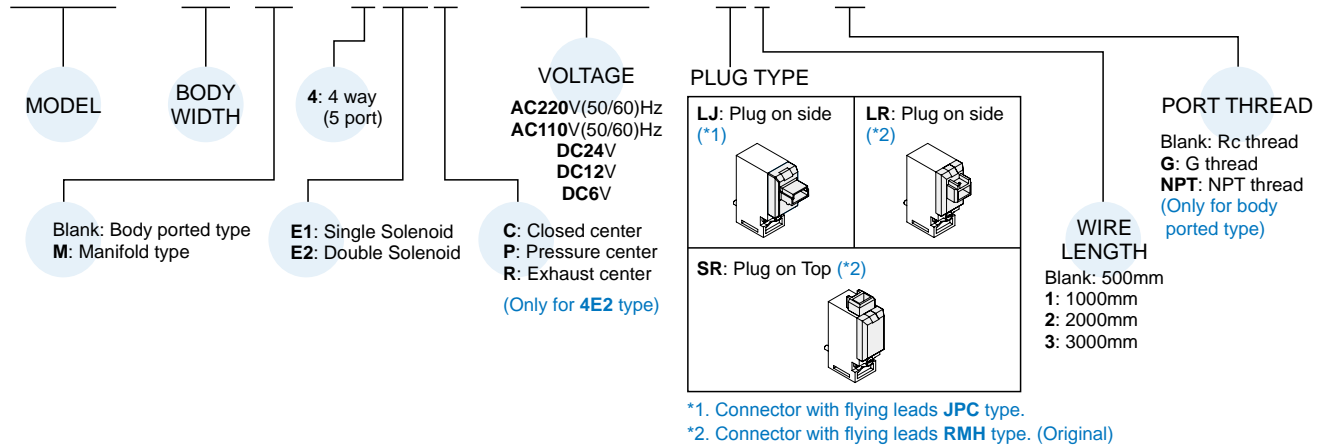


### Specification

Model	4E1	4E2	4E2 C.P.R
Bore No.	8A		
Port size	Rc1/4		
No. of port	5		
No. of position	2	3	
Medium	Air		
Operating perssure range	0.15~0.7 MPa	0.2~0.7 MPa	
Proof pressure	1 MPa		
Effective orifice	Body ported	15 mm <sup>2</sup>	16.3/27/12.4 mm <sup>2</sup>
	Manifold	13 mm <sup>2</sup>	13.5/18.4/11 mm <sup>2</sup>
Reponse time	23 ms		50 ms
Ambient temperature	+5~+50°C		
Voltage	AC110V, 220V (50/60)Hz, DC24/12/6V		
Power consumption	AC=1.6/2.5VA, DC=0.55W (LED indicator)		
Available voltage range	±10%		
Insulation calss	B class		
Weight	84 g	106 g	116 g

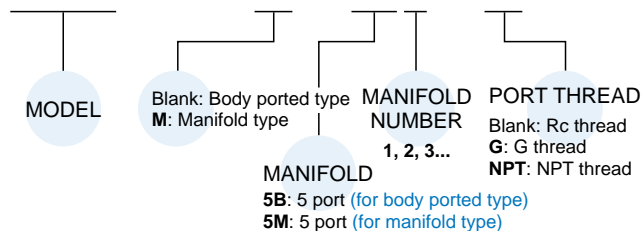
### Order example of valve

**MVSY – 188M – 4E2C – AC110 – LJ1 – G**



### Order example of manifold

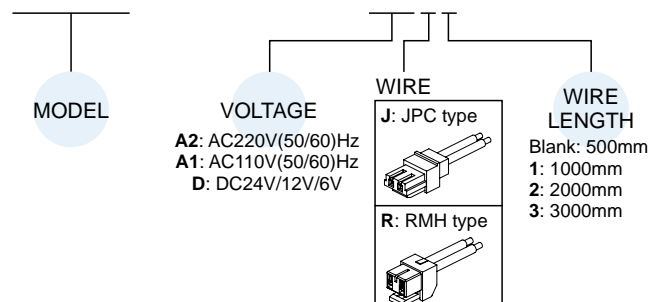
**MVSY – 188M – 5B3 – G**



### Order example of wire

\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**



# MVSY-188 Dimensions

## SOLENOID VALVE



(4.3) Solenoid Valve

(2) Solenoid Valve

Pilot & Mechanical Valve

Air Unit

Pressure Switch

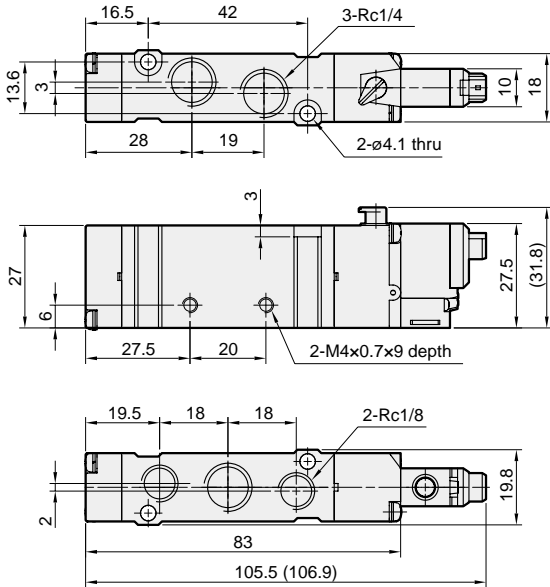
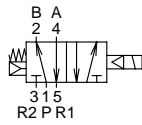
Compressed Air Dryer

Auxiliary Equipment

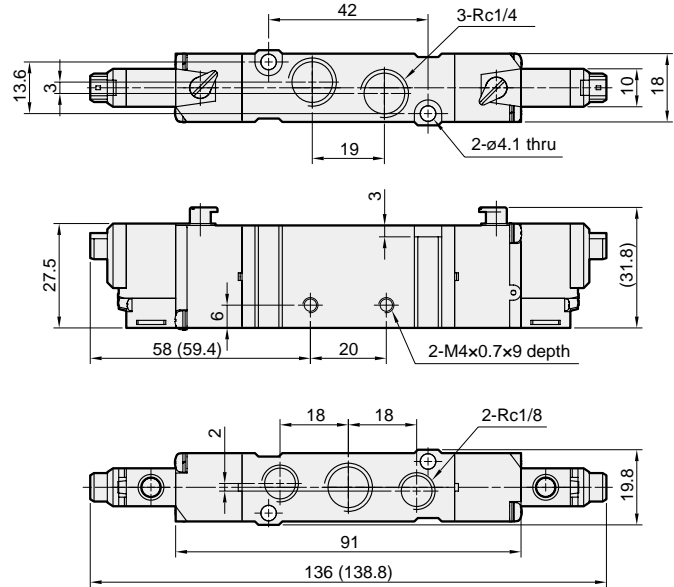
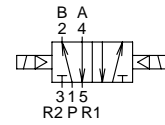
PISCO

PLC Control System

### MVSY-188-4E1



### MVSY-188-4E2

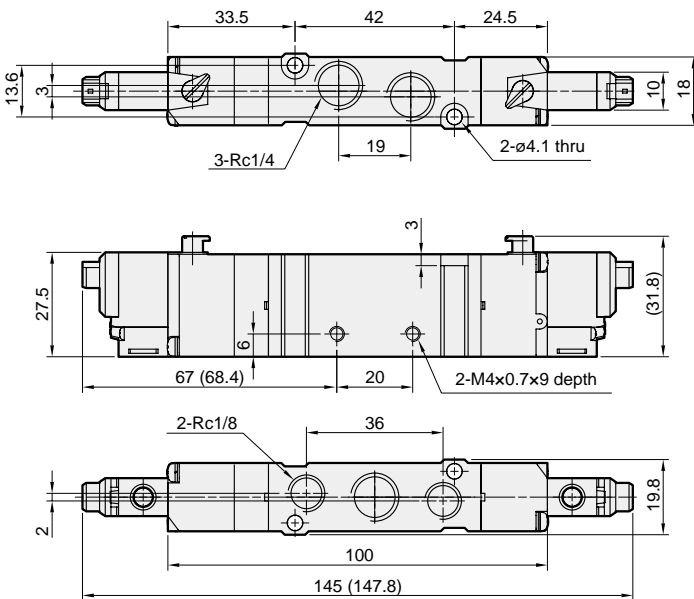
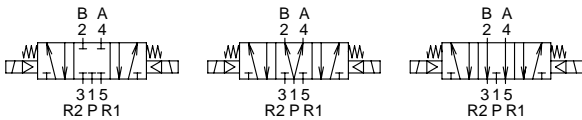


### MVSY-188-4E2C.PR

#### MVSY-188-4E2C

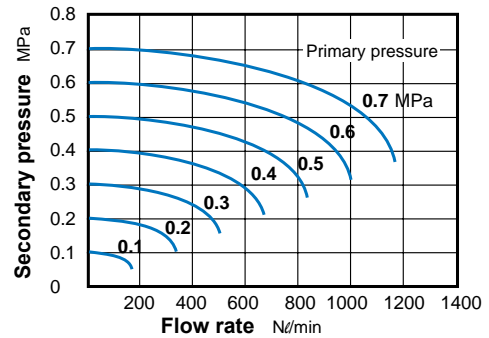
#### MVSY-188-4E2P

#### MVSY-188-4E2R

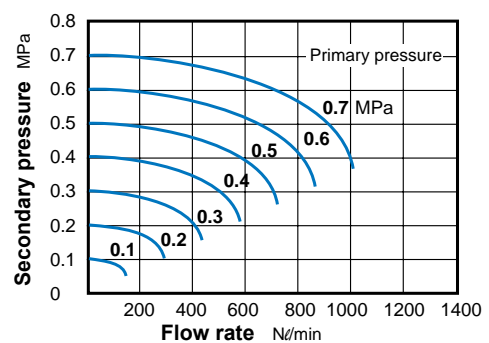


## Flow features

### MVSY-188-4E1/4E2



### MVSY-188M-4E1/4E2



( ): Dimension for LJ plug type.

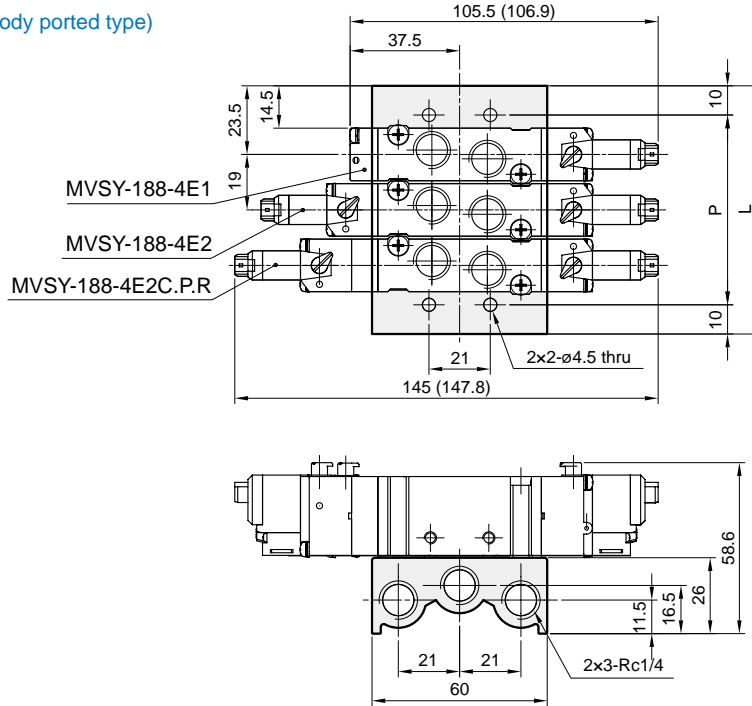
# MVSY-188 Manifold

## SOLENOID VALVE



### MVSY-188-5B\*

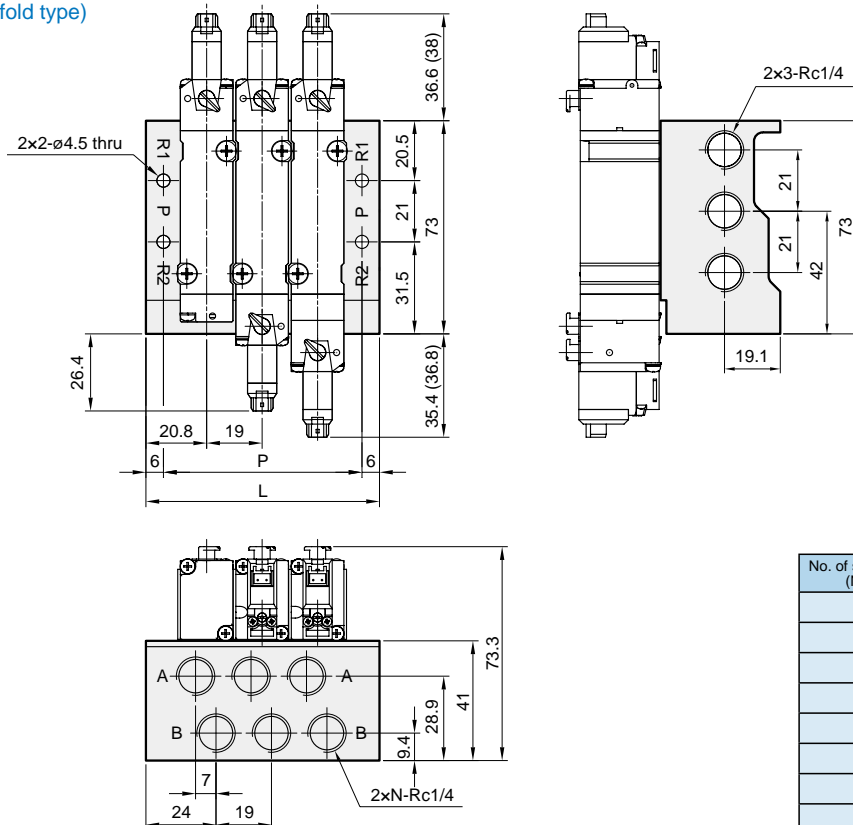
5 port (for body ported type)



