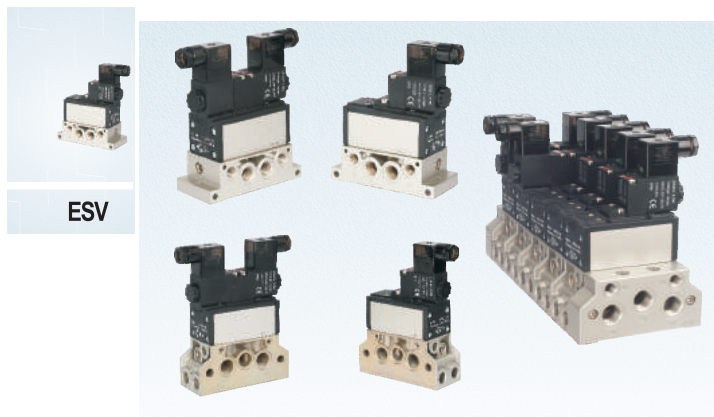


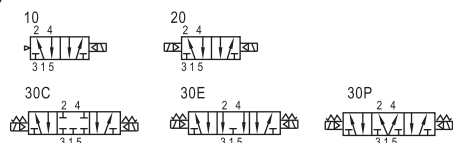
ISO Standard solenoid valve(5/2, 5/3 way)

AIRTAC

ESV200, 300, 400, 600 Series



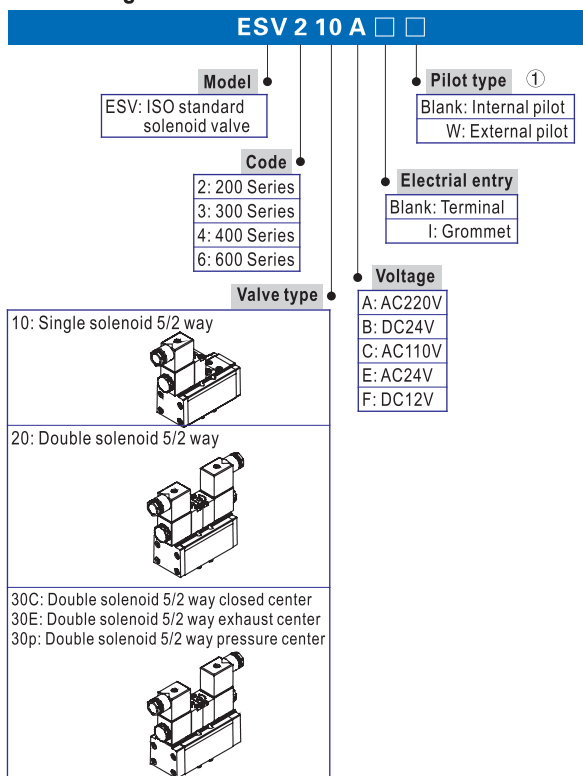
Symbol



Product feature

1. Succinct appearance and compact conformation.
2. The installation size conforms to ISO 5599/1 standard.
3. Because of the special seals, the feature are large flow rate and long lifetime.
4. For 200\300\400 series you can adjust the installation direction of the gasket to change the acting type: internal pilot, external pilot, or air control.
5. You need install the valve together with the sub-base. There are individual and parallel type for manifold sub-base.
6. There are various connection and installation method for manifold. It is easy to use.
7. The manifold of 200\300\400 series have the function of exhaust throttling, so no need to connect another throttle valve.

Ordering code of valve



① Note: Internal pilot can be changed to external pilot mode(except 600 series), please adjust the installation method of the gasket referring to article 1 o 2 in the installation manual.

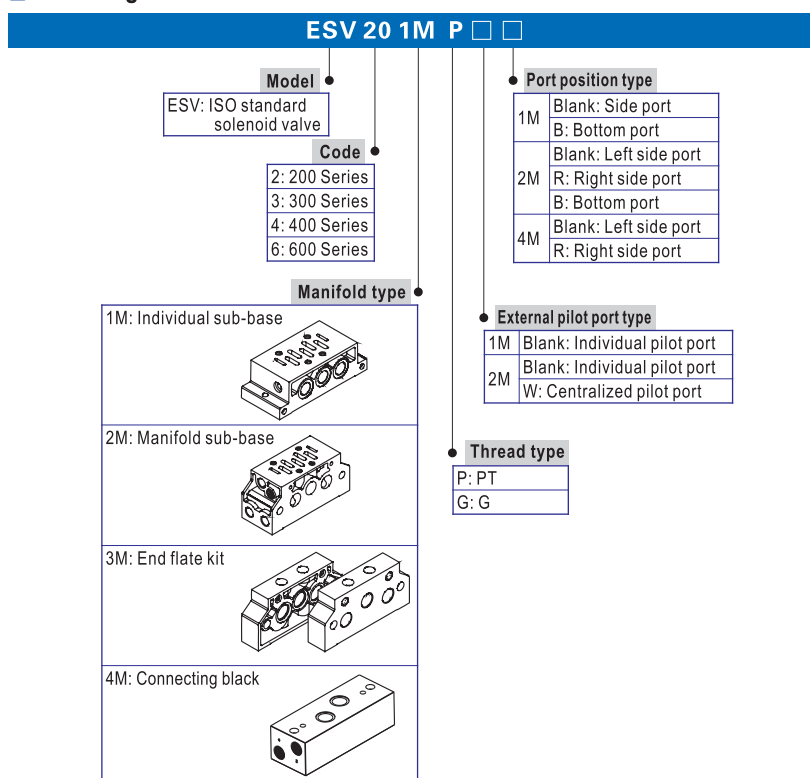
Specification

Item		Specification			
Model		200Series	300 Series	400 Series	600 Series
Fluid		Air(to be filtered by 40 μ m filter element)			
Acting		Internal pilot or external pilot			
Lubrication ①		Not required			
Operating Pressure	Internal pilot	0.2~1.0Mpa(29~145psi)			
	External pilot	0~1.0Mpa(0~145psi)			
Control pressure(External pilot)		0.2~1.0Mpa(29~145psi)			
Proof pressure		1.5Mpa(215psi)			
Temperature		-20~70 ℃			
Port size(manifold) ②		1/4"	3/8"	1/2"	3/4"
Port size(end plate)		3/8"	1/2"	3/4:	1
Voltage range		AC:±15%		DC:±10%	
Power consumption		AC:3.5VA		DC:3.0W	
Activating time (0.5MPa)Open/close	10\20 Series	33\41ms	42\55ms	50\68ms	55\85ms
	30 C\E\P Series	38\50ms	52\62ms	52\68ms	55\85ms
Insulation		Class B			
Protection		IP65			
Installation size		ISO5599-1 standard			

① Note: Once lubricated air is used, continue with same medium to optimise valve life span. Lubricants like ISO VG32 or equivalent are recommended.

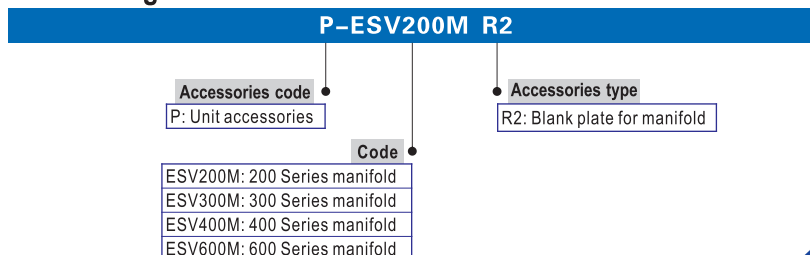
② Note: PT thread and G thread are available.

Ordering code of manifold



- Note: 1. For the same model, the port size of the end-plate is bigger than the sub-base (For example ESV202M, the port size of sub-base is 1/4", and the port size of end plate is 3/8").
2. Only individual pilot port is available for individual sub-base.
3. The manifold sub-base must be used with end plate kit, individual pilot port and centralized pilot port can be mixed.
4. 600 series individual sub-base only has side port, 600 series manifold sub-base only has individual pilot port and bottom port.
5. Only 600 series have connecting black.

