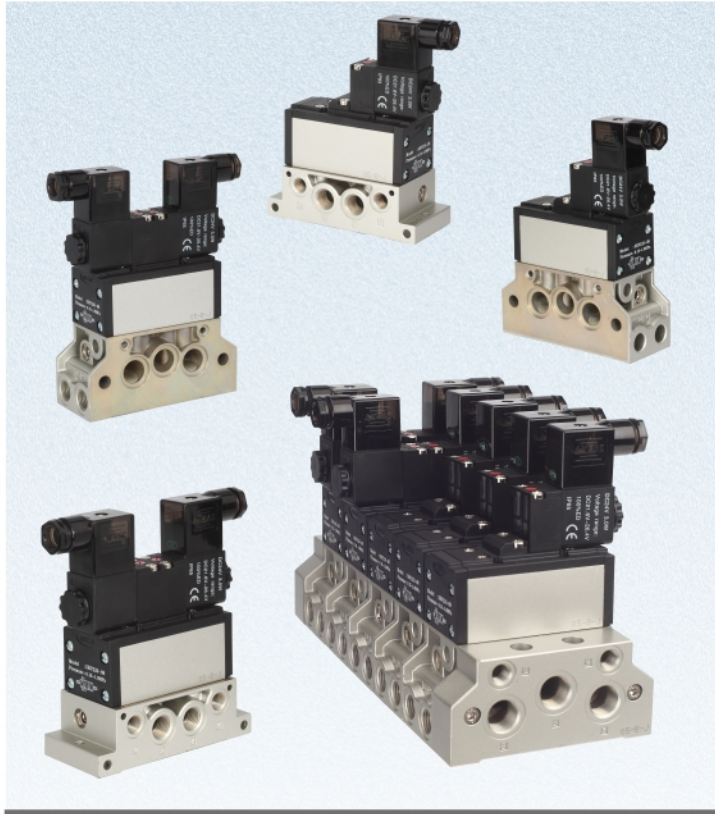


ISO standard solenoid valve

ESV200~400 Series



Product feature

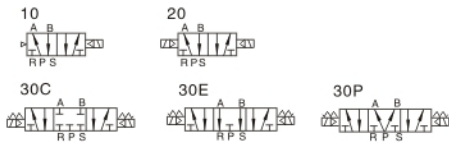
1. Succinct appearance and compact conformation.
2. The installation size is conforms to the ISO 5599/1 standard.
3. Because of the special seals, the feature are large flow rate and long lifetime.
4. You can adjust the installation direction of the pilot O-ring to change the acting type: internal pilot,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

Ordering code of valve

ESV	2	10	A		
Code					
	2: 200 Series				
	3: 300 Series				
	4: 400 Series				
Voltage					
	A: AC220V				
	B: DC24V				
	C: AC110V				
Electrical entry					
	Blank: Terminal				
					I: Grommet
					①
					Pilot type
					Blank: Internal pilot
					W: External pilot
					Valve type
					10: Single solenoid 5/2 way
					20: Double solenoid 5/2 way
					30C: Double solenoid 5/3 way closed center
					30E: Double solenoid 5/3 way exhaust center
					30P: Double solenoid 5/3 way pressure center

①Note: Internal guided mode can be interchanged with external guided mode, please adjust the installation method of the O-ring referring to article 1 or 2 in the installation manual.

Symbol



Specification

Item		Specification
Fluid		Air (to be filtered by 40μm filter element)
Acting		Internal pilot or external pilot
Lubrication		Not required
Pressure	Internal pilot	0.2~1.0MPa(2~10.0bar)(29~145psi)
	External pilot	0~1.0MPa(0~10.0bar)(0~145psi)
Control pressure (external pilot)		0.2~1.0MPa(2~10.0bar)(29~145psi)
Proof pressure		1.5MPa(15.0bar)(215psi)
Temperature		-20~70℃
Port size (manifold)		200 Series:1/4" ;300 Series:3/8" ;400 Series:1/2"
Port size (subassembly of plate)		200 Series:3/8" ;300 Series:1/2" ;400 Series:3/4"
Voltage range		AC: ±15% DC: ±10%
Power consumption		AC: 3.5VA DC: 3.0W
Activating time (0.5Mpa)	ESV200 Series	210、220 Series:33/41ms; 230 Series:38/50ms
	ESV300 Series	310、320 Series:42/55ms; 330 Series:50/62ms
	ESV400 Series	50/68ms
Insulation		Class B
Protection		IP65
Service life		30 million times above (normal use)
Installation size		ISO5599-1 standard

Ordering code of manifold

ESV	2	01M	G	<input type="checkbox"/>	<input type="checkbox"/>
	Code		Thread type		
	2: 200 Series		G: G		
	3: 300 Series				
	4: 400 Series				
Model					
ESV: ISO standard solenoid valve					
Valve type		External pilot port type	Port position type		
01M: Single manifold		Blank: Individual pilot port	Blank: Side port		
			B: Bottom port		
02M: Parallel manifold		Blank: Individual pilot port	Blank: Left side port		
		W: Centralized pilot port	R: Right side port		
			B: Bottom port		
03M: The subassembly of plate					

Note: 1. For the same model, the port size of plate is bigger than the manifold's (For example ESV202M, the port size of manifold is 1/4", and the subassembly of plate is 3/8").
2. The external pilot port for Single manifold is individual pilot port.
3. The subassembly of plate is applied with Parallel manifold, both for individual pilot type and centralized pilot type.