No. of stations	P	L
2	46	66
3	65	85
4	84	104
5	103	123
6	122	142
7	141	161
8	160	180
9	179	199
10	198	218

### MVSY-188M-5M\*

5 port (for manifold type)



No. of stations (N)	P	L
2	49	61
3	68	80
4	87	99
5	106	118
6	125	137
7	144	156
8	163	175
9	182	194
10	201	213

( ) : Dimension for LJ plug type.

# MVSY-188 Mounting bracket & Spacer assembly

SOLENOID VALVE



## Order example of bracket

MVSY – 188 – 1A

MODEL

MOUNTING BRACKET

1A  
2A

## Order example of spacer assembly

MVSY – 188M – 5BP

MODEL

5B: 5 Port (for body ported type)  
5M: 5 Port (for Manifold type)

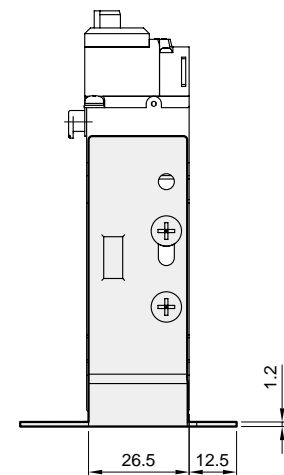
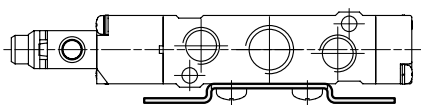
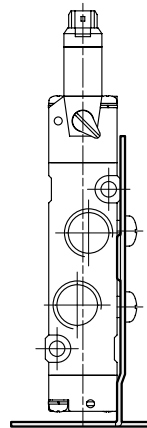
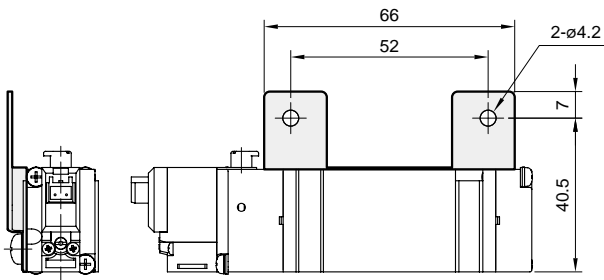
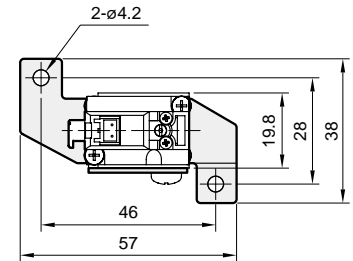
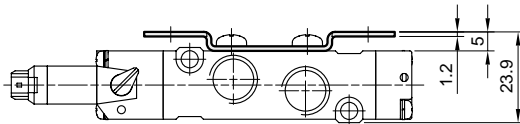
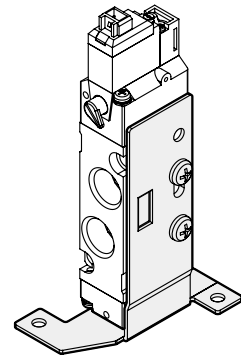
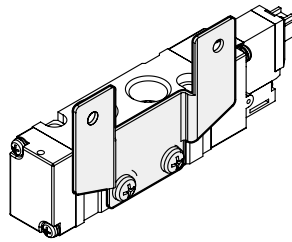
SPACER  
ASSEMBLY

Blank: Body ported type  
M: Manifold type

P: Individual SUP spacer assembly  
R: Individual EXH spacer assembly  
PR: Individual SUP spacer assembly+  
Individual SUP spacer assembly

MVSY-188-1A

MVSY-188-2A



# MVSY-188 Spacer assembly

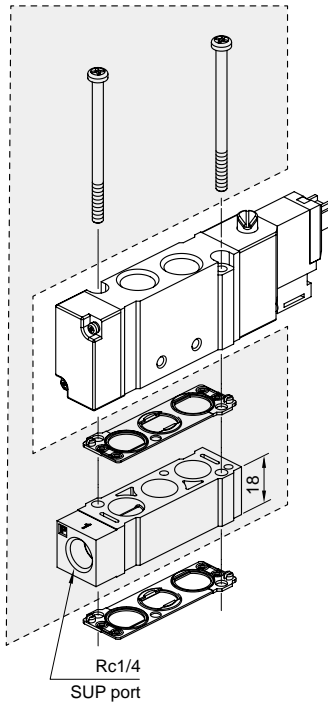
SOLENOID VALVE



for body ported type

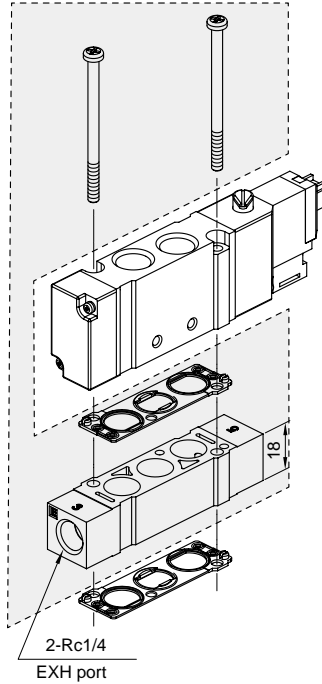
**MVSY-188-5BP**

Individual SUP spacer assembly



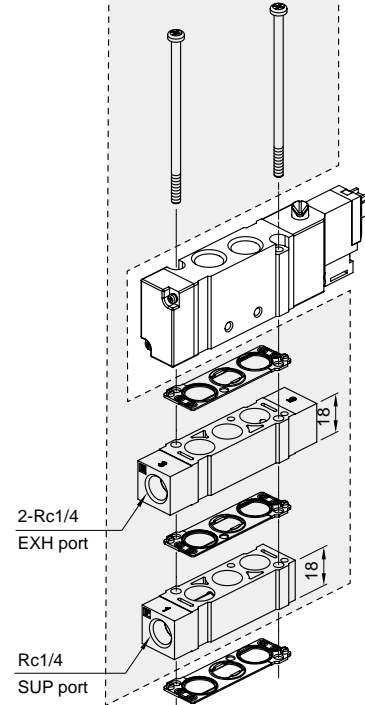
**MVSY-188-5BR**

Individual EXH spacer assembly



**MVSY-188-5BPR**

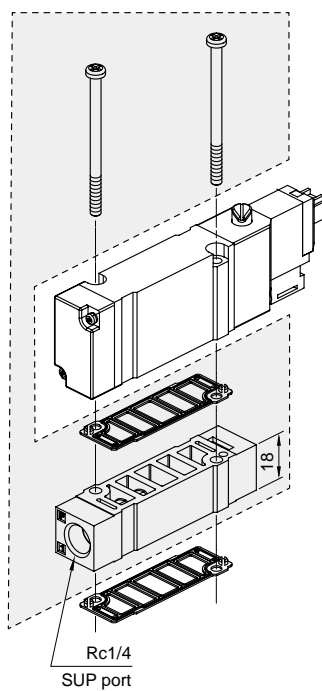
Individual SUP spacer assembly+  
Individual EXH spacer assembly



for manifold type

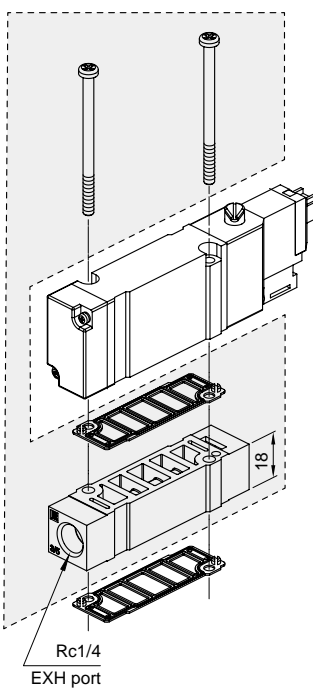
**MVSY-188M-5MP**

Individual SUP spacer assembly



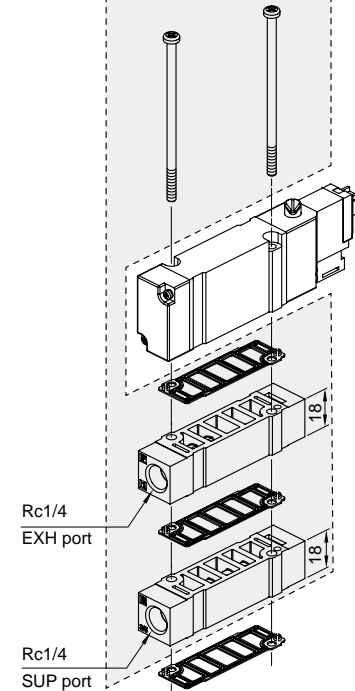
**MVSY-188M-5MR**

Individual EXH spacer assembly



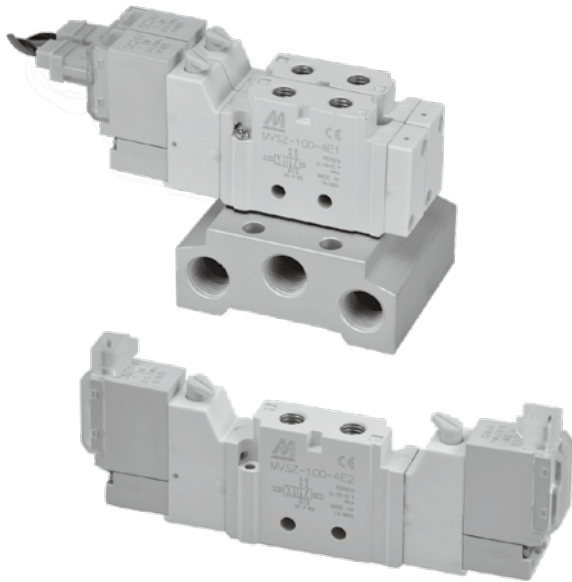
**MVSY-188M-5MPR**

Individual SUP spacer assembly+  
Individual EXH spacer assembly



# MVSZ-100 series

## SOLENOID VALVE



### Specification

Model	4E1	4E2
Bore No.	M5	
Port size	M5x0.8	
No. of port	5	
No. of position	2	
Medium	Air	
Operating pressure range	0.15~0.7 MPa	
Proof pressure	1 MPa	
Effective orifice	4.7 mm <sup>2</sup> (0.26Cv)	
Response time	17 ms	
Ambient temperature	+5~+50°C	
Voltage	AC110V, 220V (50/60)Hz, DC24/12/6V	
Power consumption	AC=1.6/2.5VA, DC=0.55W (LED indicator)	
Available voltage range	±10%	
Insulation class	B class	
Weight	40 g	53 g

### Order example of valve

**MVSZ – 100 – 4E1 – AC110 – LJ1**

MODEL

BODY WIDTH

VOLTAGE

AC220V(50/60)Hz  
AC110V(50/60)Hz  
DC24V  
DC12V  
DC6V

4: 4 way (5 port)

E1: Single Solenoid  
E2: Double Solenoid

PLUG TYPE

LJ: Plug on side (\*1)

LR: Plug on side (\*2)

SR: Plug on Top (\*2)

WIRE LENGTH

Blank: 500mm  
1: 1000mm  
2: 2000mm  
3: 3000mm

\*1. Connector with flying leads JPC type.