Ordering code of accessories



ISO Standard solenoid valve(5/2, 5/3 way)



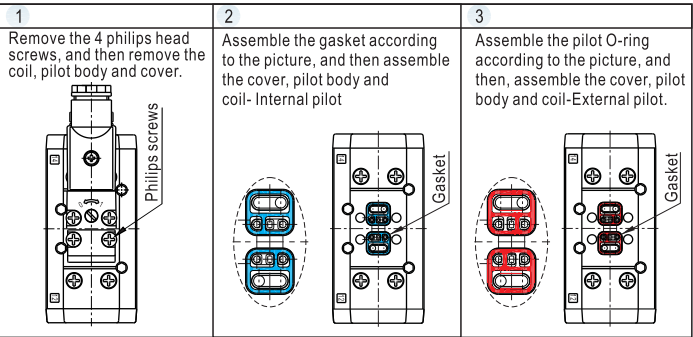
ESV200, 300, 400, 600 Series

■ Installation and operation(For 200, 300, 400 series)

1. The classification and selection for the pilot type of valve

1.1. According to the source of pilot air, we can divide the valve into two types: the internal pilot and external pilot. The standard type is internal pilot.

1.2. You can convert from internal pilot to external pilot by the following methods.



2. The classification and selection for the parallel manifold sub-base

2.1. According to the direction of pilot air supply, we can divide the manifold sub-base into two types: the individual pilot and centralized pilot.

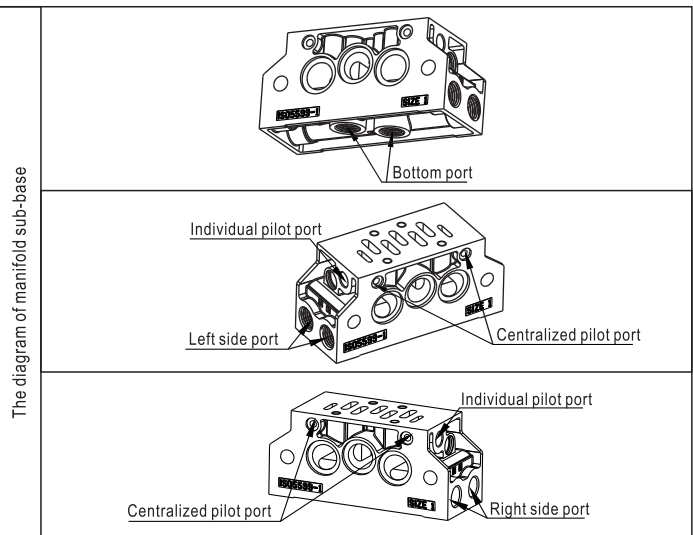
2.2. If you select the individual pilot, the fitting must be connected to the individual pilot ports.

If you select the centralized pilot type, the fitting must be connected to the centralized pilot ports.

2.3. If you use parallel manifold, all of the manifold must be used the same pilot type: such as, all of them are the individual pilot type, or all of them are the centralized pilot type.

* Note: Only when you use the external pilot type, you can select the individual pilot or centralized pilot. When you use the internal pilot type, the pilot ports on the manifold are ineffective.

3. The position and specification of the manifold sub-base ports



Port status of manifold sub-base					
Port working condition	Port name	Left side port	Right side port	Bottom port	Centralized pilot port
Ordering code					Individual pilot port
ESV202MG	Use	Unused	Unused	Unused	Use
ESV202MGR	Unused	Use	Unused	Unused	Use
ESV202MGB	Unused	Unused	Use	Unused	Use
ESV202MGW	Use	Unused	Unused	Use	Unused
ESV202MGWR	Unused	Use	Unused	Use	Unused
ESV202MGWB	Unused	Unused	Use	Use	Unused

Note: Please seal the bottom port by plug, when it is unused.

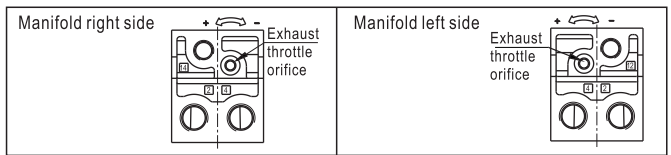
The above list is an example of 200M series' ordering code, the other series is follow the same pattern, only need to change the series code.

4. Exhaust throttle function

4.1. The manifold has exhaust throttle function, the below picture shows the position of the exhaust throttle orifices on each side.

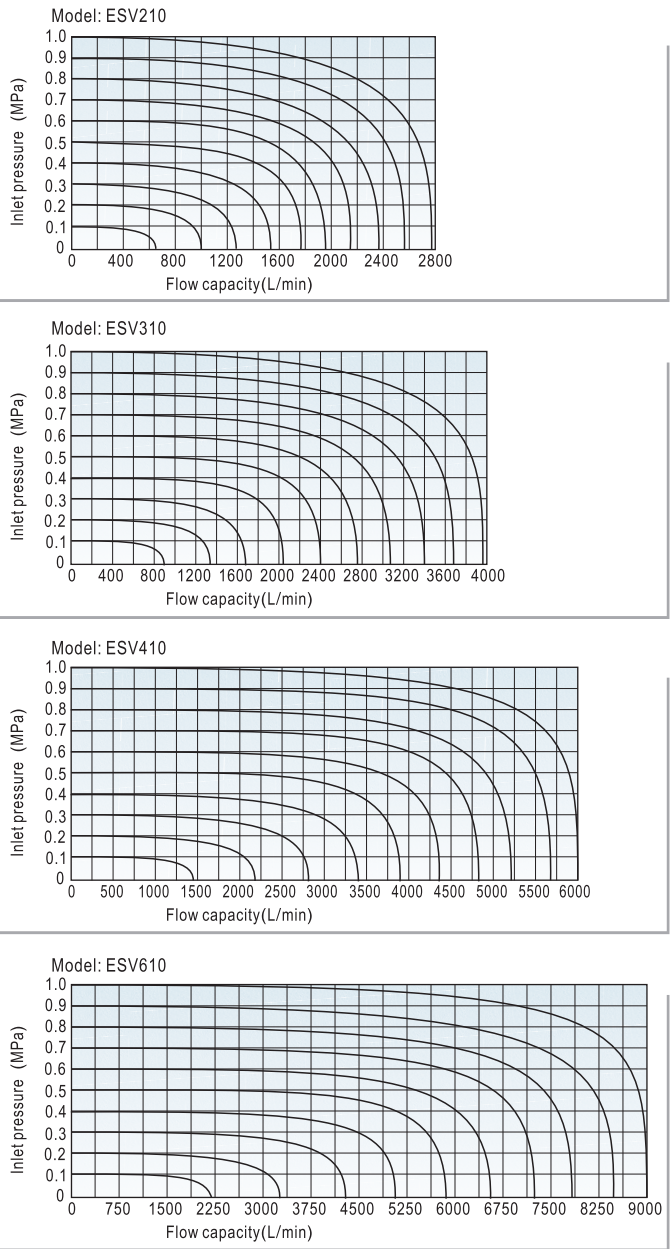
4.2. Use allen key to adjust the screw.

4.3. Rotate the screw clockwise to reduce the exhaust orifice, rotate the screw counter-clockwise to enlarge the exhaust orifice.



ESV

■ Flow chart



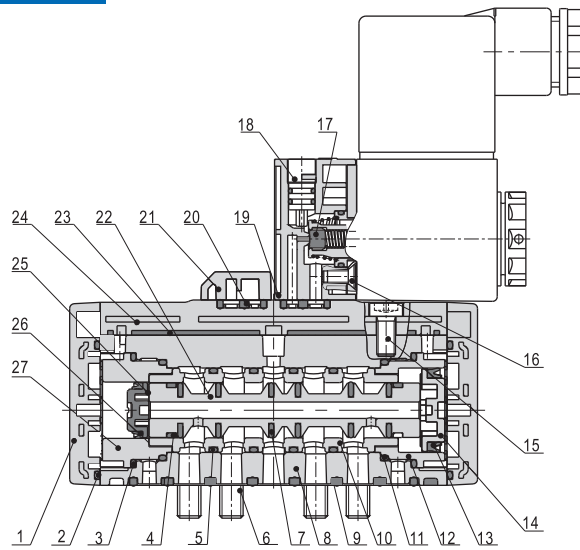
ISO Standard solenoid valve(5/2, 5/3 way)

AIRTAC

ESV200, 300, 400, 600 Series

Inner structure

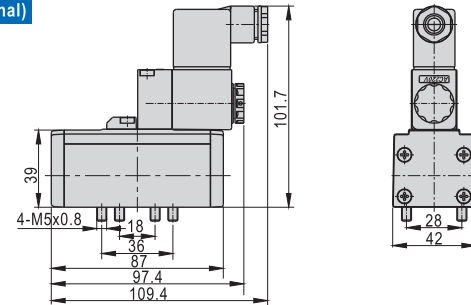
ESV210 (Terminal)