Ordering code of blanking plate

ESV 200M - B			
Model			
	ESV: ISO standard solenoid valve		
	Code		
	200M: 200 Series manifold		
	300M: 300 Series manifold		
	400M: 400 Series manifold		
Blanking plate		B: Blanking plate	

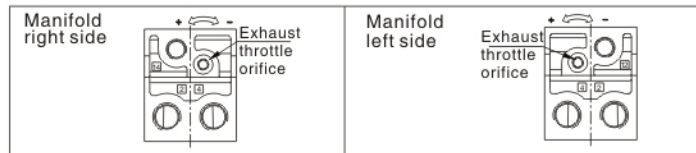
ISO standard solenoid valve

ESV200~400 Series

■ Installation and operation

1、Exhaust throttle function

- 1.1 The manifold have exhaust throttle function, as the below picture shows the position of the exhaust throttle orifices on each side.
- 1.2 Use inner hexagon spanner to adjust the screw.
- 1.3 Rotate the screw clockwise to reduce the exhaust orifice, rotate the screw counter-clockwise to enlarge the exhaust orifice.

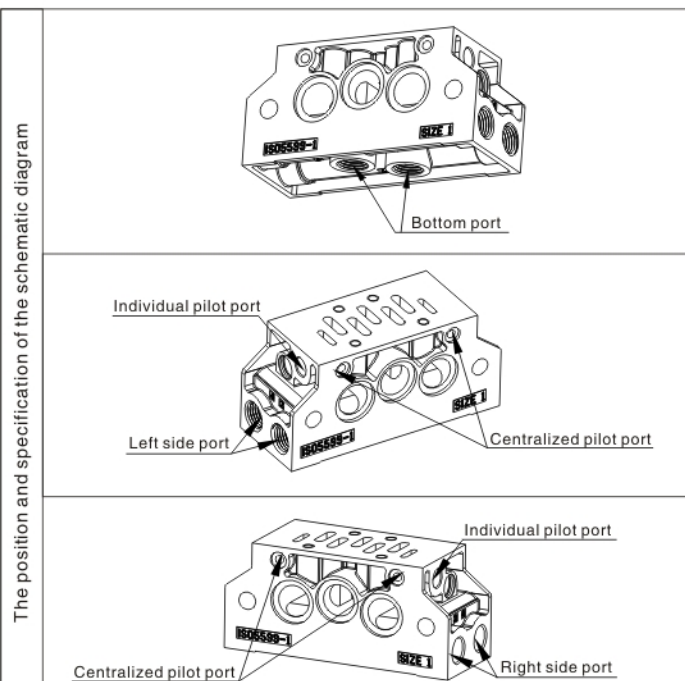


2、The classification and selection for the parallel manifolds

- 2.1、According to the direction of air supply, we can divide the parallel manifold 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 parallel manifolds ports



Corresponding tables the ordering code of the parallel manifolds

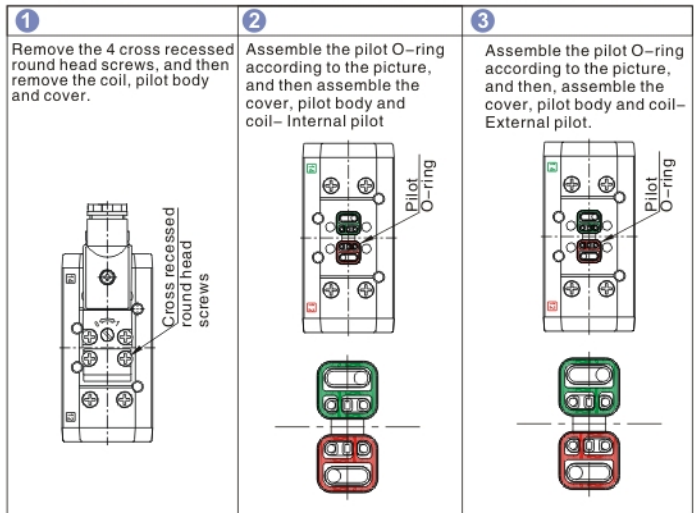
Port working condition	Port name				
	Left side port	Right side port	Bottom port	Centralized pilot port	Individual pilot port
Ordering code					
ESV202M	Use	Unused	Unused	Unused	Use
ESV202MR	Unused	Use	Unused	Unused	Use
ESV202MB	Unused	Unused	Use	Unused	Use
ESV202MW	Use	Unused	Unused	Use	Unused
ESV202MWR	Unused	Use	Unused	Use	Unused
ESV202MWB	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 regulation, only need to change the series code.

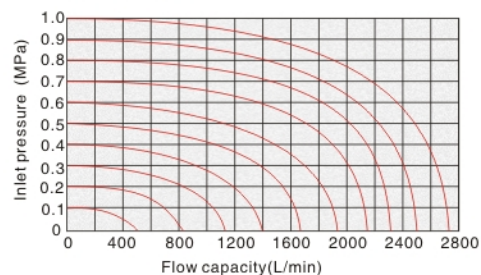
4、The classification and selection for the pilot type of valve

- 4.1 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.
- 4.2 You can convert from internal pilot to external pilot by the following methods.