\*2. Connector with flying leads RMH type. (Original)

### Order example of manifold

**MVSZ – 100 – 5B3 – G**

MODEL

MANIFOLD

5B: 5 port (for body ported type)  
5M: 5 port (for manifold type)

MANIFOLD NUMBER  
1, 2, 3...

PORT THREAD

Blank: Rc thread  
G: G thread  
NPT: NPT thread

### Order example of wire

\* Use the same wire with MVDY.

**MVDY – 100 – WA2J2**

MODEL

VOLTAGE

A2: AC220V(50/60)Hz  
A1: AC110V(50/60)Hz  
D: DC24V/12V/6V

WIRE

J: JPC type

R: RMH type

WIRE LENGTH

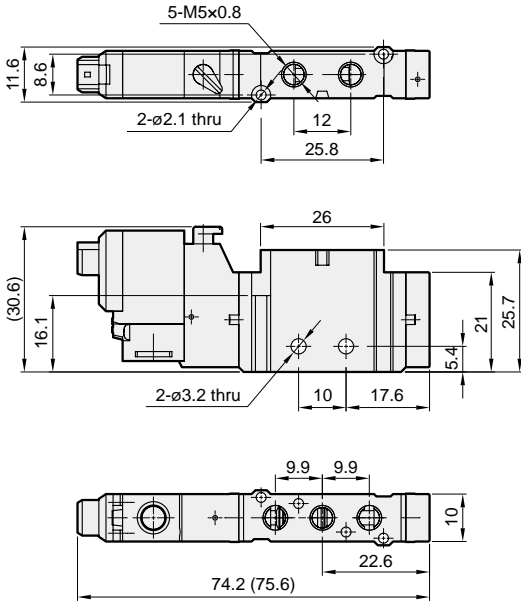
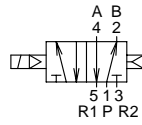
Blank: 500mm  
1: 1000mm  
2: 2000mm  
3: 3000mm

# MVSZ-100 Dimensions & Manifold

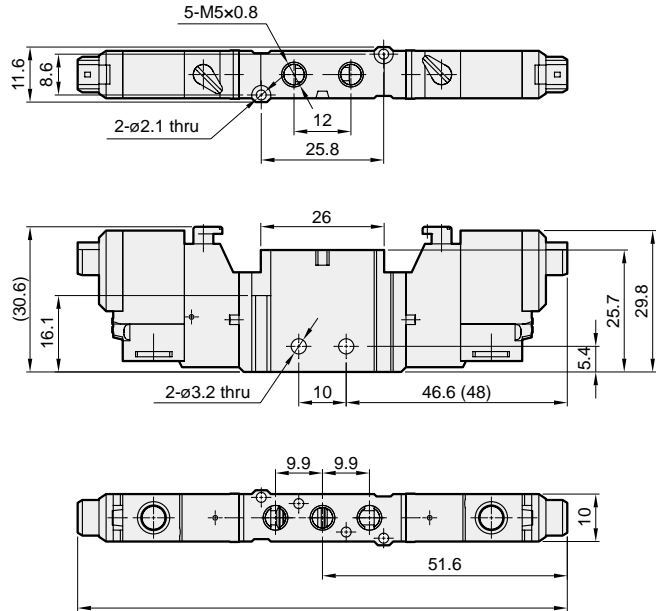
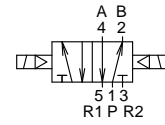
## SOLENOID VALVE



### MVSZ-100-4E1



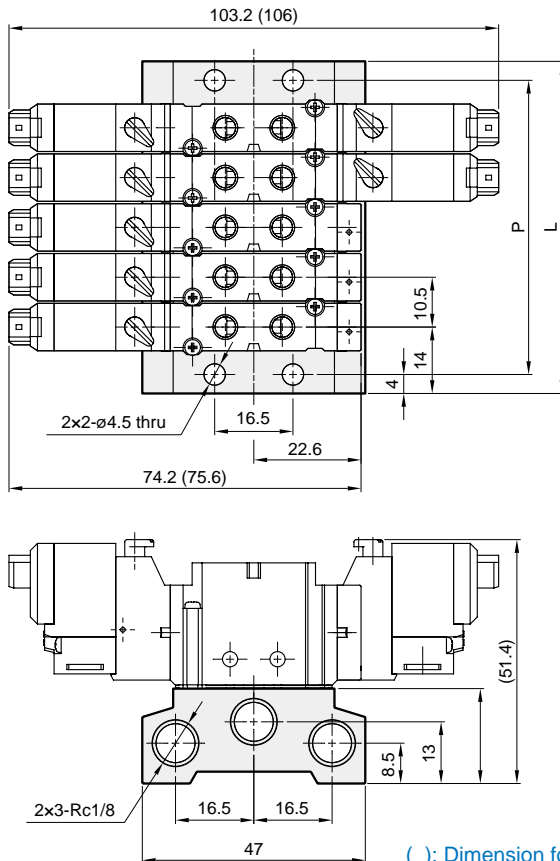
### MVSZ-100-4E2



## Manifold of solenoid valve

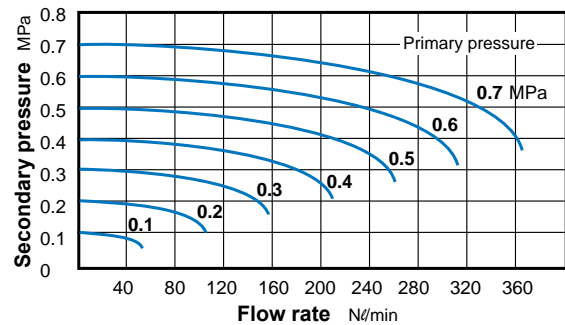
### MVSZ-100-5B\*

5 port (for body ported type)



No. of stations	P	L
2	30.5	38.5
3	41	49
4	51.5	59.5
5	62	70
6	72.5	80.5
7	83	91
8	93.5	101.5
9	104	112
10	114.5	122.5

## Flow features

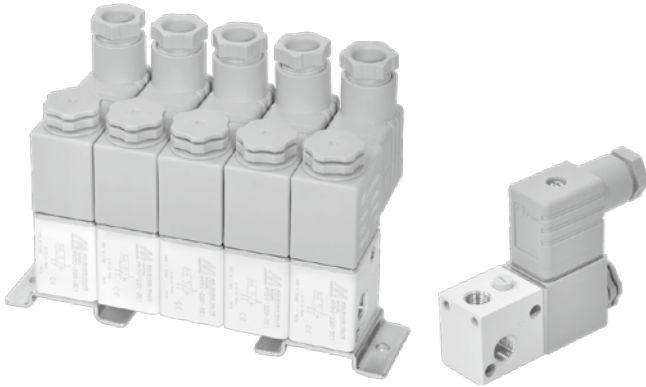


( ): Dimension for LJ plug type.



# MVDC-220 series

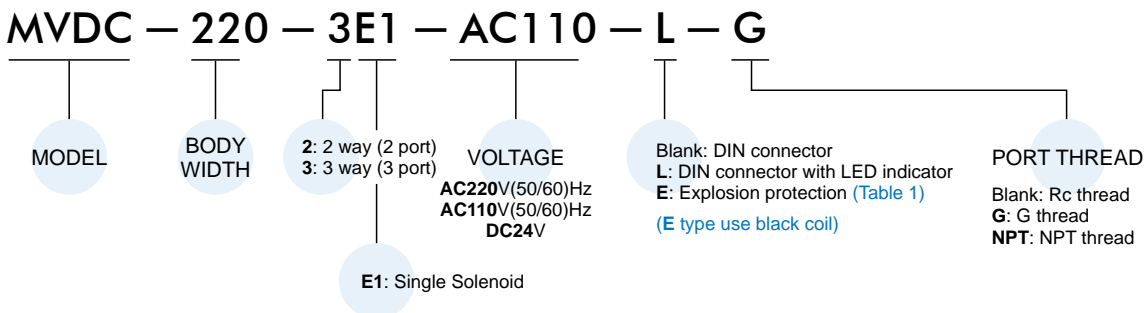
SOLENOID VALVE (DIRECT OPERATED TYPE)



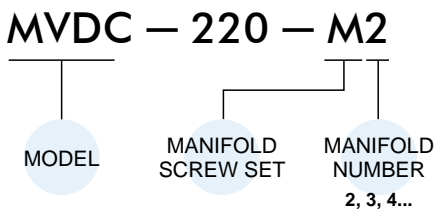
## Specification

Model	2E1	3E1
Bore No.	6A	
Port size	Rc1/8	
No. of port	2	3
No. of position	2	
Medium	Air	
Operating pressure range	0.01~0.7 MPa	
Proof pressure	1 MPa	
Effective orifice	0.8 mm <sup>2</sup>	
Response time	20 ms	
Ambient temperature	-5~+50°C (No freezing)	
Voltage	AC110V, 220V (50/60)Hz, DC24V	
Power consumption	AC=6/4.9VA, DC=2W	
Available voltage range	±10%	
Insulation class	F class	
Weight	155 g	

### Order example of valve



### Order example of manifold screw set



### Order example of bracket

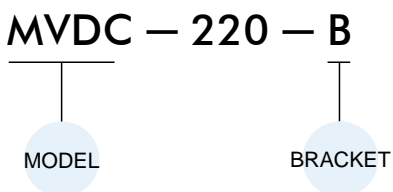
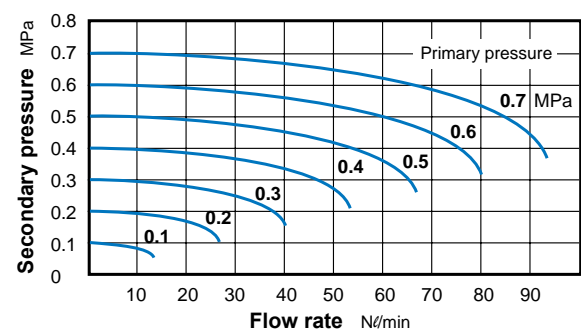


Table 1  
Property for explosion-proof type

Anti-explosion class	EEx m II T4
Voltage	AC110V, 220V.(50/60)Hz, DC24V.
Power consumption	AC=4.4VA DC=5W
Available voltage range	±10%
Insulation class	F class

### Flow features

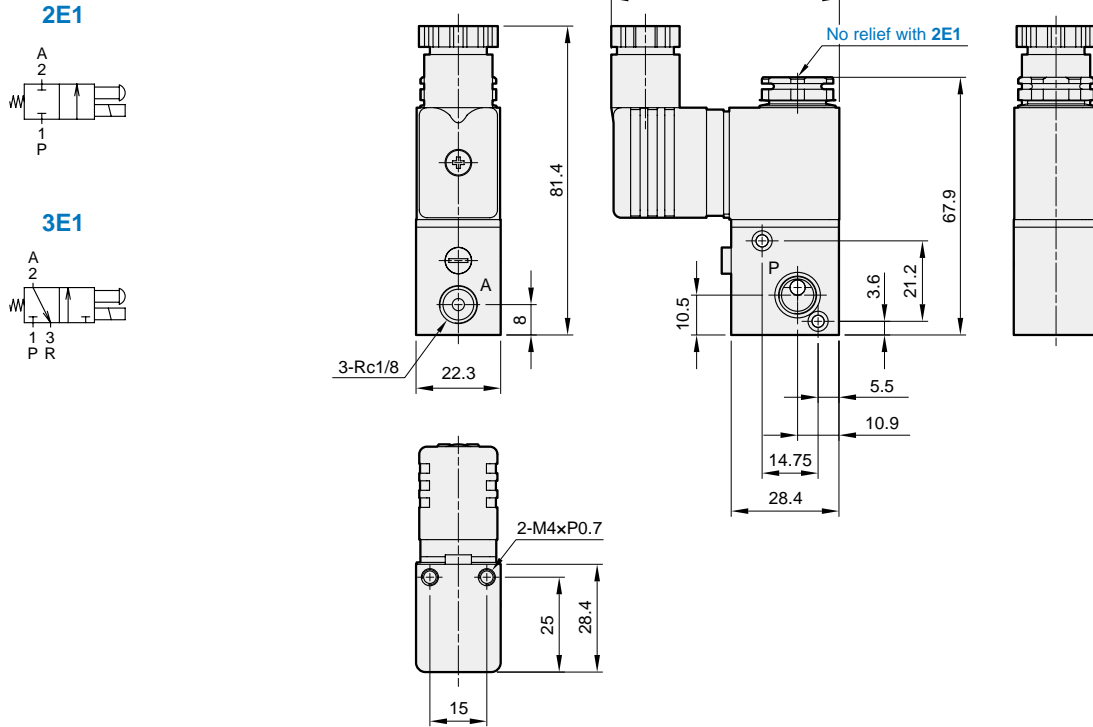


# MVDC-220 Dimensions & Mounting accessories

SOLENOID VALVE (DIRECT OPERATED TYPE)