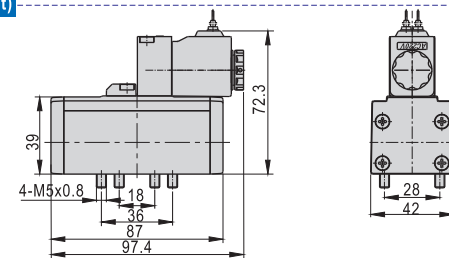
NO.	Item	NO.	Item	NO.	Item
1	Bottom cover	10	Spacer	19	Pilot kit
2	O-ring	11	O-ring	20	Gasket
3	O-ring	12	Big piston sheath	21	Cover plate
4	Wear ring	13	Big piston O-ring	22	Spool
5	O-ring	14	Big piston	23	Upper cover gasket
6	Screw	15	Screw	24	Upper cover
7	O-ring	16	Screw	25	Small piston
8	Body	17	Gasket	26	Small piston O-ring
9	Gasket	18	Manual override	27	Small piston sheath

Dimensions(ESV200 Series)

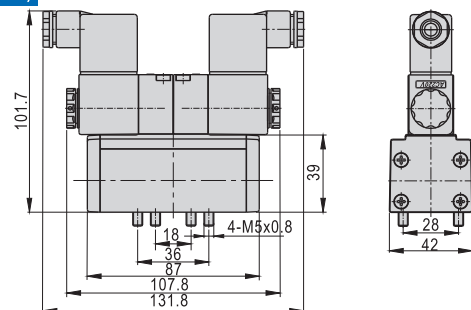
ESV210 (Terminal)



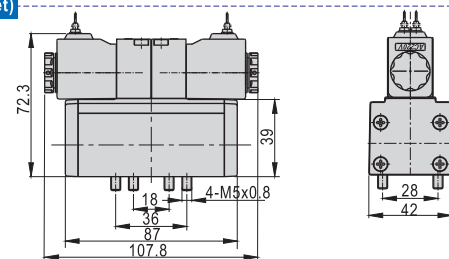
ESV210 (Grommet)



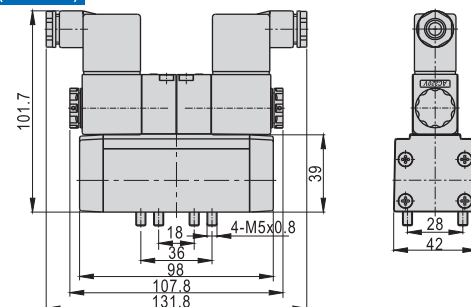
ESV220 (Terminal)



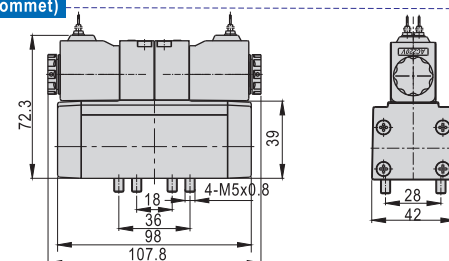
ESV220 (Grommet)



ESV230C(EIP) (Terminal)



ESV230C(EIP) (Grommet)

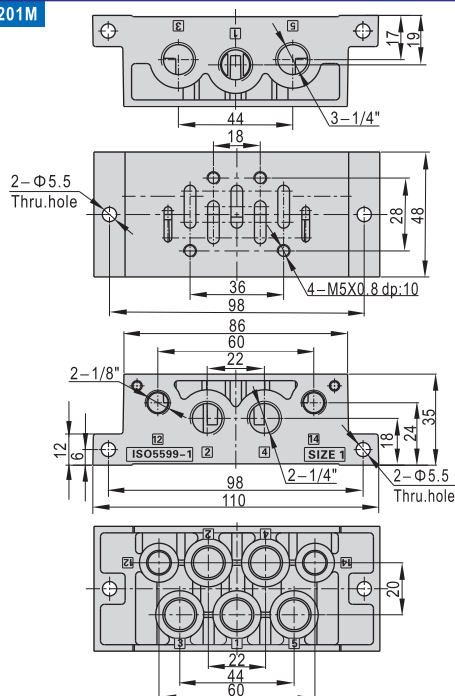


ISO Standard solenoid valve(5/2, 5/3 way)