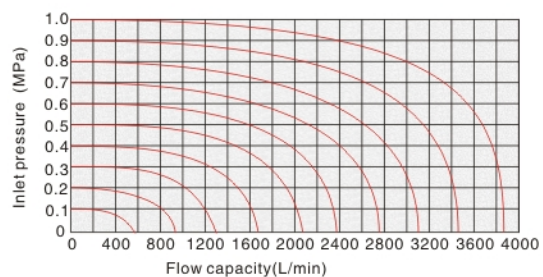


■ Flow chart

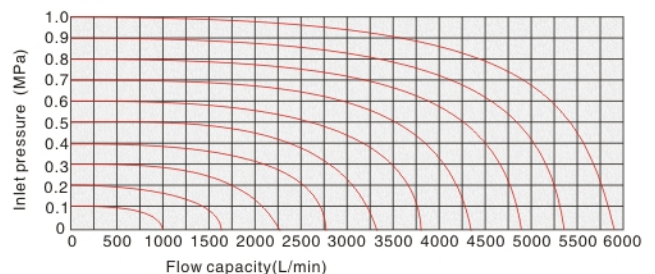
Model: ESV210



Model: ESV310



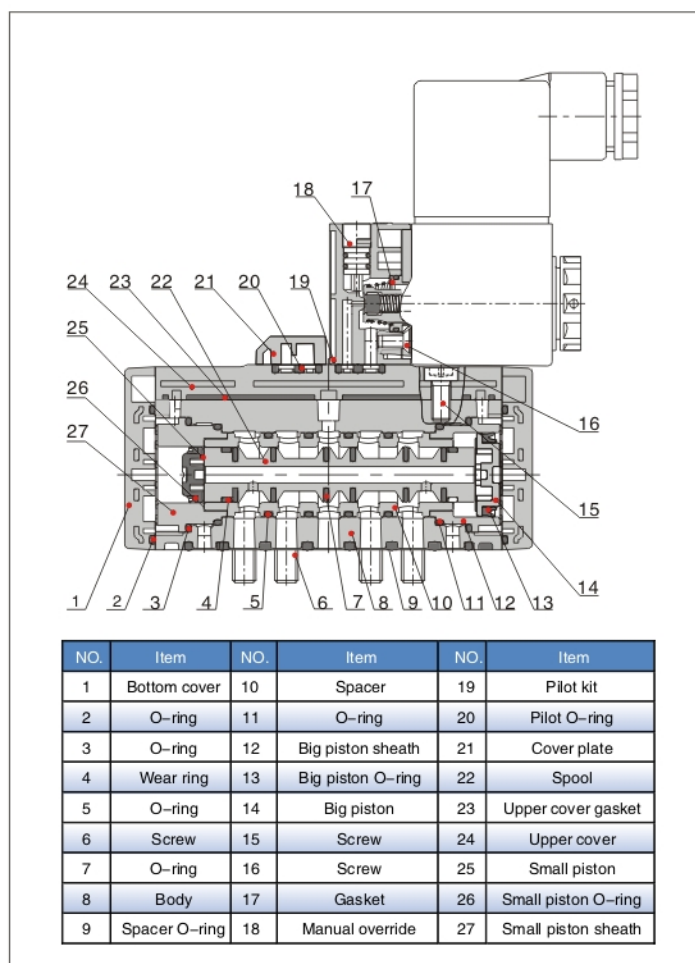
Model: ESV410



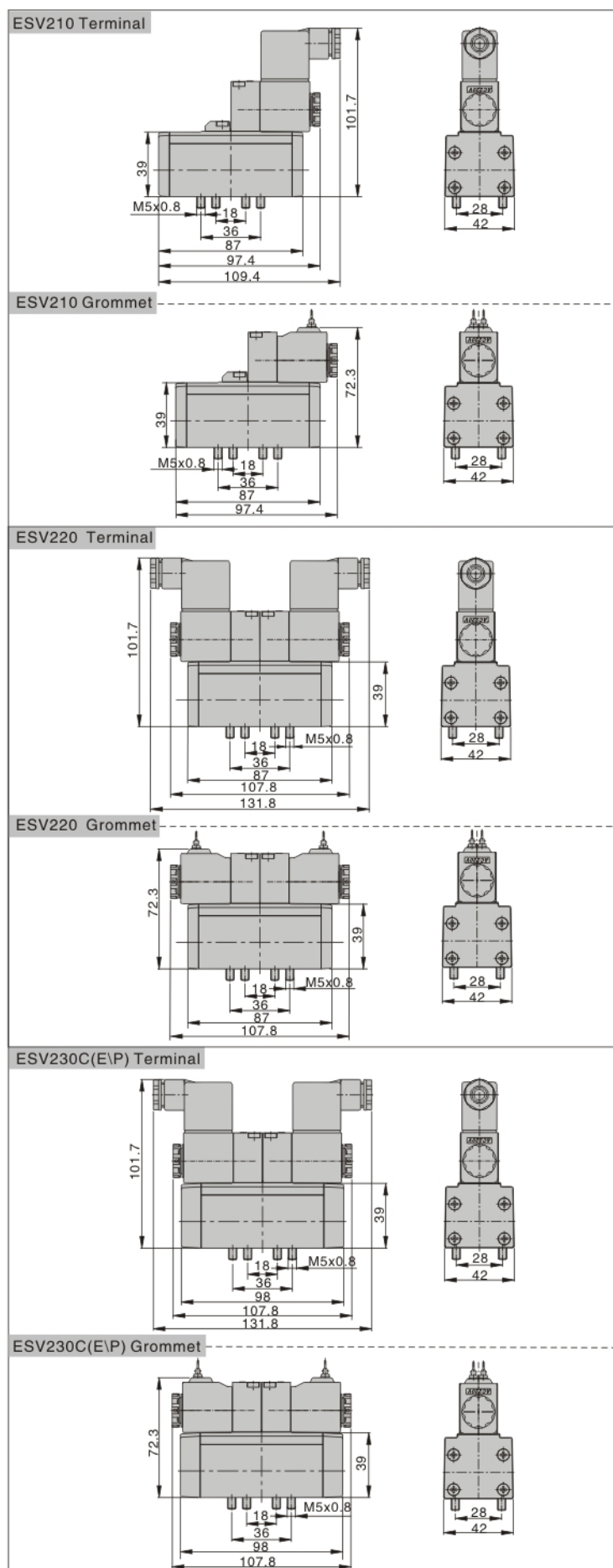
ISO standard solenoid valve

ESV200~400 Series

Inner structure

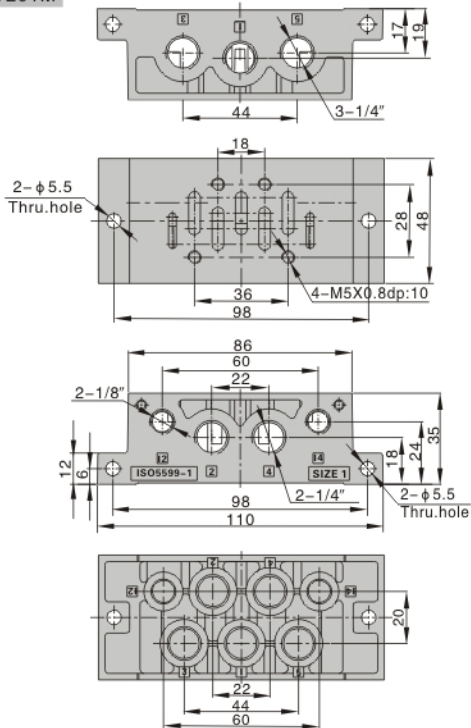


Dimensions(ESV200 Series)