## MVDC-220



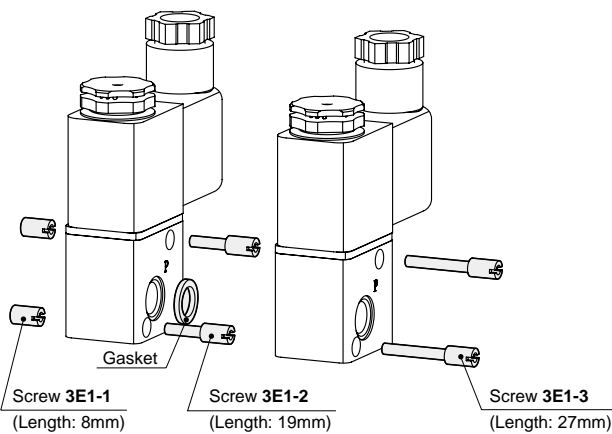
## Mounting accessories

### MVDC-220-M\*

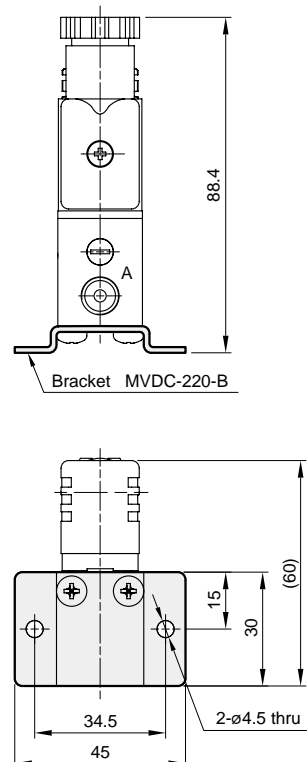
Manifold screw set

### MVDC-220-B

Bracket

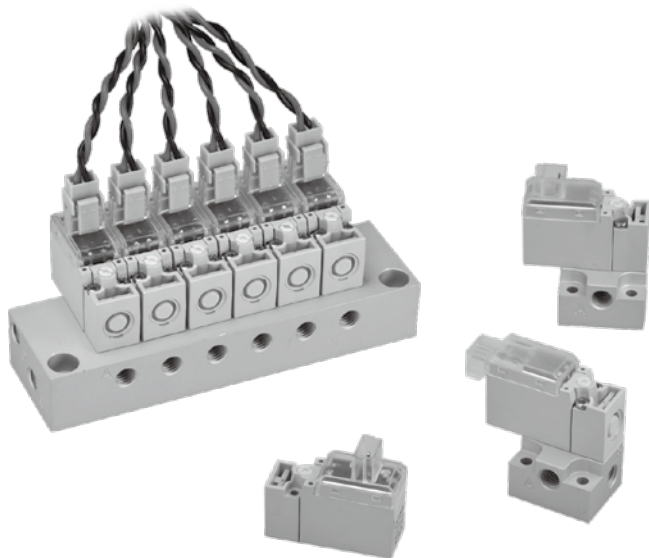


1. Screw 3E1-1 & screw 3E1-2: for the first station.
2. Gasket & Screw 3E1-3: for the second and other station.



# MVDY-100 series

SOLENOID VALVE (DIRECT OPERATED TYPE)



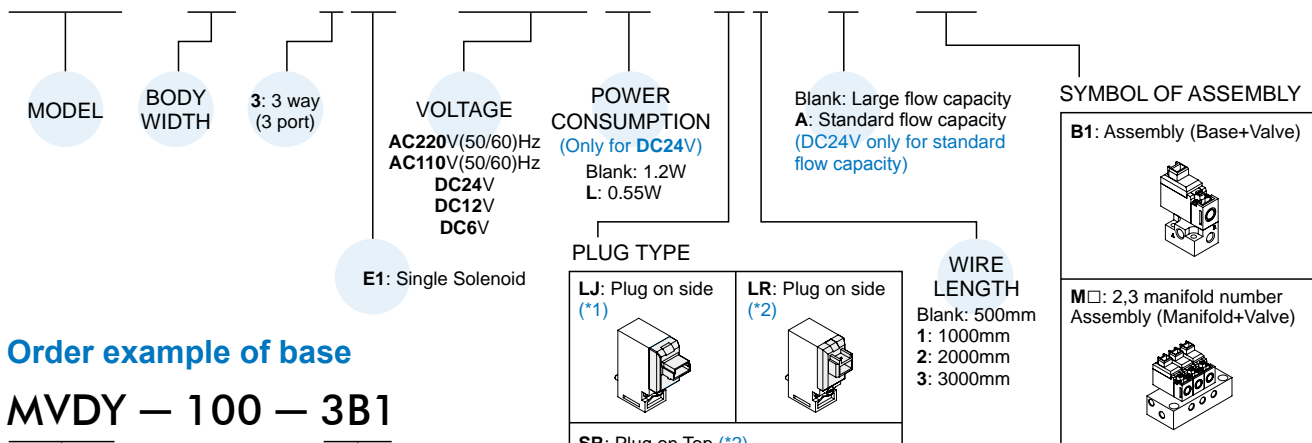
## Specification

Model	3E1	3E1-*-A	3E1-DC24L-A
No. of port	3		
No. of position	2		
Medium	Air		
Operating pressure range	0~0.7 MPa	0~0.9 MPa	0~0.85 MPa
Proof pressure	1 MPa		
Effective orifice	P→A1	0.28 mm <sup>2</sup>	0.09 mm <sup>2</sup>
	P→A2	0.23 mm <sup>2</sup>	0.1 mm <sup>2</sup>
Response time	DC: 4 ms, AC: 20ms		
Ambient temperature	+5~+50°C		
Voltage	AC110V, 220V (50/60)Hz, DC24/12/6V		DC24V
Power consumption	AC=1.6/2.5VA, DC=1.2W		0.55W
Available voltage range	±10%		
Insulation class	B class		
Weight	12 g		

\* Pressure is 0.5 MPa, at rated voltage.  
\* LED indicator as standard.

## Order example of valve

MVDY - 100 - 3E1 - AC110 □ - LJ1 - A - M3



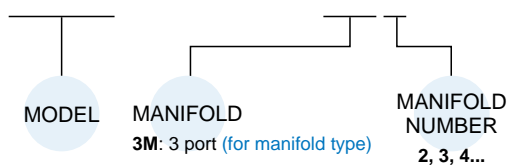
## Order example of base

MVDY - 100 - 3B1



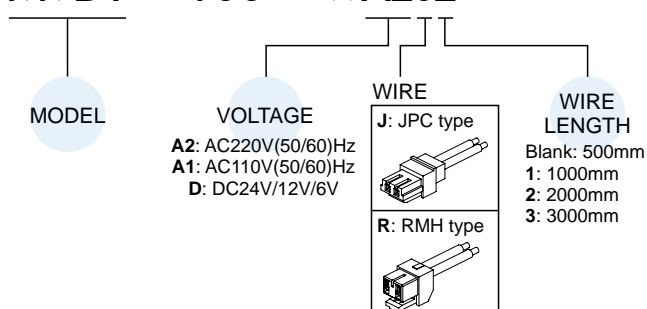
## Order example of manifold

MVDY - 100 - 3M2



## Order example of wire

MVDY - 100 - WA2J2

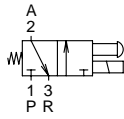


# MVDY-100 Dimensions & Manifold

SOLENOID VALVE (DIRECT OPERATED TYPE)

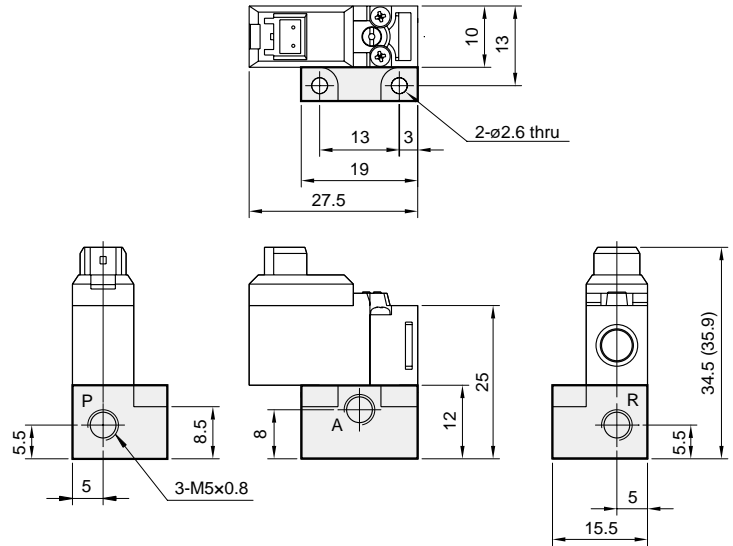
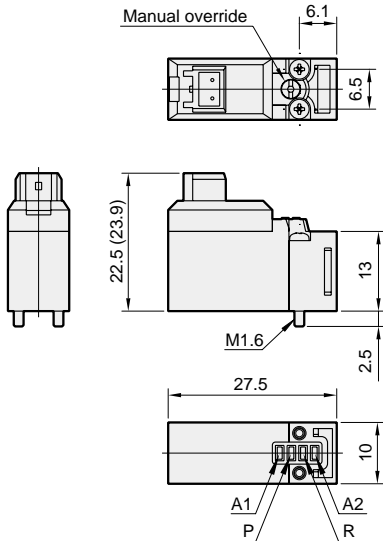


## MVDY-100-3E1



## MVDY-100-3B1

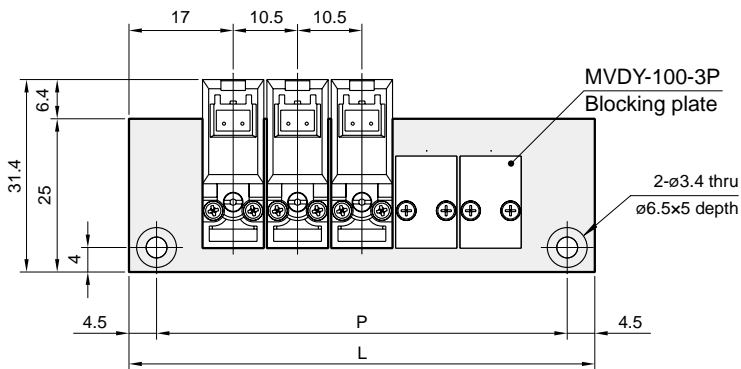
3 port base



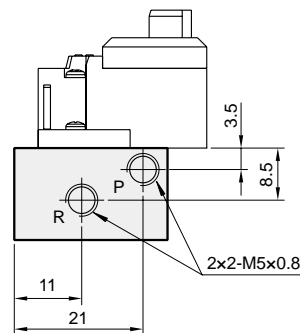
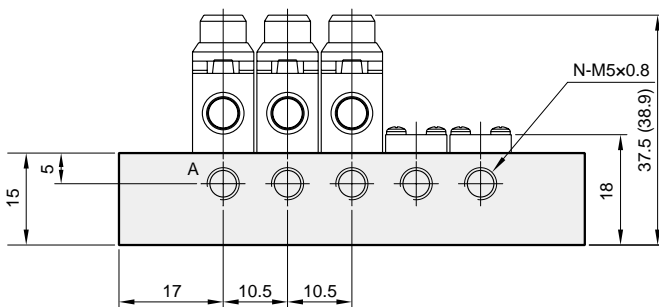
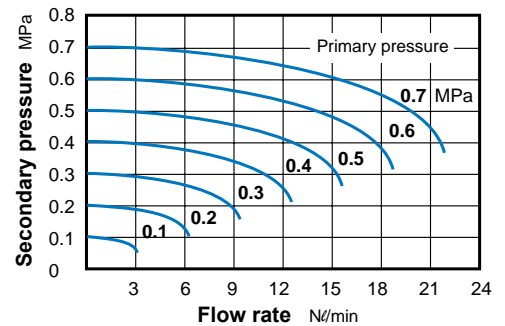
## Manifold of solenoid valve