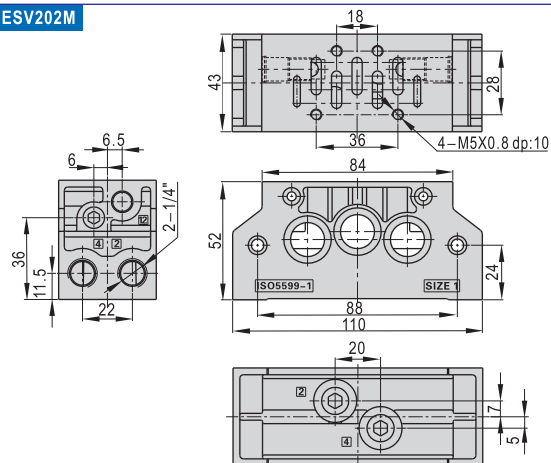
AIRTAC

ESV200, 300, 400, 600 Series

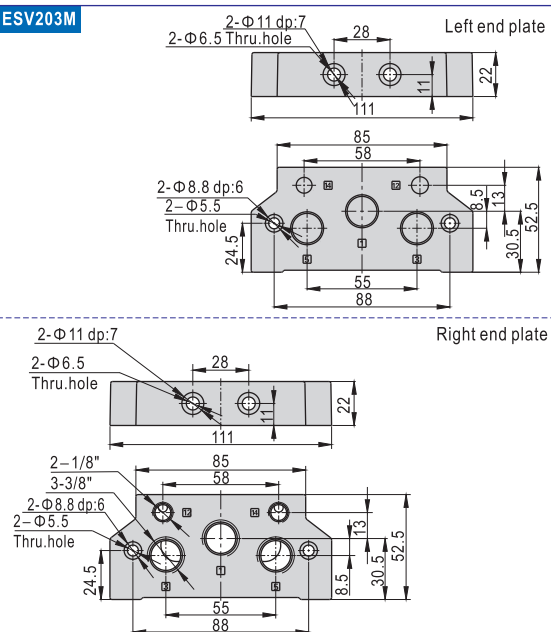
ESV201M



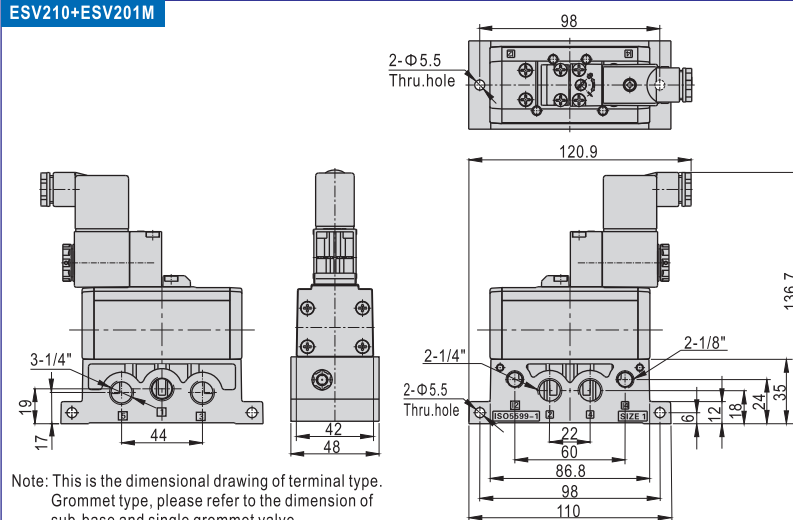
ESV202M



ESV203M

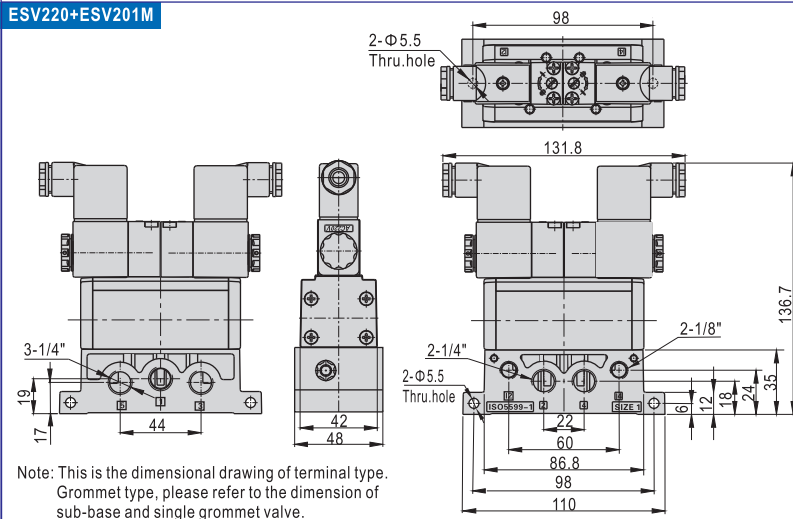


ESV210+ESV201M



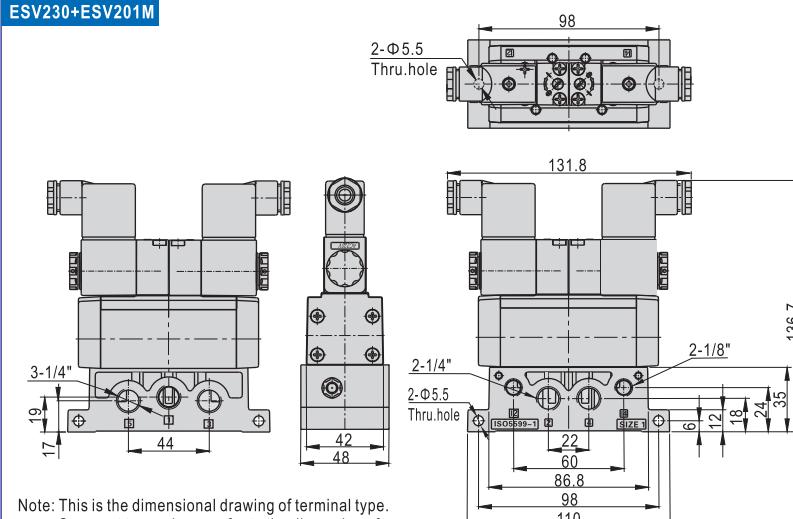
Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.

ESV220+ESV201M



Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.

ESV230+ESV201M



Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.



ESV

ISO Standard solenoid valve(5/2, 5/3 way)

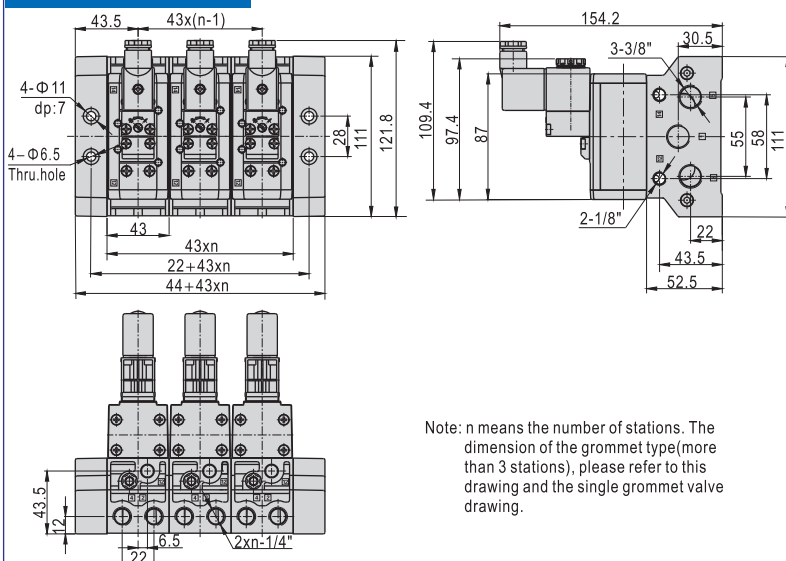
ESV200, 300, 400, 600 Series

AIRTAC

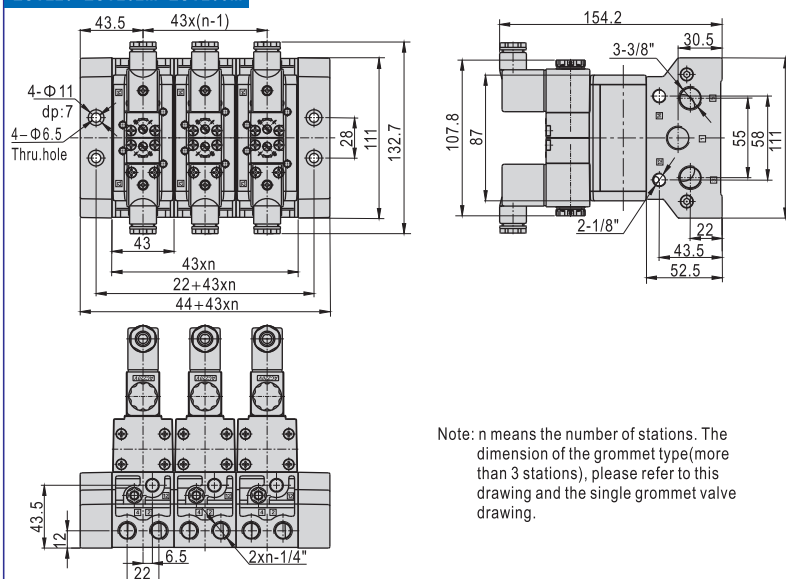


ESV

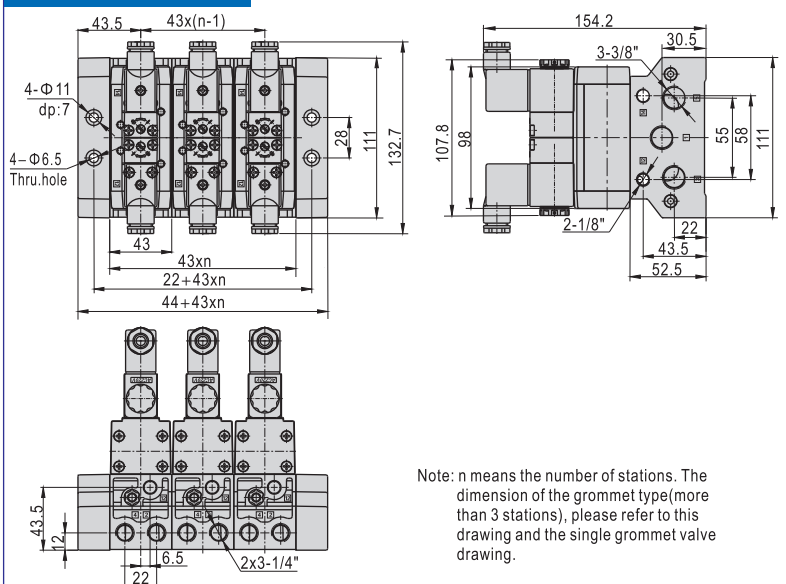
ESV210+ESV202M+ESV203M



ESV220+ESV202M+ESV203M

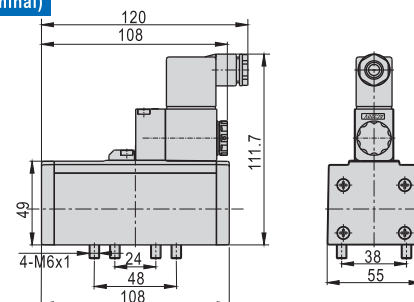


ESV230+ESV202M+ESV203M

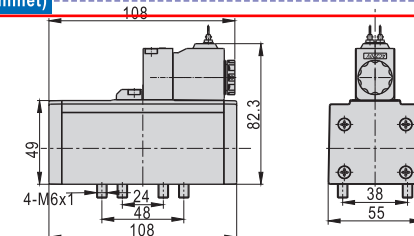


Dimensions (ESV300 Series)

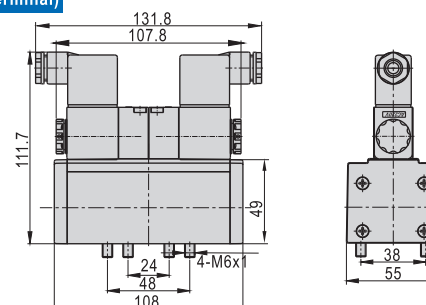
ESV310 (Terminal)



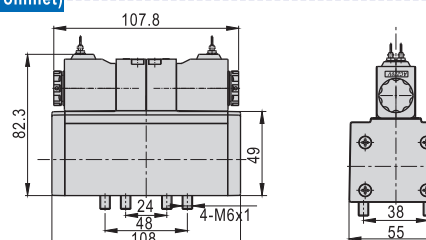
ESV310 (Grommet)



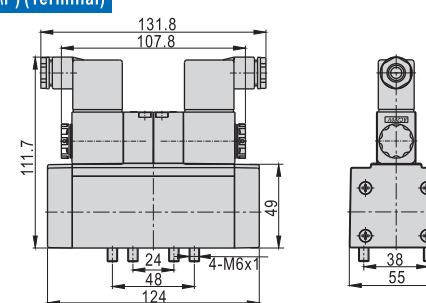
ESV320 (Terminal)



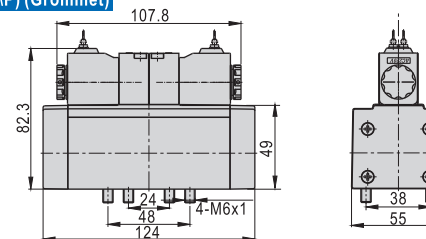
ESV320 (Grommet)



ESV330C(E/P) (Terminal)



ESV330C(E/P) (Grommet)



AirTAC



ESV

Technical drawing of the ISO 5599-1 flange, showing three views: front, top, and side.