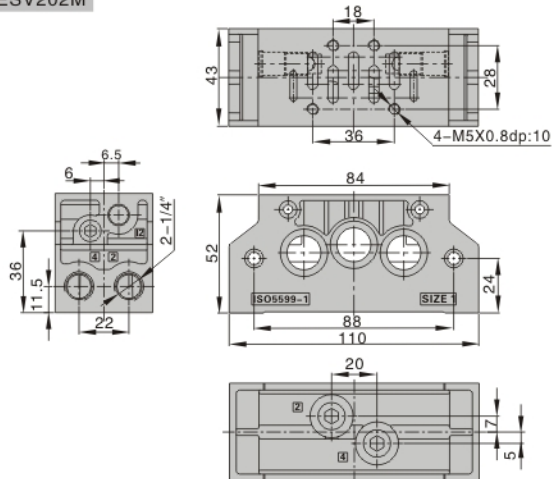


ESV200~400 Series

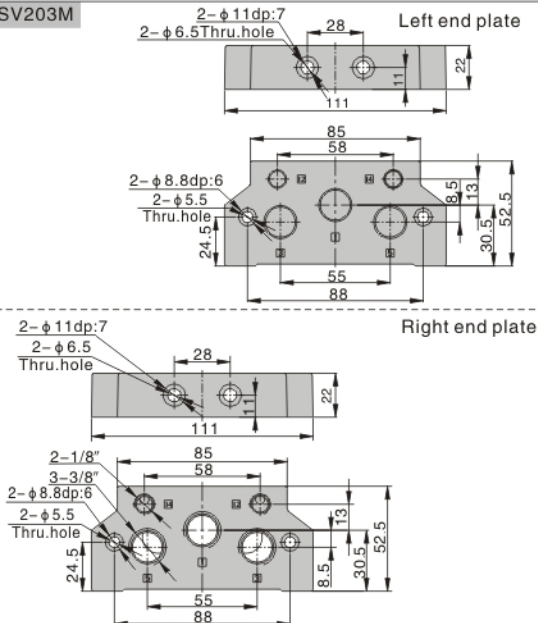
ESV201M



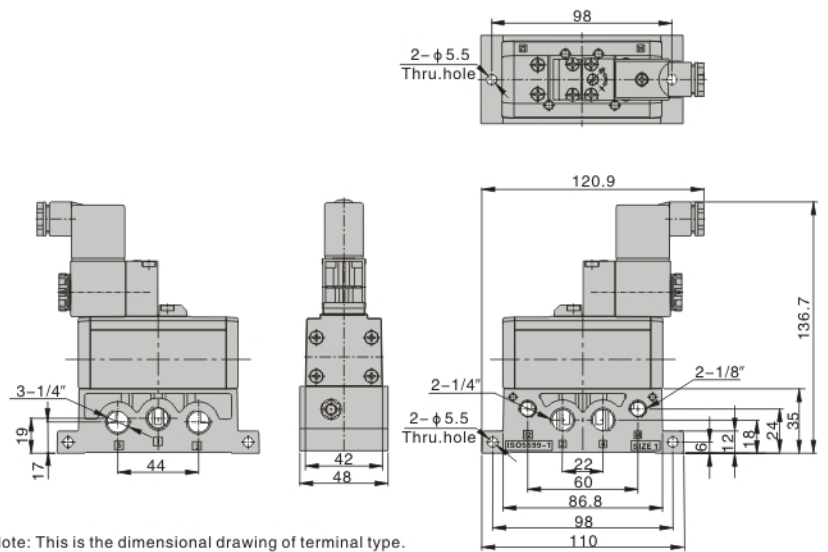
ESV202M



ESV203M

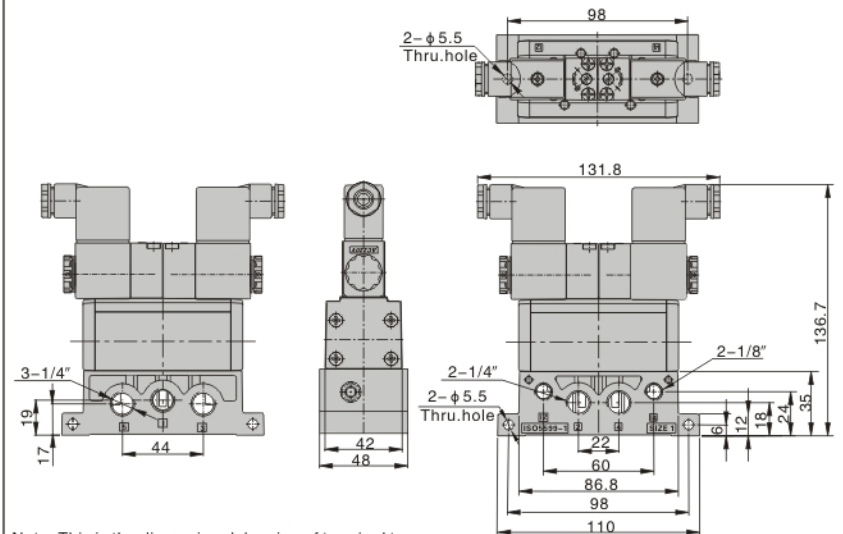


ESV210+ESV201M



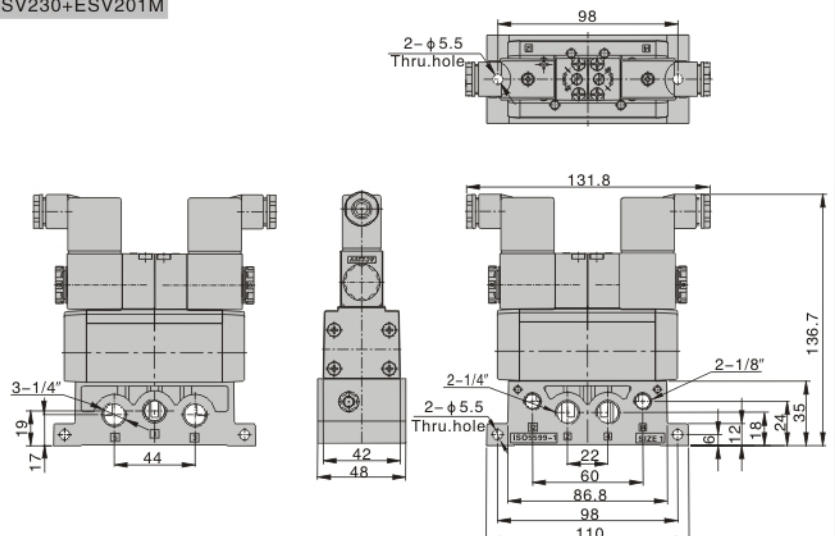
Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

ESV220+ESV201M



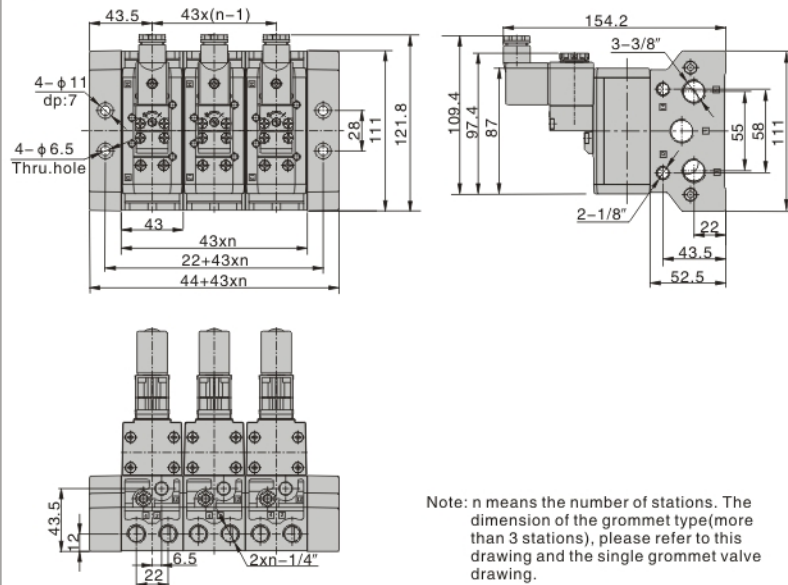
Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