### MVDY-100-3M\*

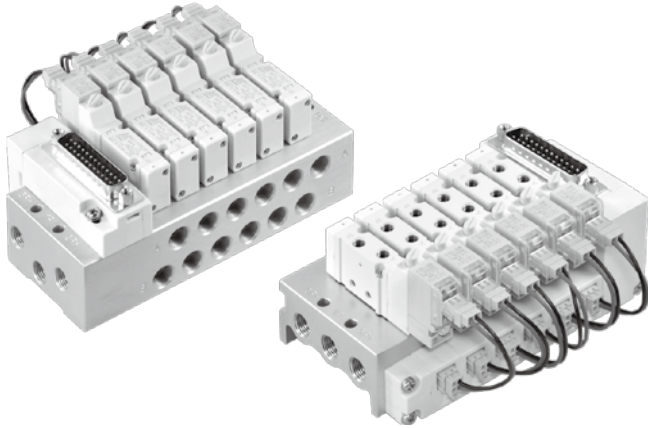
3 port (for manifold type)



## Flow features



No. of stations (N)	P	L
2	35.5	44.5
3	46	55
4	56.5	65.5
5	67	76
6	77.5	86.5
7	88	97
8	98.5	107.5
9	109	118
10	119.5	128.5

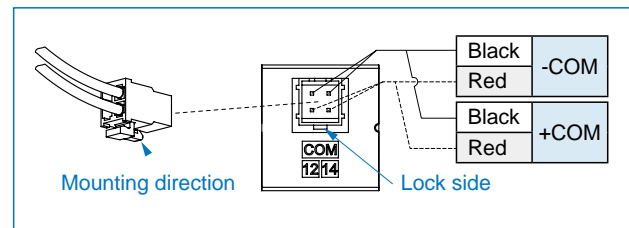


### Specification

- 5-Pin D-sub connector (cable length 3m).
- Simple electric wire system.

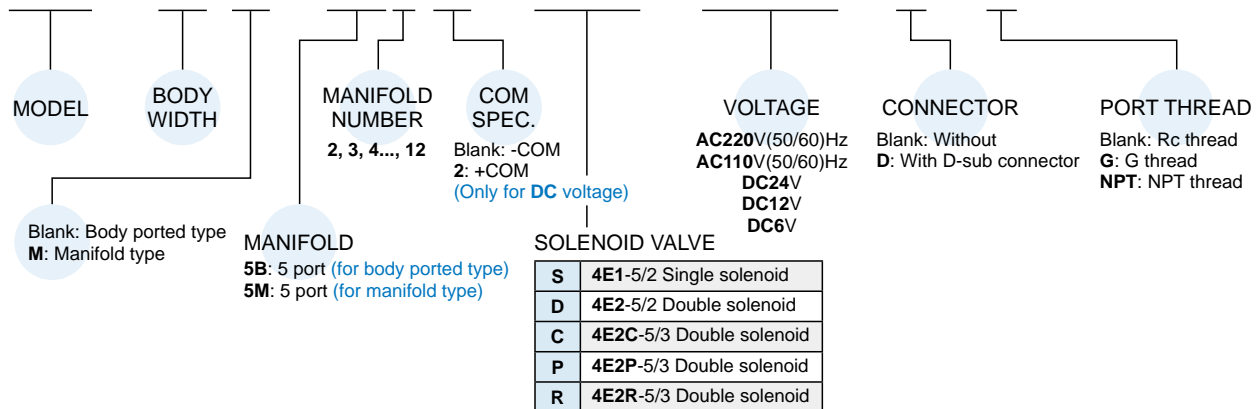
### Remark

- Maximum number of stations  
4E1: 12 stations  
4E2 & 4EC.P.R: 11 stations
- For MVSY-100 series solenoid valve only.



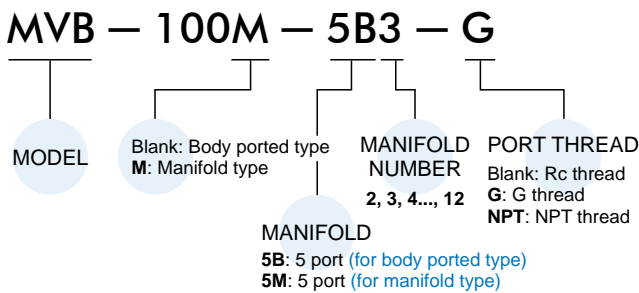
### Order example (Multi connector system)

MVB – 100M – 5M4 □ – SSSDC – AC110 – D – G



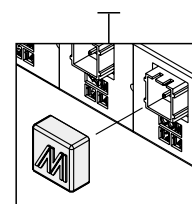
\* Valves are assembled from the D-sub side.

### Order example of circuit board and manifold



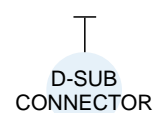
### Order example of protective plate

MVB – 100 – P



### Order example of connector

MVB – 100 – D



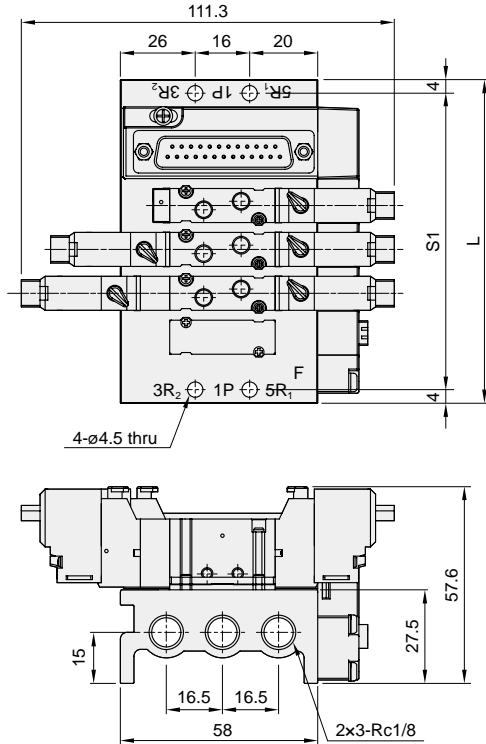
# MVB-100 Dimensions

## MULTI CONNECTOR SYSTEM



### MVB-100-5B\*

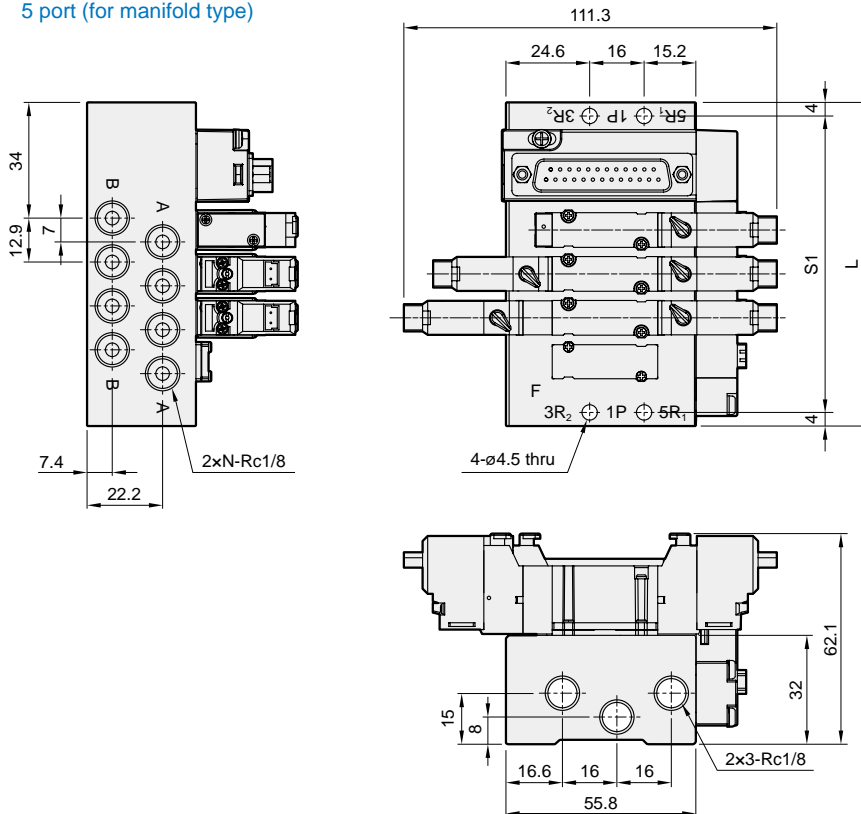
5 port (for body ported type)



No. of stations	L	S1
2	79.5	69.5
3	97	87
4	114.5	104.5
5	132	122
6	149.5	139.5
7	167	157
8	184.5	174.5
9	202	192
10	219.5	209.5
11	237	227
12	254.5	244.5

### MVB-100M-5M\*

5 port (for manifold type)



No. of stations (N)	L	S1
2	69.3	61.3
3	82.2	74.2
4	95.1	87.1
5	108	100
6	120.9	112.9
7	133.8	125.8
8	146.7	138.7
9	159.6	151.6
10	172.5	164.5
11	185.4	177.4
12	198.3	190.3

# MVB-100/156 Order example

## MULTI CONNECTOR SYSTEM



### Order example of wire

MVB — 100 —  — WA2E1

MODEL

COM SPEC.

Blank: -COM  
2: +COM  
(Only for DC voltage)

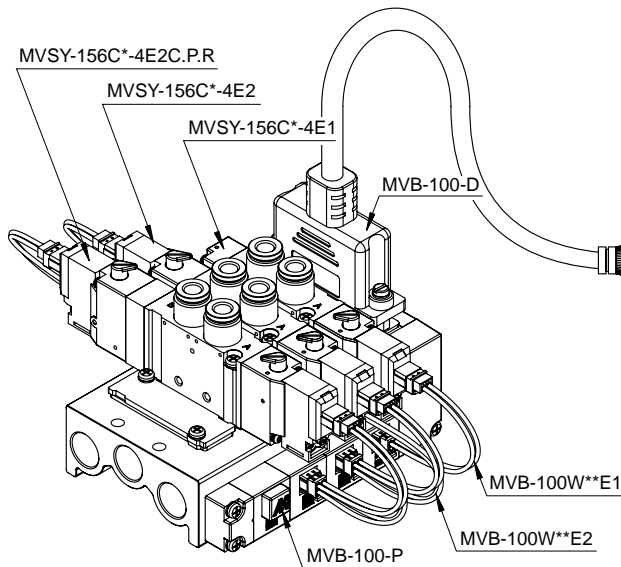
VOLTAGE

A2: AC220V(50/60)Hz  
A1: AC110V(50/60)Hz  
D: DC24V/12V/6V

WIRE TYPE

E1: for 4E1 valves  
E2: for 4E2 valves

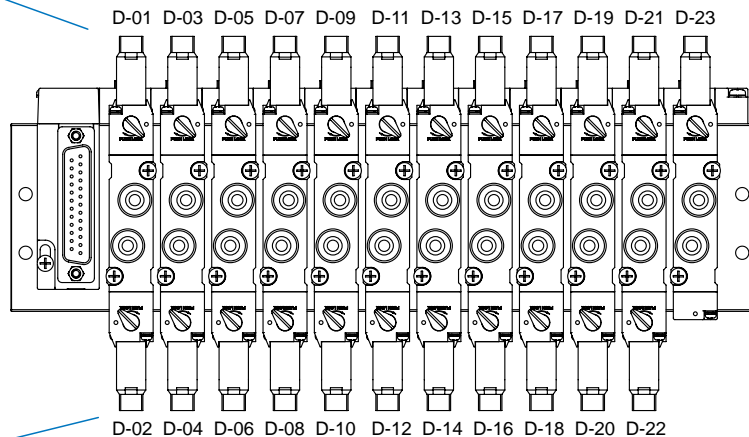
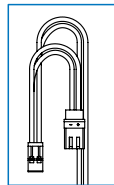
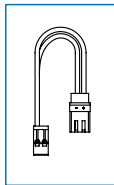
### 25 PIN