Front View (Top):

- Overall width: 112
- Overall height: 57
- Central hole diameter: $2-\Phi 6.5$ Thru.hole
- Four mounting holes: $4-M6 \times 1 \text{ dp:10}$
- Dimensions: 24, 48, 99

Top View (Middle):

- Overall width: 124
- Overall height: 29
- Central hole diameter: $2-1/8"$
- Four mounting holes: $2-\Phi 6.5$ Thru.hole
- ISO 5599-1 standard marking
- SIZE 2 marking
- Dimensions: 71, 26, 112, 124, 23

Side View (Bottom):

- Overall width: 54
- Overall height: 24
- Central hole diameter: $2-3/8"$
- Four mounting holes: $2-\Phi 6.5$ Thru.hole
- Dimensions: 71, 26

Technical drawing of the ESV302M valve assembly, showing three views: top, front, and side.

Top View: Dimensions include 38, 56, 102, 24, 48, and 6.5. A callout indicates 4-M6x1 dp:12.

Front View: Dimensions include 60, 107, 135, 31, and 6.5. Labels include ISO5599-1 and SIZE 2.

Side View: Dimensions include 30, 6, 6, and 2-3/8".

ESV303M

Left end plate

2-Φ6.5 Thru.hole
2-Φ11 dp:7

13
26
35
102
68
12
14
3
66
107
136
2-Φ6.5 Thru.hole
2-Φ10.5 dp:6.5
27.5
31.5
37.5
51.5
60.5

Right end plate

2-Φ11 dp:7
2-Φ6.5 Thru.hole
2-Φ10.5 dp:6.5

2-1/8"
3-1/2"

13
26
35
102
68
12
14
3
66
107
136
27.5
31.5
37.5
51.5

Technical drawing of the ESV310M/ESV301M terminal block, showing three views: top, front, and side. The drawing includes the following dimensions and labels:

- Top View:**
 - Overall width: 112
 - Overall height: 127.9
 - Distance between thru-holes: 120
 - Thru-hole diameter: 2-Φ6.5
 - Thru-hole diameter: 2-1/8"
- Front View:**
 - Overall height: 151.7
 - Overall width: 120
 - Distance between thru-holes: 112
 - Thru-hole diameter: 2-Φ6.5
 - Thru-hole diameter: 2-1/8"
- Side View:**
 - Overall height: 120
 - Overall width: 112
 - Distance between thru-holes: 120
 - Thru-hole diameter: 2-Φ6.5
 - Thru-hole diameter: 2-1/8"

Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.

2-Ø6.5
Thru.hole

112

131.8
124

2-1/8"
2-3/8"
2-Ø6.5
Thru.hole

25
22
54
55
57

3-3/8"

151.7

26
71
100
112
124

7
14
23
29
40

Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of sub-base and single grommet valve.

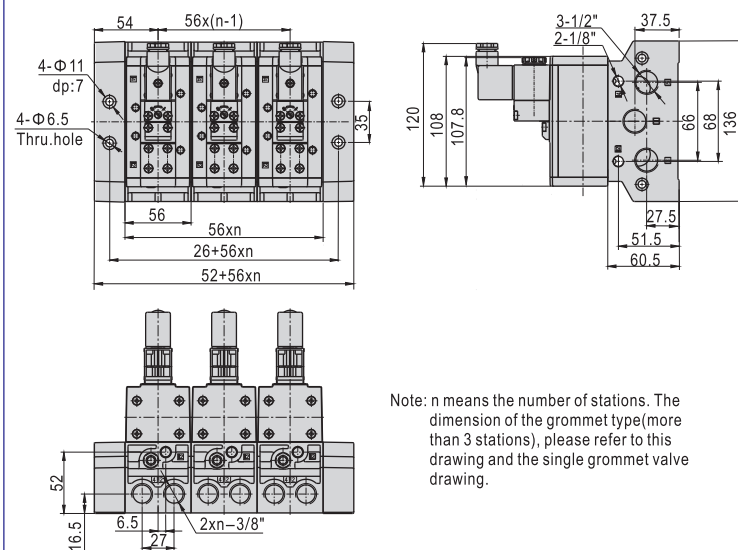
ISO Standard solenoid valve(5/2, 5/3 way)

ESV200, 300, 400, 600 Series

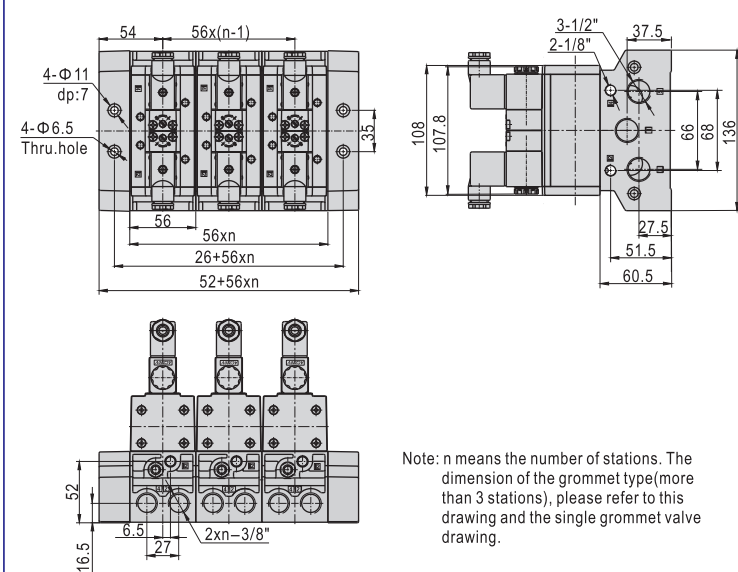
AIRTAC



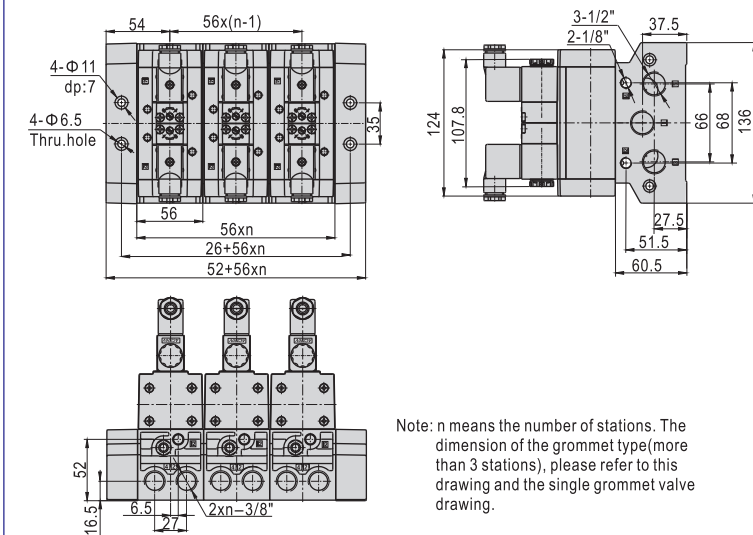
ESV310+ESV302M+ESV303M



ESV320+ESV302M+ESV303M

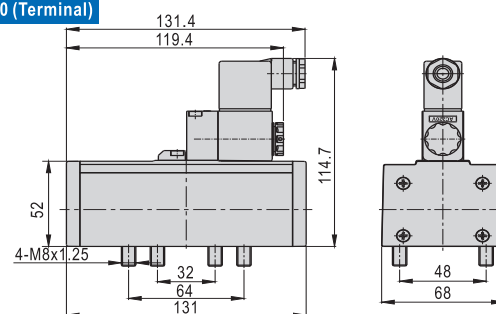


ESV330+ESV302M+ESV303M

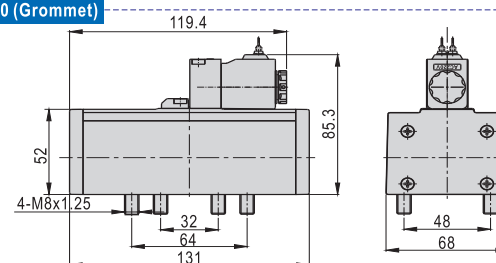


■ Dimensions(ESV400 Series)