ESV230+ESV201M

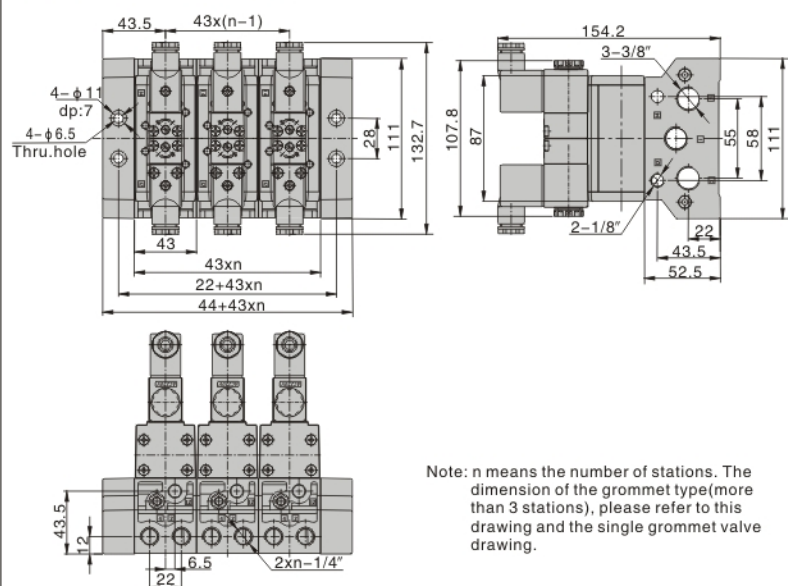


Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

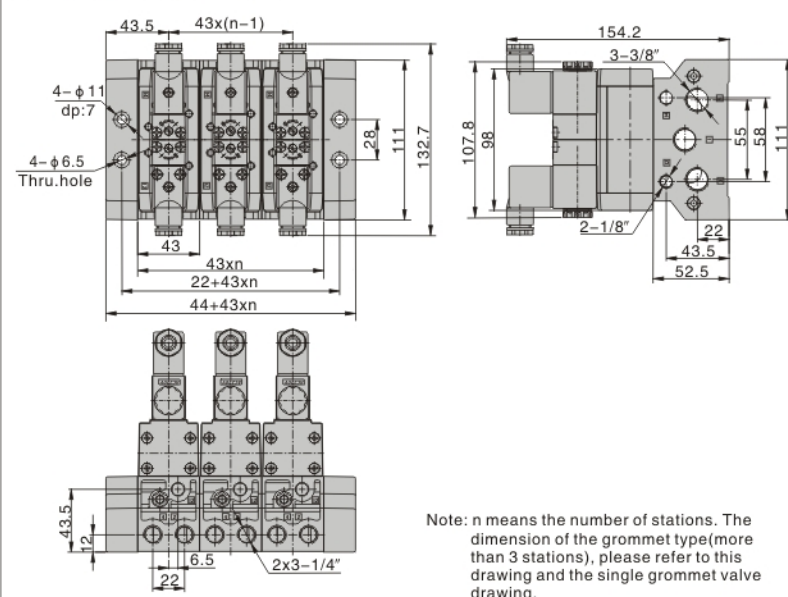
ESV210+ESV202M+ESV203M



ESV220+ESV202M+ESV203M

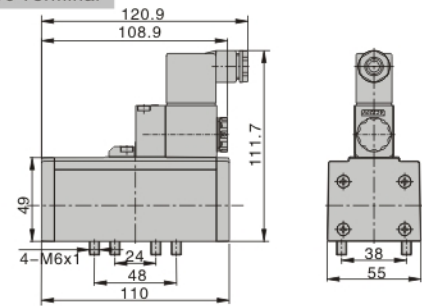


ESV230+ESV202M+ESV203M

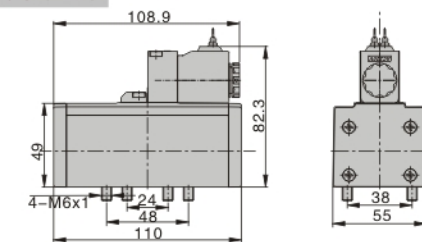


■ Dimensions (ESV300 Series)