Wire color	Pin No.	Coil No.
Brown	1	D-01
Purple / black	14	D-02
Brown / black	2	D-03
Grey	15	D-04
Red	3	D-05
Grey / black	16	D-06
Red / black	4	D-07
White	17	D-08
Orange	5	D-09
White / black	18	D-10
Orange / black	6	D-11
Pink	19	D-12
Yellow	7	D-13
Pink / black	20	D-14
Yellow / black	8	D-15
Light purple	21	D-16
Green	9	D-17
Light purple / black	22	D-18
Green / black	10	D-19
Light blue	23	D-20
Blue	11	D-21
Light blue / black	24	D-22
Blue / black	12	D-23
Purple	13	COM
Light green	25	COM

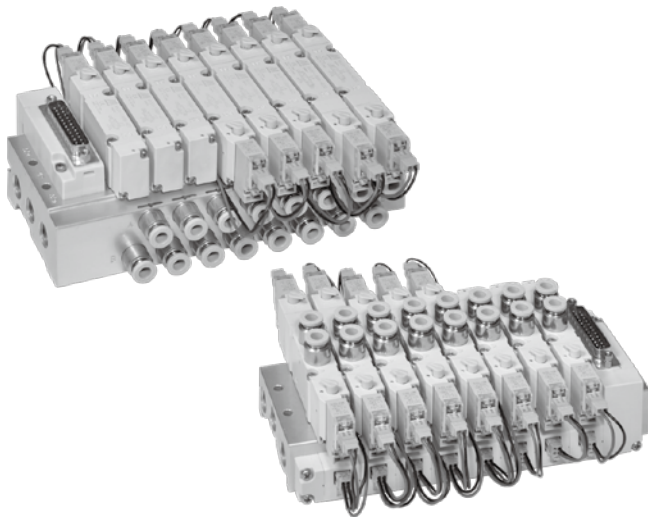
MVB-100-W\*\*E1

MVB-100-W\*\*E2



# MVB-156 series

## MULTI CONNECTOR SYSTEM

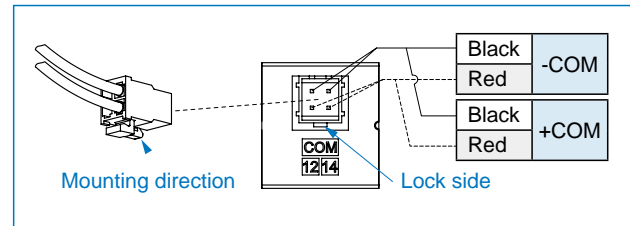


### Specification

- 5-Pin D-sub connector (cable length 3m).
- Simple electric wire system.

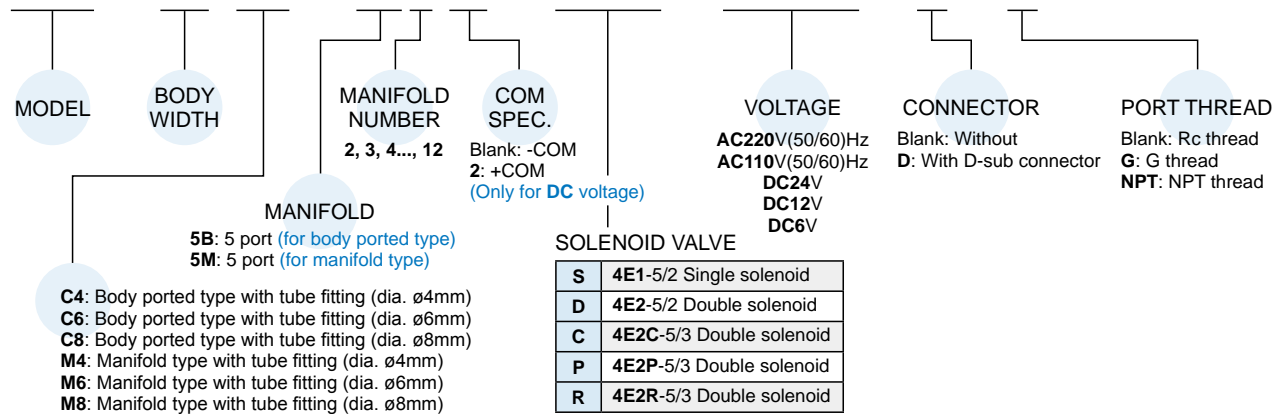
### Remark

- Maximum number of stations  
4E1: 12 stations  
4E2 & 4EC.P.R: 11 stations
- For MVSY-100 series solenoid valve only.
- Installation of wire to PCB.



### Order example (Multi connector system)

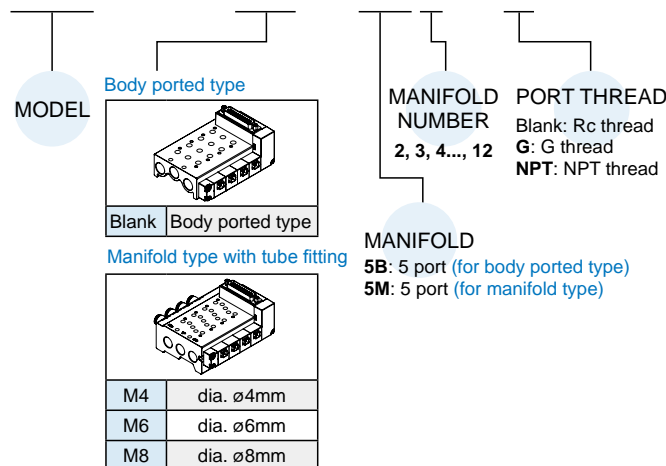
MVB — 156M4 — 5B4 □ — SSSDC — AC110 — D — G



\* Valves are assembled from the D-sub side.

### Order example of circuit board and manifold

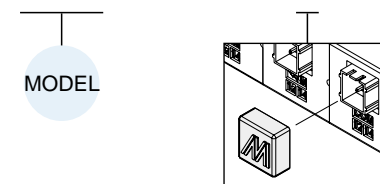
MVB — 156M4 — 5M3 — G



### Order example of protective plate

\* Use the same accessories with MVB-100.

MVB — 100 — P



### Order example of connector

MVB — 100 — D



### Order example of wire

\* Use the same wire with MVB-100, please refer to page 1-103.



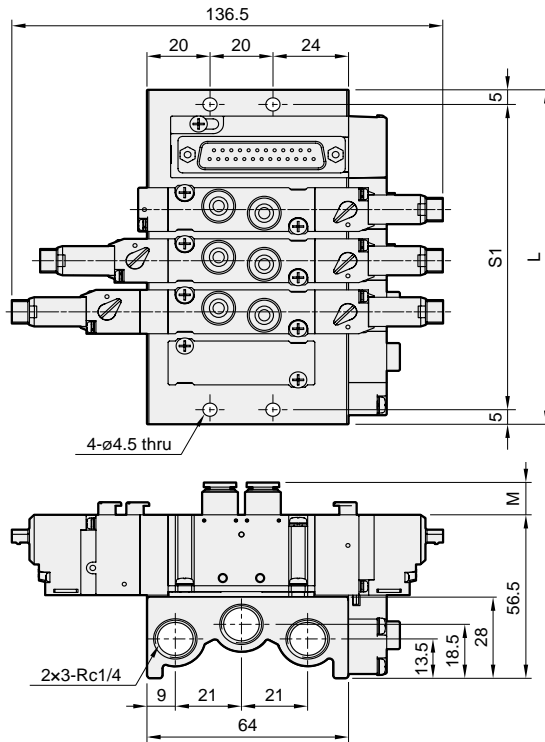
# MVB-156 Dimensions

## MULTI CONNECTOR SYSTEM



### MVB-156-5B\*

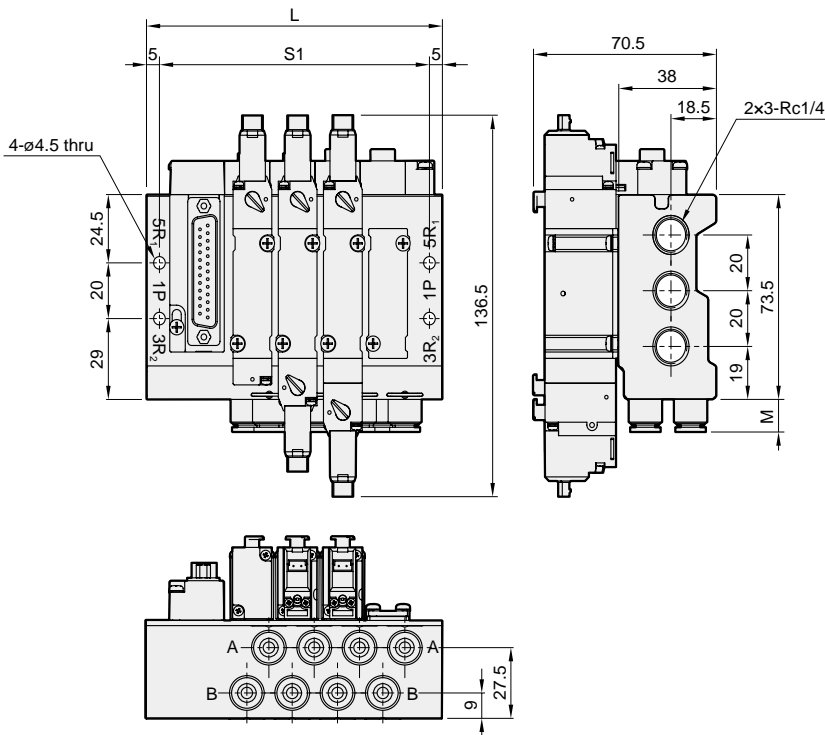
5 port (for body ported type)



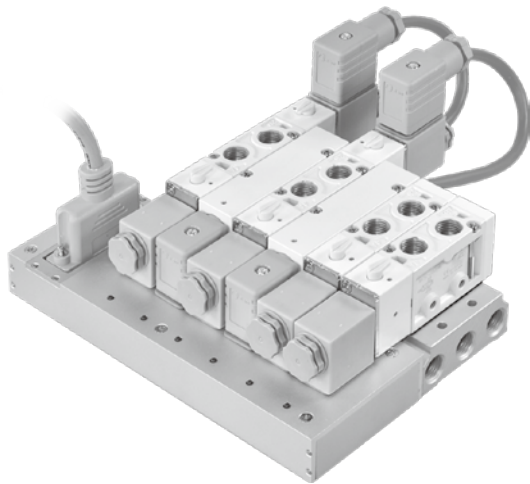
No. of stations	L	S1
2	79.5	69.5
3	97	87
4	114.5	104.5
5	132	122
6	149.5	139.5
7	167	157
8	184.5	174.5
9	202	192
10	219.5	209.5
11	237	227
12	254.5	244.5
Code Port size	M	
C4	13	
C6	14	
C8	18.5	

### MVB-156M-5M\*

5 port (for manifold type)



No. of stations	L	S1
2	79.5	69.5
3	97	87
4	114.5	104.5
5	132	122
6	149.5	139.5
7	167	157
8	184.5	174.5
9	202	192
10	219.5	209.5
11	237	227
12	254.5	244.5
Code Port size	M	
C4	13	
C6	14	
C8	18.5	



### Specification

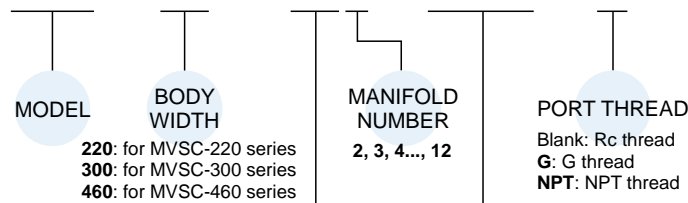
- DC24V
- 25 Pin D-sub connector (cable length 3m).
- Simple electric wire system.

### Remark

- MVB-300, 460 series is available in 3-station~12-station manifold.
- MVB-300, MVB-460 can not be installed with 5/3 valves.
- Individual manifold can be ordered. EX: MVB-220-5B5-G.
- 13-station~20-station manifold can be offered as customised products and please contact sales people before ordering.
- Please contact sales people for the manifold for 3/2 valves.