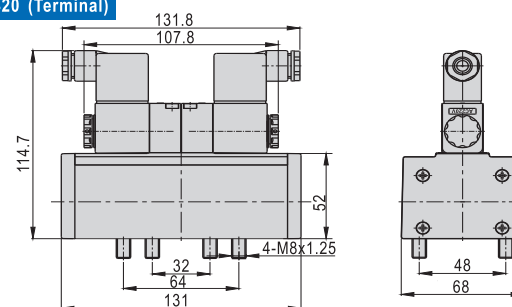
ESV410 (Terminal)



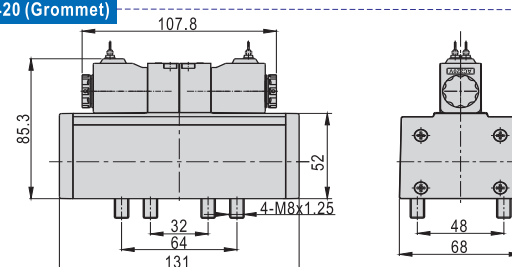
ESV410 (Grommet)



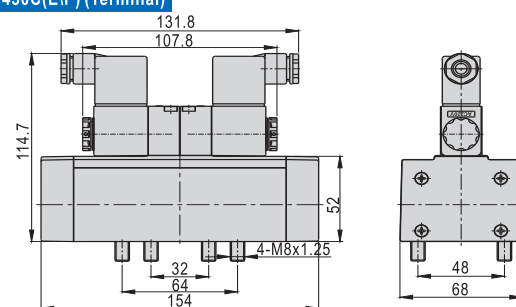
ESV420 (Terminal)



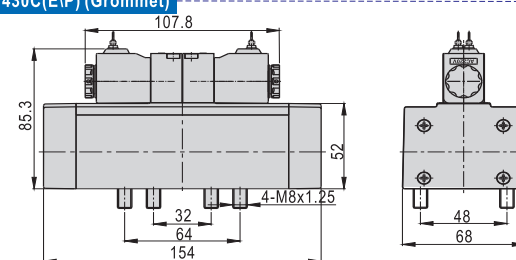
ESV420 (Grommet)



ESV430C(E/P) (Terminal)



ESV430C(E/P) (Grommet)

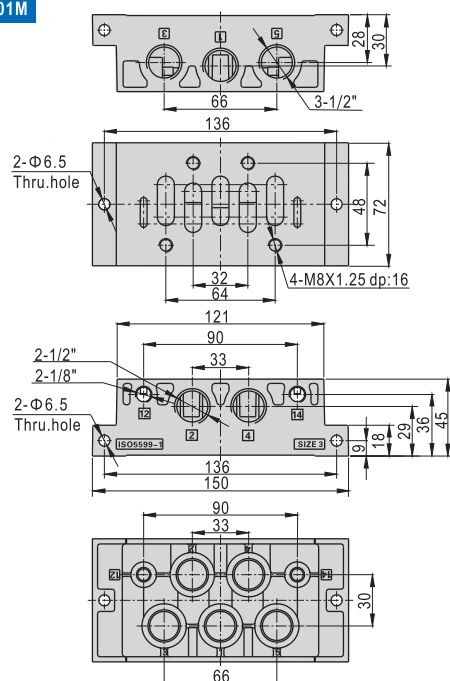


ISO Standard solenoid valve(5/2, 5/3 way)

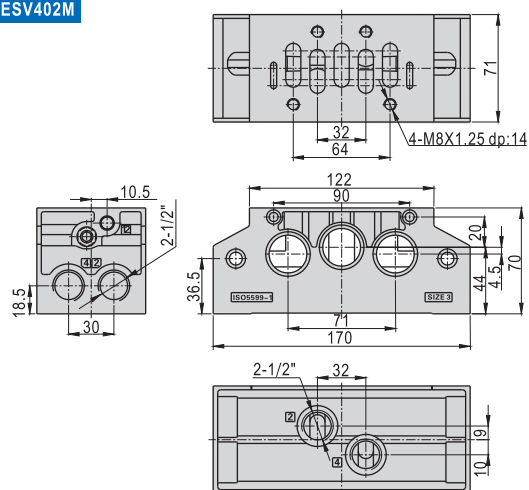
AIRTAC

ESV200, 300, 400, 600 Series

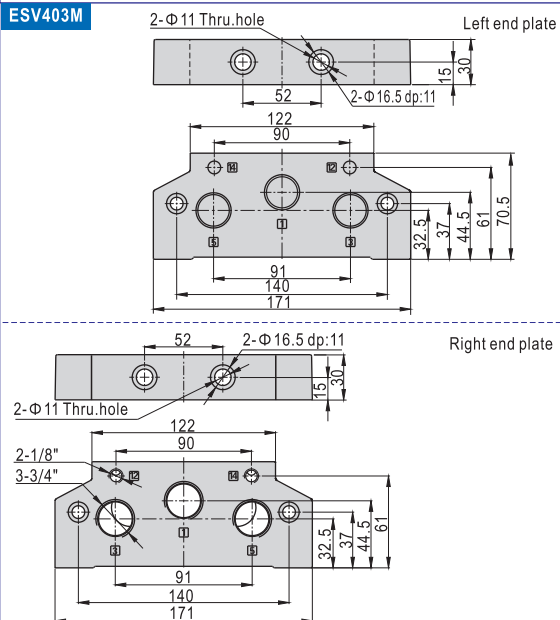
ESV401M



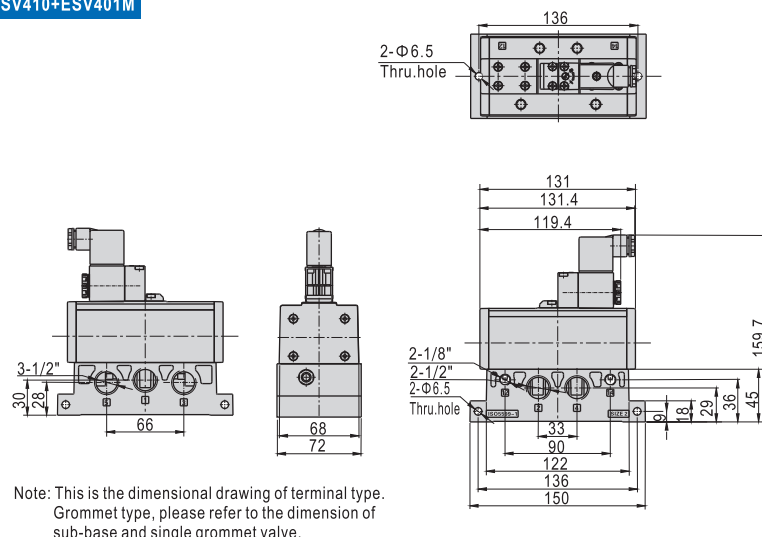
ESV402M



ESV403M

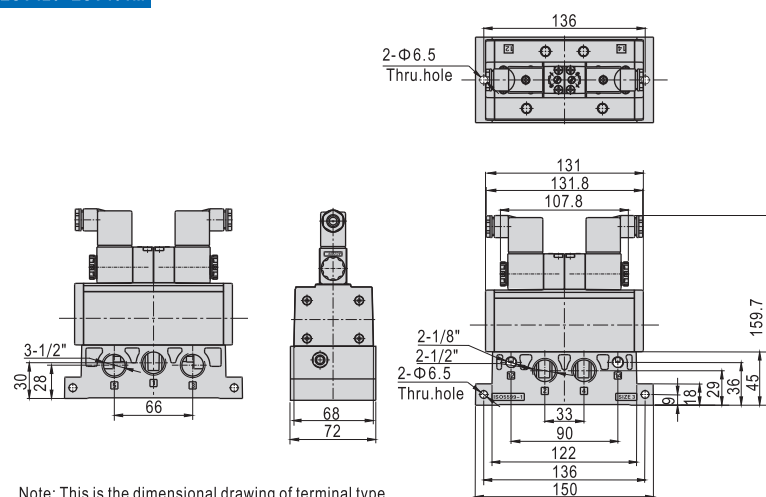


ESV410+ESV401M



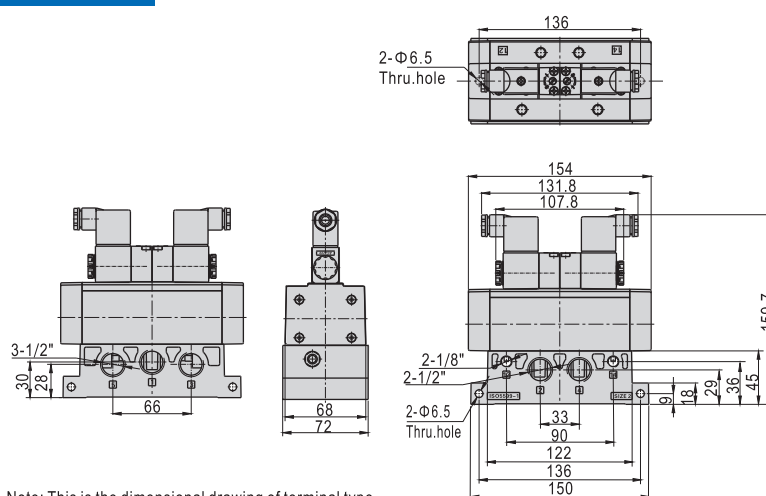
Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.