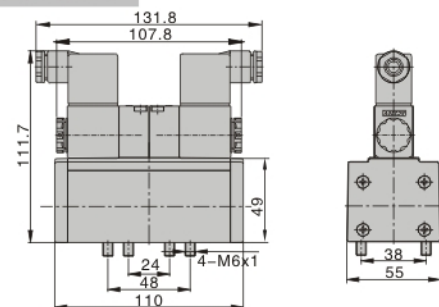
ESV310 Terminal



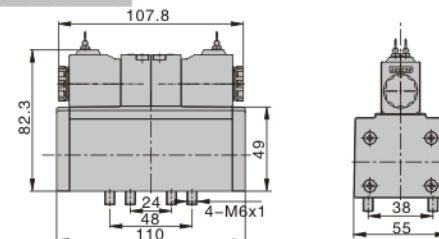
ESV310 Grommet



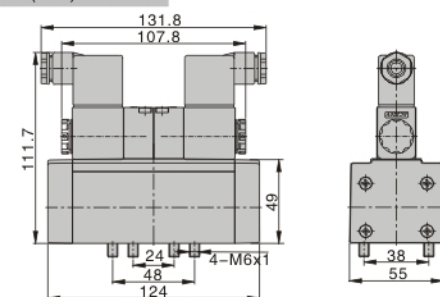
ESV320 Terminal



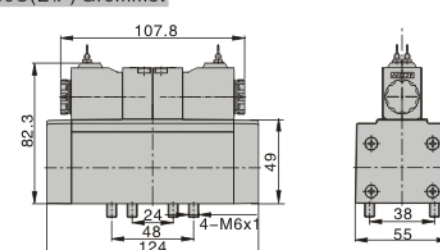
ESV320 Grommet



ESV330C(E/P) Terminal



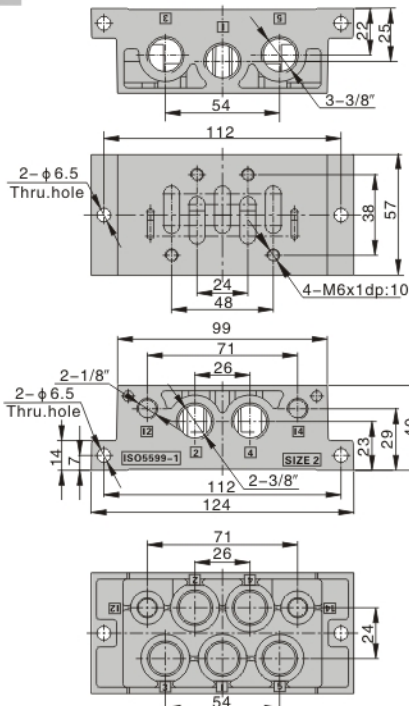
ESV330C(E/P) Grommet



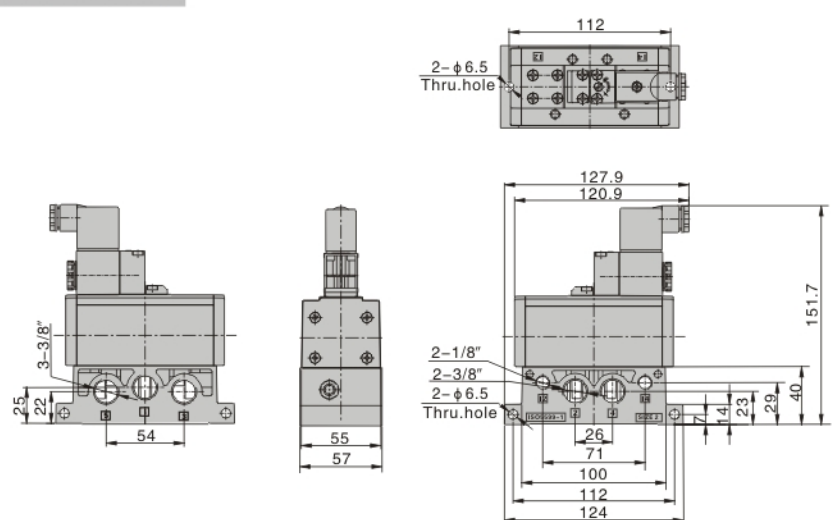
ISO standard solenoid valve

ESV200~400 Series

ESV301M

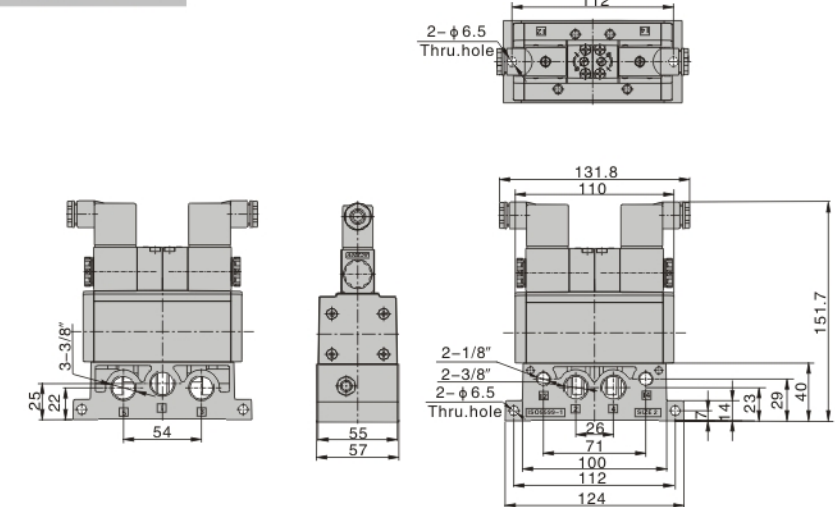


ESV310+ESV301M



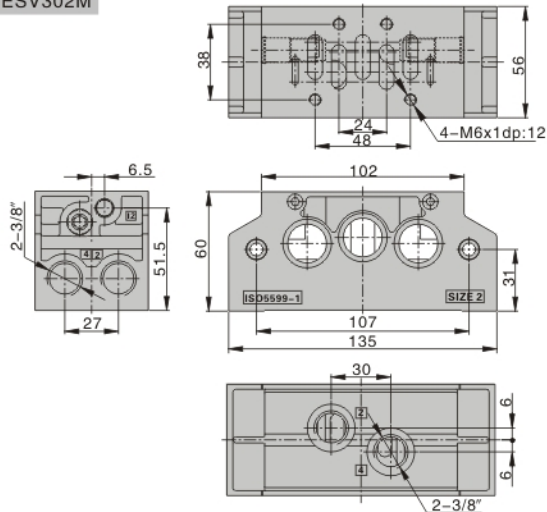
Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