### Order example (Multi connector system)

**MVB – 220 – 5B6 – SSSDC – G**



**MANIFOLD**  
3B: 3 port (for body ported type)  
5B: 5 port (for body ported type)

**SOLENOID VALVE (for 5B)**

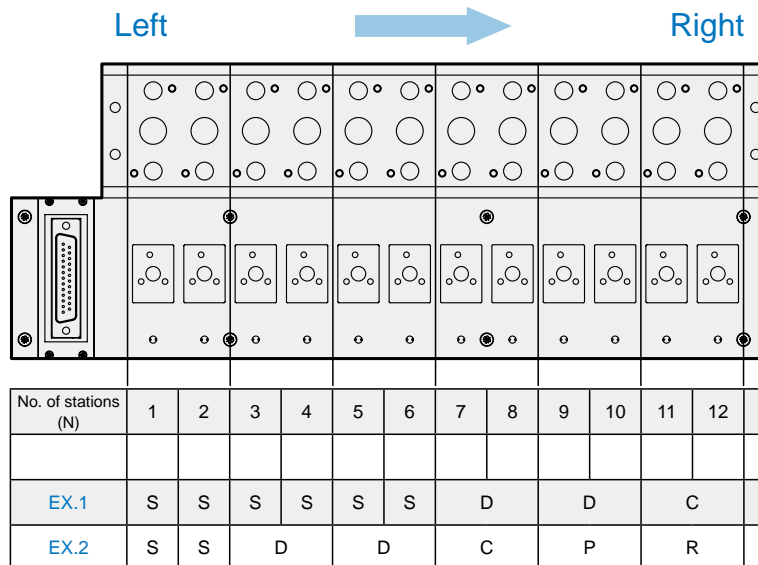
S	4E1-5/2 Single solenoid
D	4E2-5/2 Double solenoid
C	4E2C-5/3 Double solenoid
P	4E2P-5/3 Double solenoid
R	4E2R-5/3 Double solenoid

**SOLENOID VALVE (for 3B)**

C	3E1-NC-3/2 Single solenoid / Normally closed
O	3E1-NO-3/2 Single solenoid / Normally open
D	3E2-3/2 Double solenoid

\* Every double solenoid valve requires 2 stations on the manifold. (One is for the valve and another is for the adapter)  
\* Valves are assembled from the D-sub side.

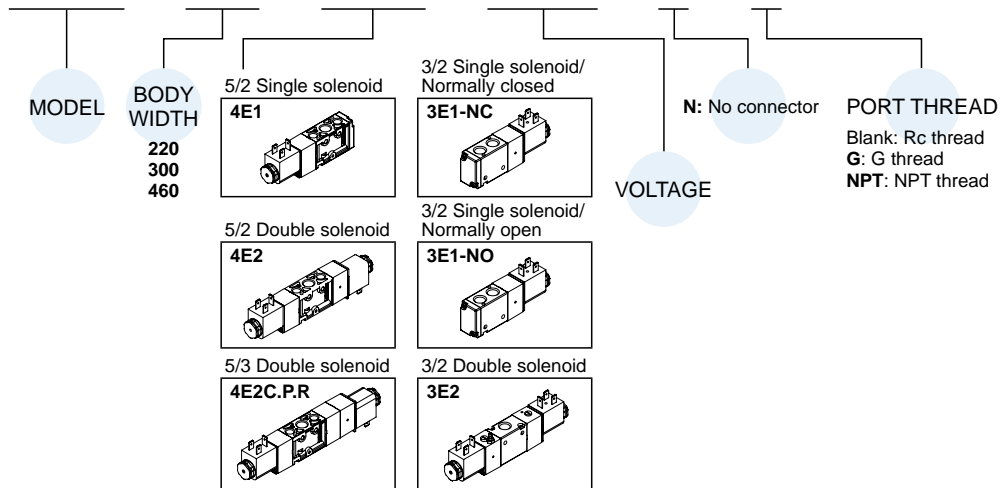
### Valves assembled



\* EX.1 5B12-SSSSSSDDC  
\* EX.2 5B12-SSDDCPR

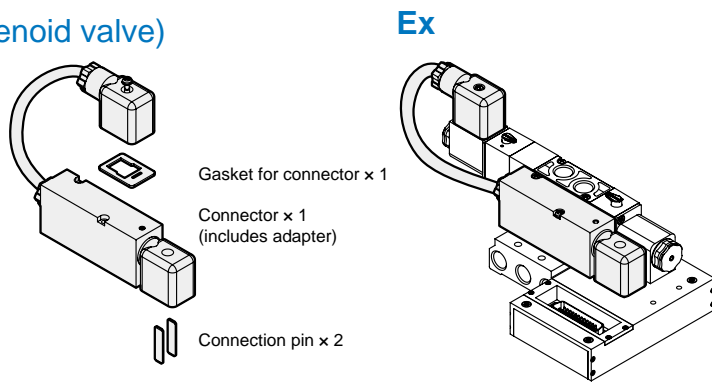
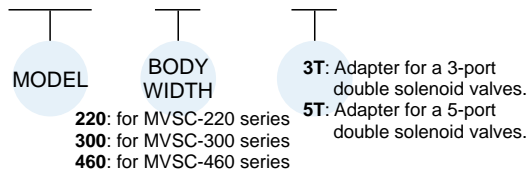
### Order example (Solenoid valve)

## MVSC – 220 – 4E2C – DC24 – N – G



### Order example (Adapter for a double solenoid valve)

## MVB – 220 – 5T



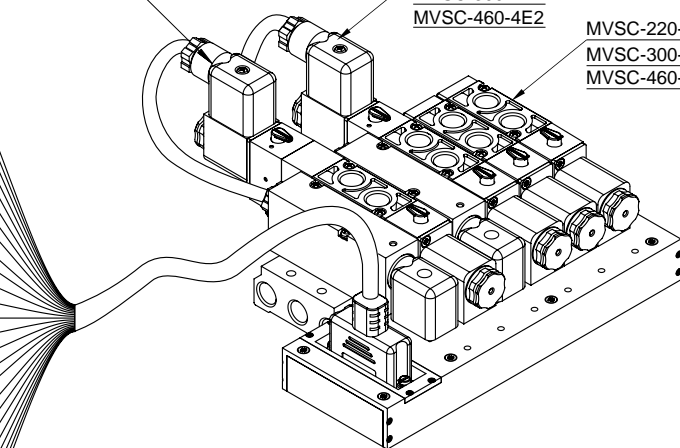
### 25 PIN

Wire color	Pin No.	Coil No.
Brown	1	D-01
Brown / Blank	2	D-02
Red	3	D-03
Red / Black	4	D-04
Orange	5	D-05
Orange / Black	6	D-06
Yellow	7	D-07
Yellow / Black	8	D-08
Green	9	D-09
Green / Black	10	D-10
Blue	11	D-11
Blue / Black	12	D-12
Purple / Black	14	D-13
Gray	15	D-14
Gray / Black	16	D-15
White	17	D-16
White / Black	18	D-17
Pink	19	D-18
Pink / Black	20	D-19
Light purple	21	D-20
Light purple	22	D-21
Light blue	23	D-22
Light blue / Black	24	D-23
Purple	13	COM
Light green	25	COM

MVSC-220-4E2C.P.R

MVSC-220-4E2  
MVSC-300-4E2  
MVSC-460-4E2

MVSC-220-4E1  
MVSC-300-4E1  
MVSC-460-4E1



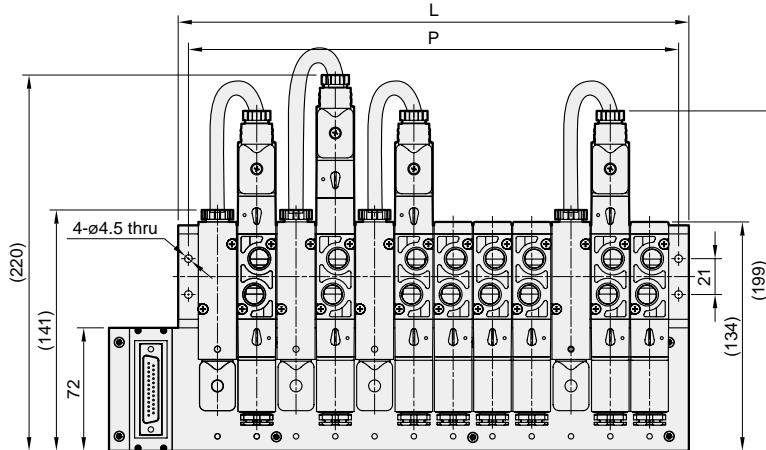
# MVB-220 Dimensions

## MULTI CONNECTOR SYSTEM

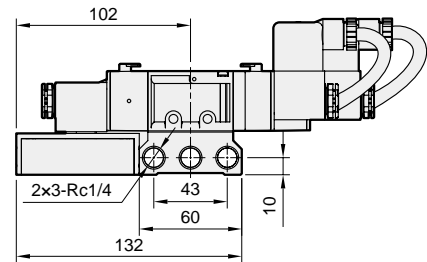
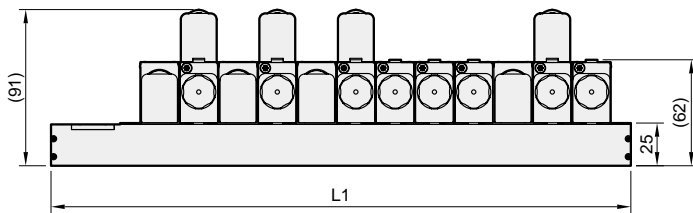


### MVB-220-5B\*

5 port (for body ported type)

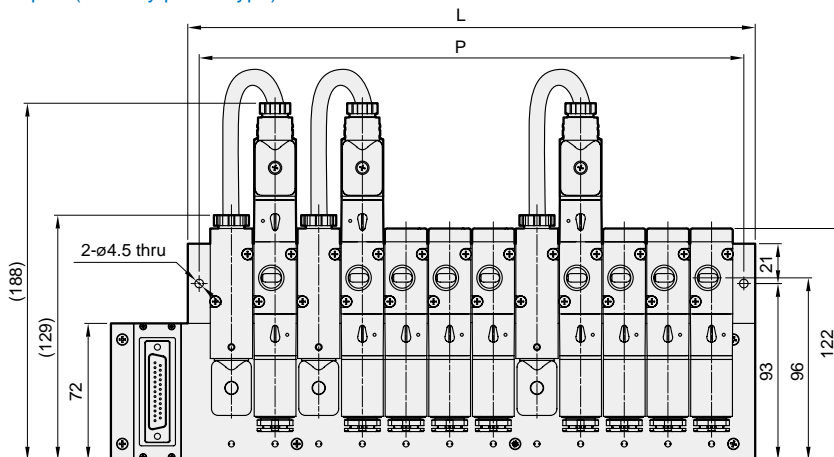


No. of stations	L	L1	P
2	69	109.5	57
3	92	132.5	80
4	115	155.5	103
5	138	178.5	126
6	161	201.5	149
7	184	224.5	172
8	207	247.5	195
9	230	270.5	218
10	253	293.5	241
11	276	316.5	264
12	299	339.5	287

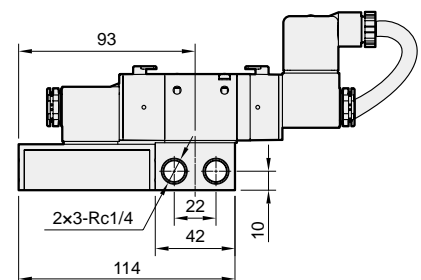
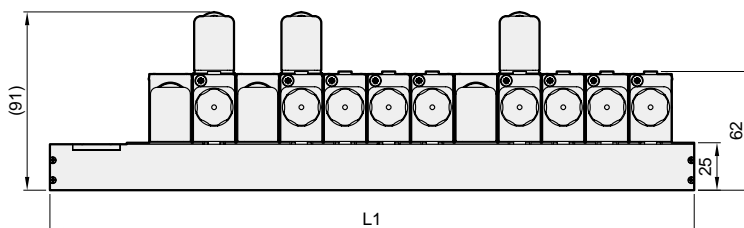


### MVB-220-3B\*

3 port (for body ported type)



No. of stations	L	L1	P
2	69	109.5	57
3	92	132.5	80
4	115	155.5	103
5	138	178.5	126
6	161	201.5	149
7	184	224.5	172
8	207	247.5	195
9	230	270.5	218
10	253	293.5	241
11	276	316.5	264
12	299	339.5	287