ESV420+ESV401M



Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.

ESV430+ESV401M



Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.



ESV

ISO Standard solenoid valve(5/2, 5/3 way)

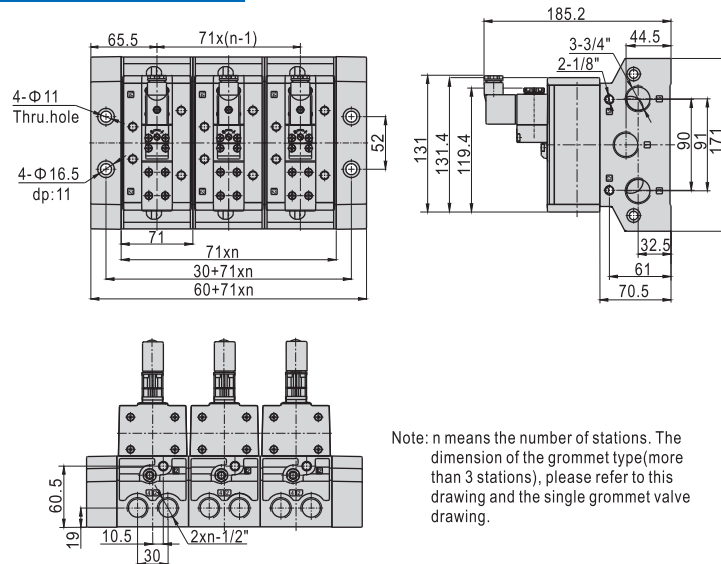
ESV200, 300, 400, 600 Series

AIRTAC

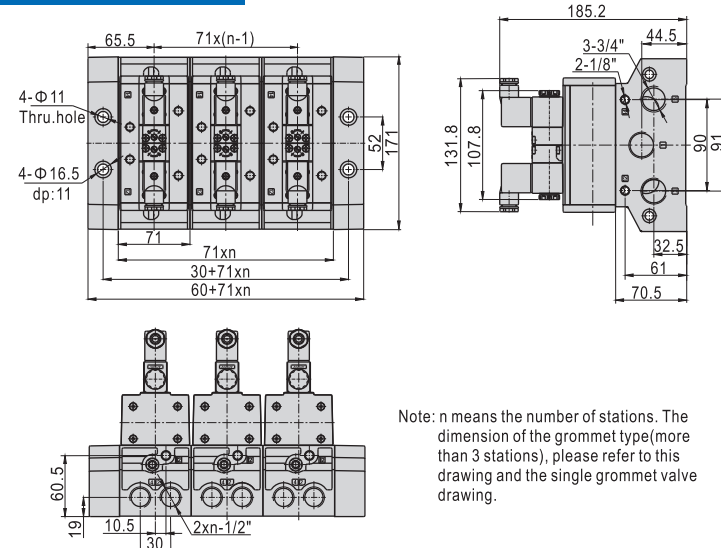


ESV

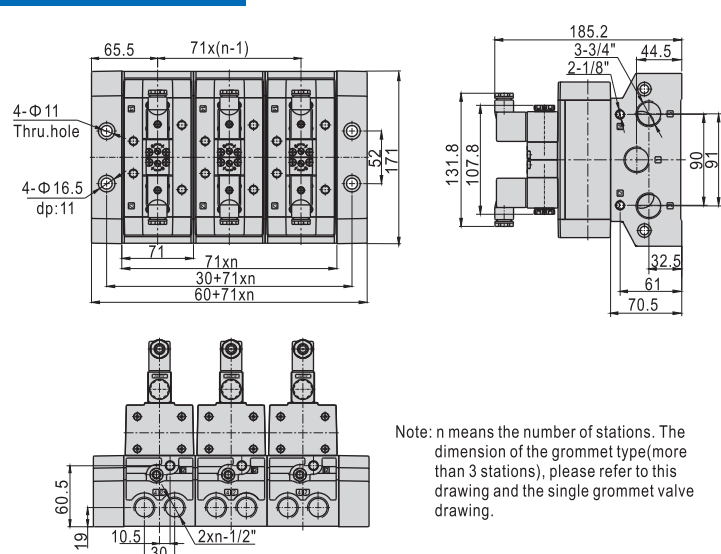
ESV410+ESV402M+ESV403M



ESV420+ESV402M+ESV403M

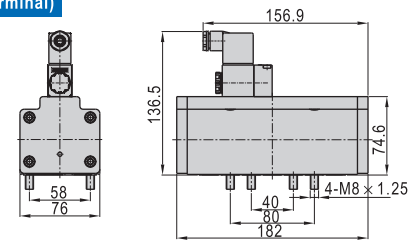


ESV430+ESV402M+ESV403M

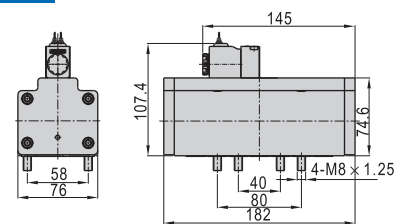


■ Dimensions(ESV600 Series)

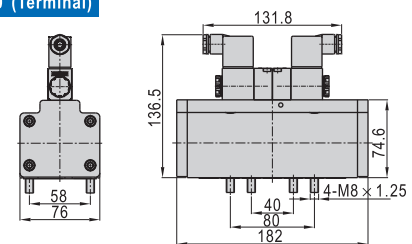
ESV610 (Terminal)



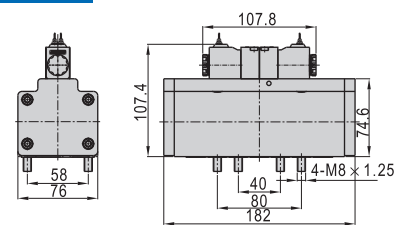
ESV610 (Grommet)



ESV620/630 (Terminal)



ESV620/630 (Grommet)

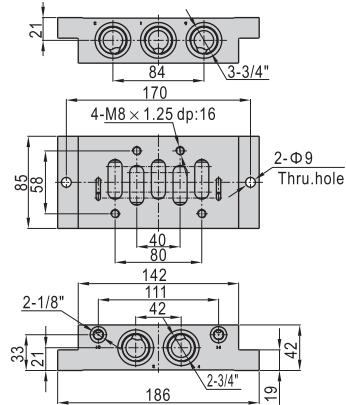


ISO Standard solenoid valve(5/2, 5/3 way)