ESV320+ESV301M

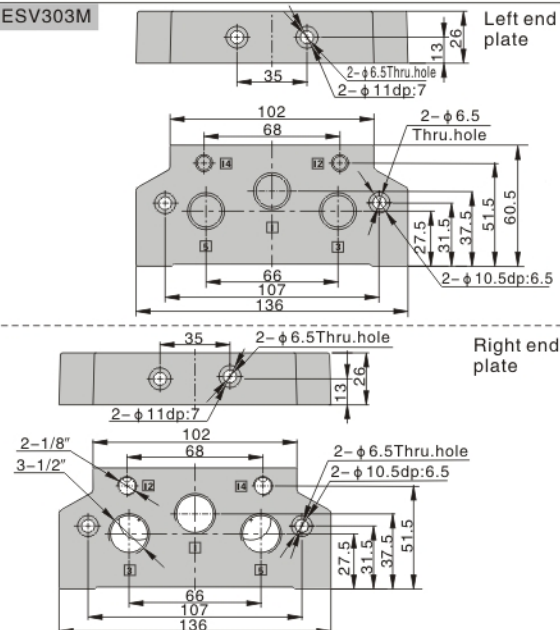


Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

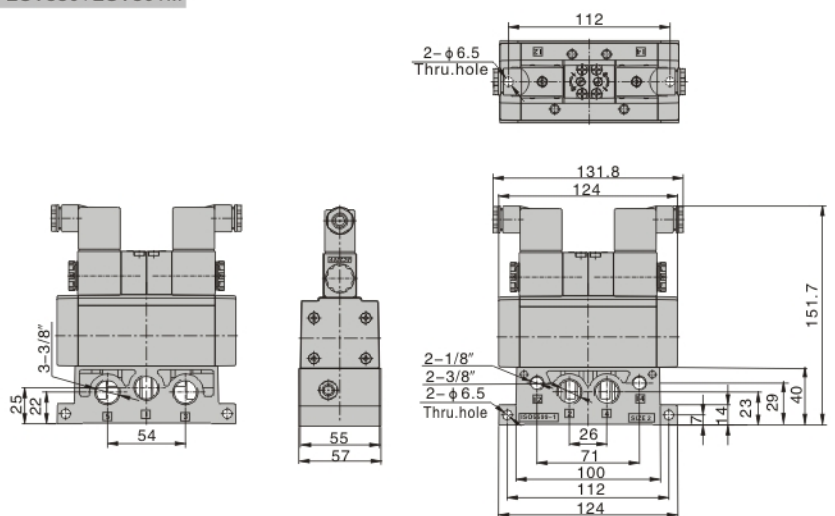
ESV302M



ESV303M



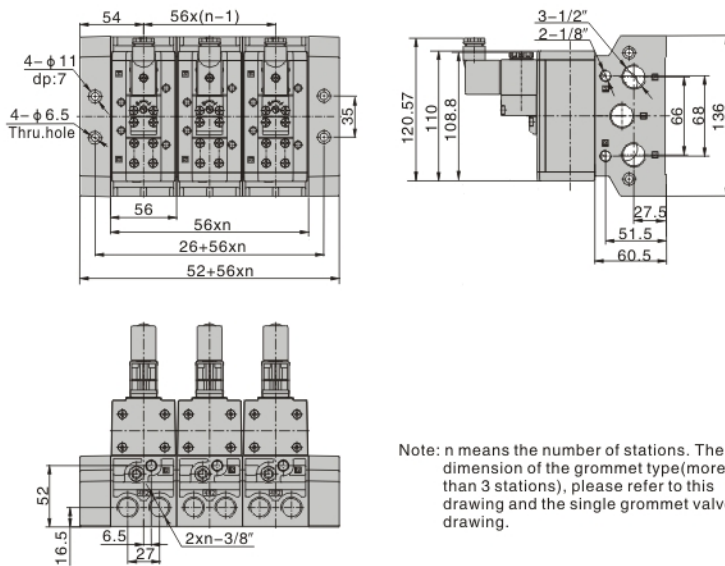
ESV330+ESV301M



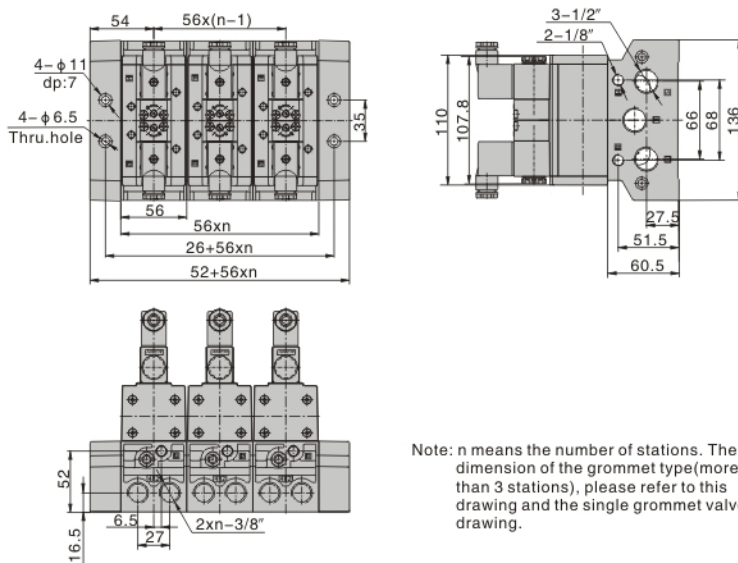
Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

ESV200~400 Series

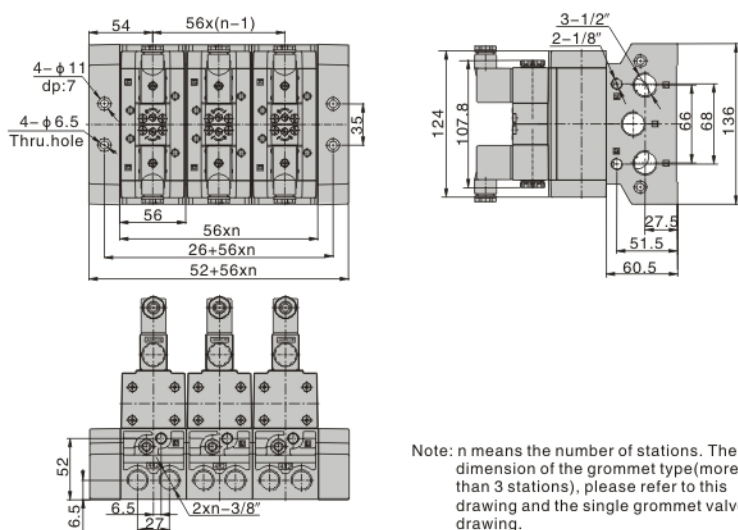
ESV310+ESV302M+ESV303M