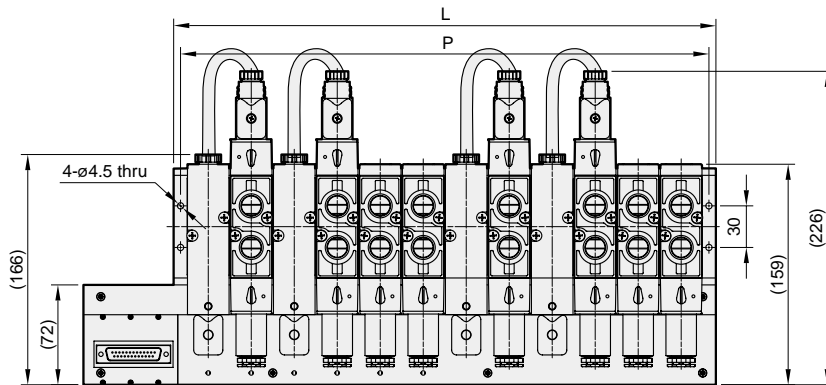
# MVB-300 Dimensions

## MULTI CONNECTOR SYSTEM

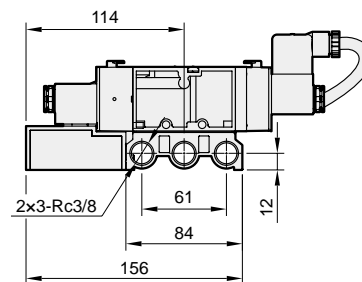
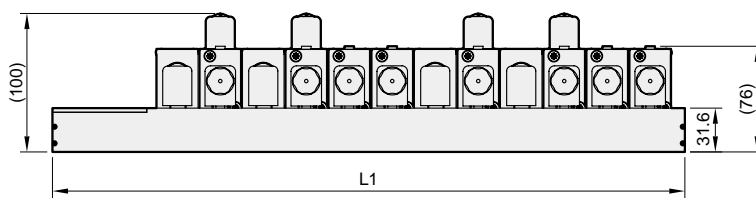


### MVB-300-5B\*

5 port (for body ported type)

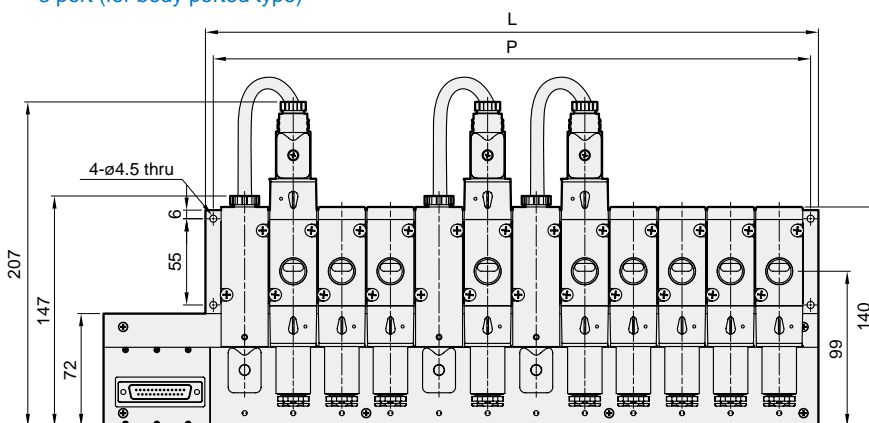


No. of stations	L	L1	P
3	112	177	102
4	143	208	133
5	174	239	164
6	205	270	195
7	236	301	226
8	267	332	257
9	298	363	288
10	329	394	319
11	360	425	350
12	391	456	381

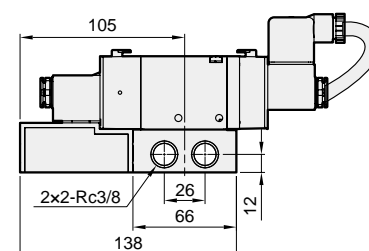
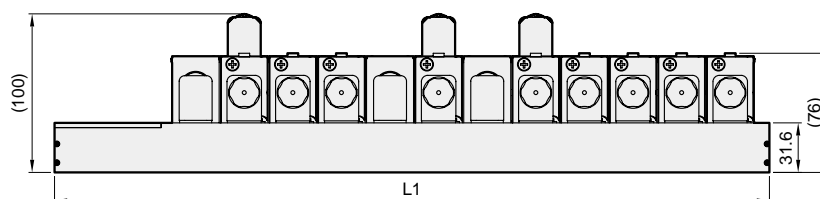


### MVB-300-3B\*

3 port (for body ported type)



No. of stations	L	L1	P
3	112	177	102
4	143	208	133
5	174	239	164
6	205	270	195
7	236	301	226
8	267	332	257
9	298	363	288
10	329	394	319
11	360	425	350
12	391	456	381



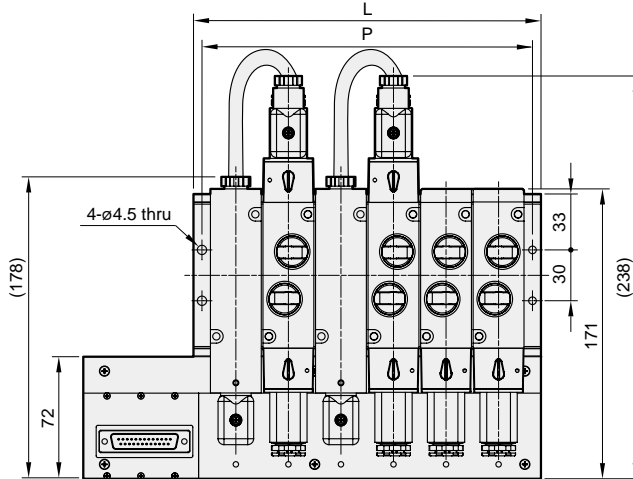
# MVB-460 Dimensions

## MULTI CONNECTOR SYSTEM

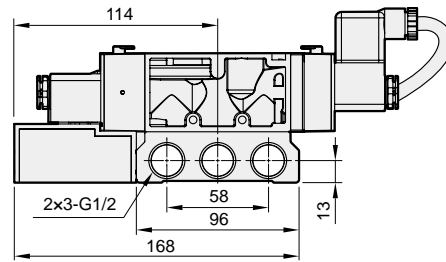
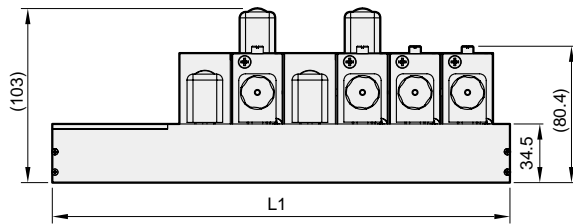


### MVB-460-5B\*

5 port (for body ported type)

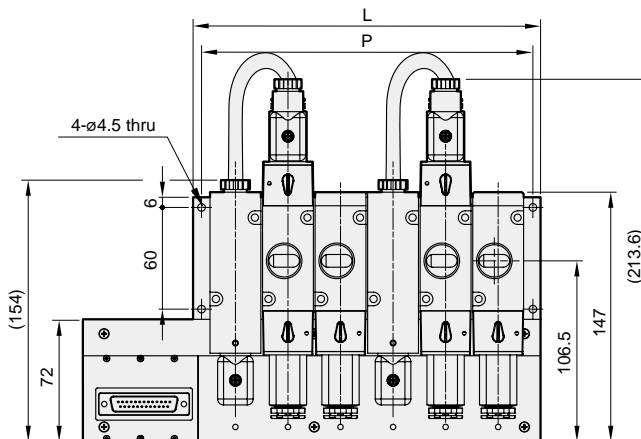


No. of stations	L	L1	P
3	112	177	102
4	143	208	133
5	174	239	164
6	205	270	195
7	236	301	226
8	267	332	257
9	298	363	288
10	329	394	319
11	360	425	350
12	391	456	381

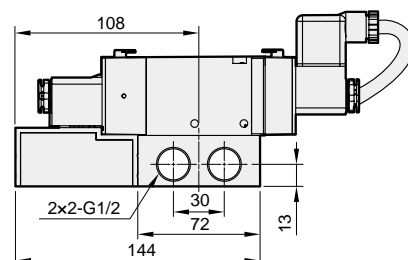
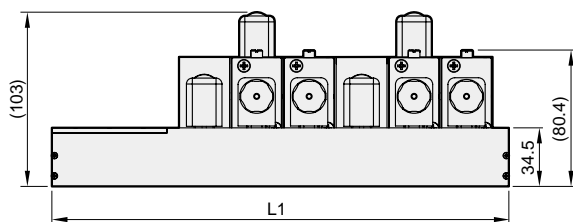


### MVB-460-3B\*

3 port (for body ported type)



No. of stations	L	L1	P
3	112	177	102
4	143	208	133
5	174	239	164
6	205	270	195
7	236	301	226
8	267	332	257
9	298	363	288
10	329	394	319
11	360	425	350
12	391	456	381

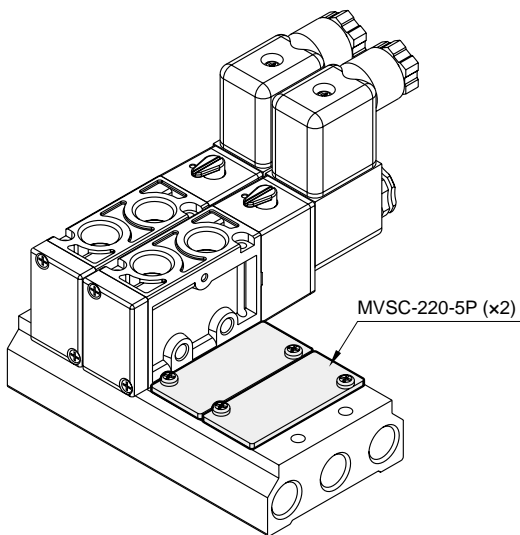


### Order example

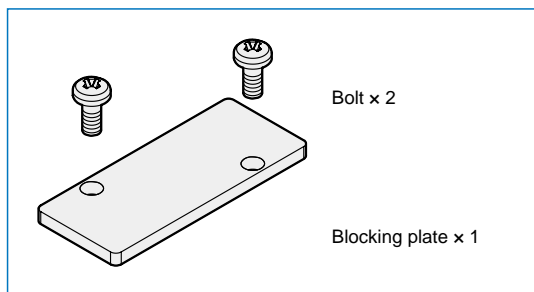
**MVSC – 220 – 5P**

MODEL

BLOCKING  
PLATE  
3P: for 3 port  
5P: for 5 port



### Blocking plate parts



### Blocking plate table

Applicable model	Symbol for order	
	3P: for 3 port	5P: for 5 port
<b>MVSC-220</b>	MVSC-220-3P	MVSC-220-5P
<b>MVSC-260</b>	–	MVSC-260-5P
<b>MVSC-300</b>	MVSC-300-3P	MVSC-300-5P
<b>MVSC-460</b>	–	MVSC-460-5P
<b>MVSD-180</b>	MVSP-180-3P (*1)	MVSP-180-5P (*1)
<b>MVSD1-180</b>	–	MVSD1-180-5P
<b>MVSE-260</b>	–	MVSC-260-5P (*2)
<b>MVSE-300</b>	–	MVSE-300-5P
<b>MVSE-500</b>	–	MVSC-460-5P (*2)
<b>MVSF-100</b>	MVSF-100-3P	MVSF-100-5P
<b>MVSG-180</b>	–	MVSG-180-5P
<b>MVSP-150</b>	–	MVSP-150-5P
<b>MVSP-156</b>	–	MVSY-156-5P (*3)
<b>MVSP-180</b>	MVSP-180-3P	MVSP-180-5P
<b>MVSP-188</b>	–	MVSY-188-5P (*3)
<b>MVSP-220</b>	MVSP-220-3P	MVSC-220-5P (*2)
<b>MVSY-100</b>	–	MVSY-100-5P
<b>MVSY-156</b>	–	MVSY-156-5P
<b>MVSY-188</b>	–	MVSY-188-5P
<b>MVSZ-100</b>	–	MVSZ-100-5P
<b>MVDY-100</b>	MVDY-100-3P	–

\*1. Use the same blocking plate with **MVSP**.

\*2. Use the same blocking plate with **MVSC**.

\*3. Use the same blocking plate with **MVSY**.