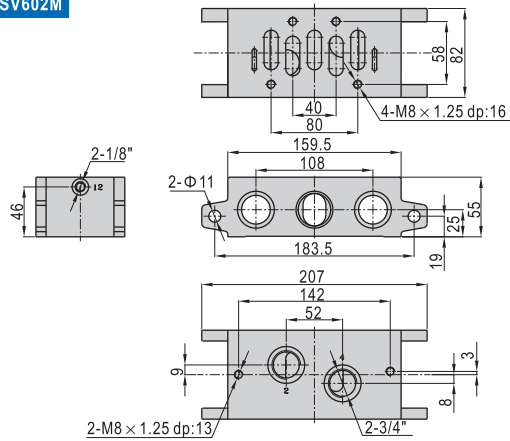
AIRTAC

ESV200, 300, 400, 600 Series

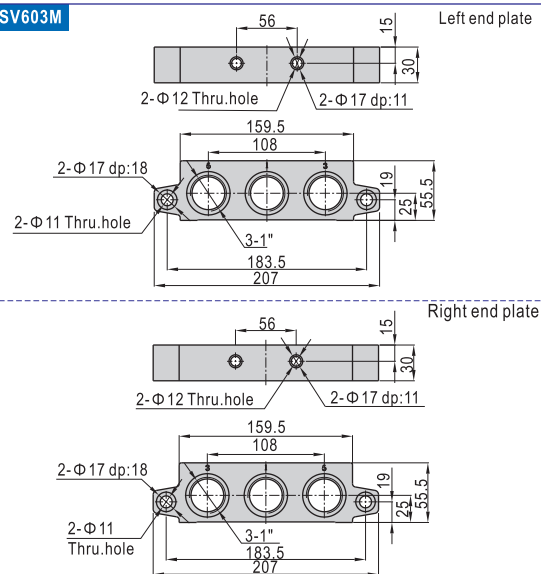
ESV601M



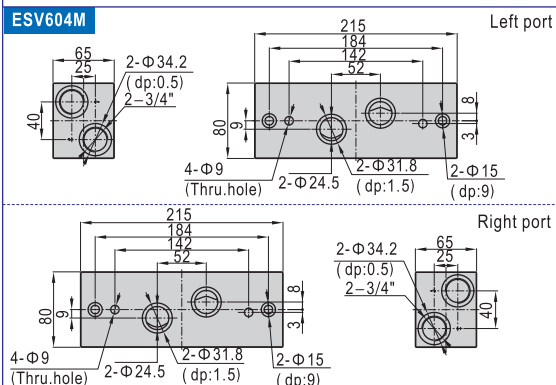
ESV602M



ESV603M

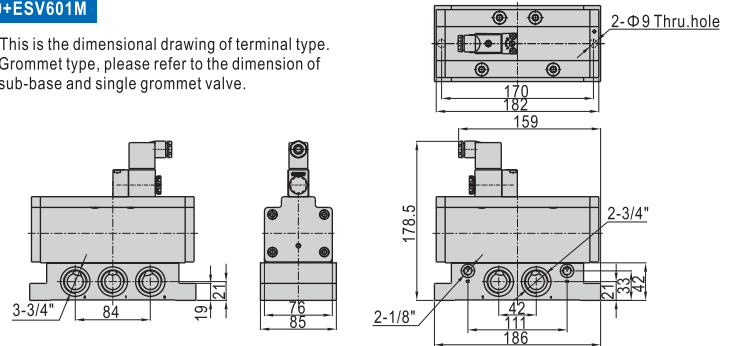


ESV604M



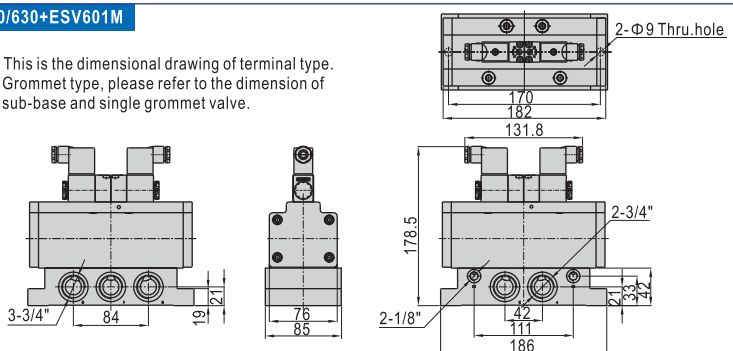
ESV610+ESV601M

Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.

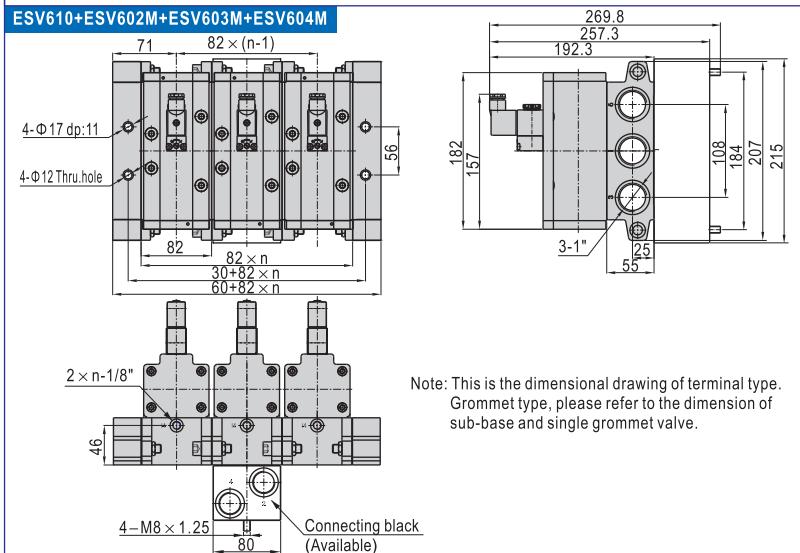


ESV620/630+ESV601M

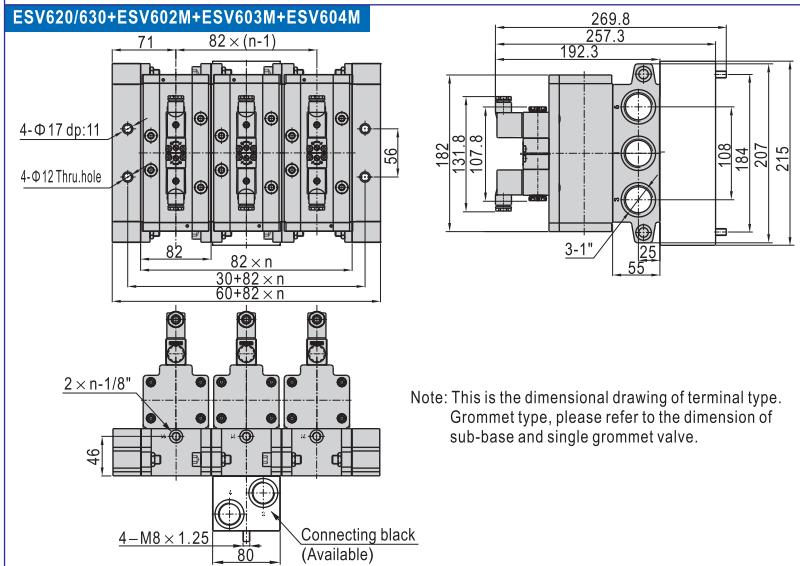
Note: This is the dimensional drawing of terminal type. Grommet type, please refer to the dimension of sub-base and single grommet valve.



ESV610+ESV602M+ESV603M+ESV604M



ESV620/630+ESV602M+ESV603M+ESV604M



Coil

080, 092 Series

AIRTAC

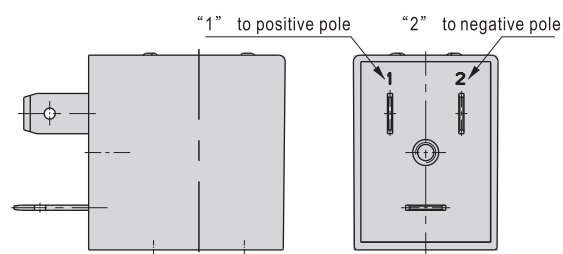


Ordering code

CD A080 A		
Coil type	CD: Terminal	Voltage
	CL: Grommet	
Coil's bore	A080: The first product of $\Phi 8.0\text{mm}$ bore)	
	A092: The first product of $\Phi 9.0\text{mm}$ bore)	

Attentions for block wiring

Coil terminal with DC specification has polar indicator lights, thus when wiring, notice positive and negative poles, "1" shall be connected to positive pole, "2" to negative pole. If the poles are connected inversely, the indicator lights will not shine but valve still actuates.



The coils and internal wiring drawing in connector and corresponding table of fitted products are provided for convenience of your selection.

080 Series

Production series	Coil type	Voltage	Coil inside connection diagram	Connector type	Connector inside connection diagram	Memo
3V100 Series 4V100 Series 4M100 Series	CDA080 Terminal	AC		PL1515T-P1	-	Applied to CDA080 AC、DC type coil
				PL1515T-P2		Applied to CDA080 AC type coil
	CDA080 Terminal	DC		PL1515T-P3		Applied to CDA080 DC type coil
	CLA080 Grommet	AC		-	-	-
	CLA080 Grommet	DC		-	-	-

092 Series

Production series	Coil type	Voltage	Coil inside connection diagram	Connector type	Connector inside connection diagram	Memo
3V1 Series 3V200 Series 3V300 Series 4V200 Series 4V300 Series 4V400 Series 4M200 Series 4M300 Series ESV200 Series ESV300 Series ESV400 Series ESV600 Series	CDA092 Terminal	AC		4V210-005-P1	-	Applied to CDA092 AC、DC type coil
				4V210-005-P2		Applied to CDA092 AC type coil
	CDA092 Terminal	DC		4V210-005-P3		Applied to CDA092 DC type coil
	CLA092 Grommet	AC		-	-	-
	CLA092 Grommet	DC		-	-	-