ESV320+ESV302M+ESV303M

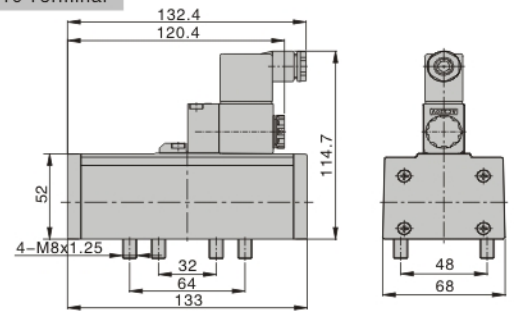


ESV330+ESV302M+ESV303M

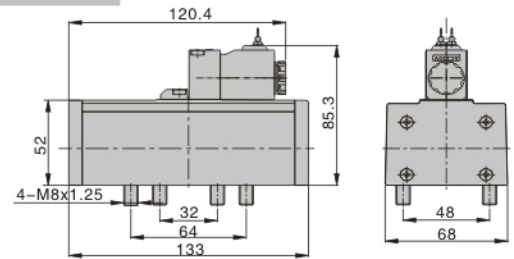


■ Dimensions (ESV400 Series)

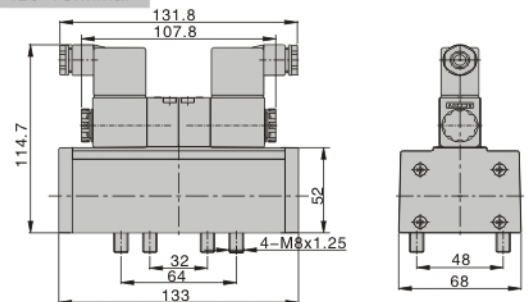
ESV410 Terminal



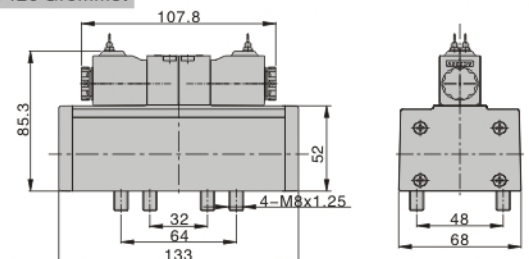
ESV410 Grommet



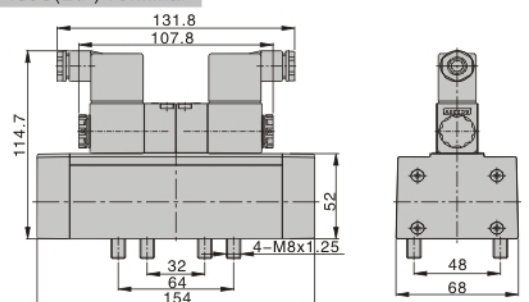
ESV420 Terminal



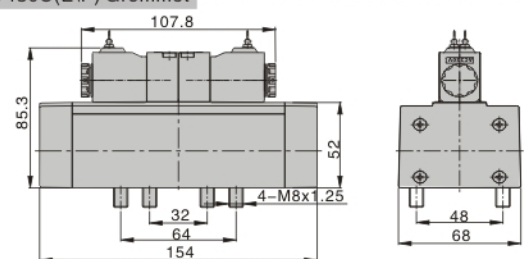
ESV420 Grommet



ESV430C(E/P) Terminal



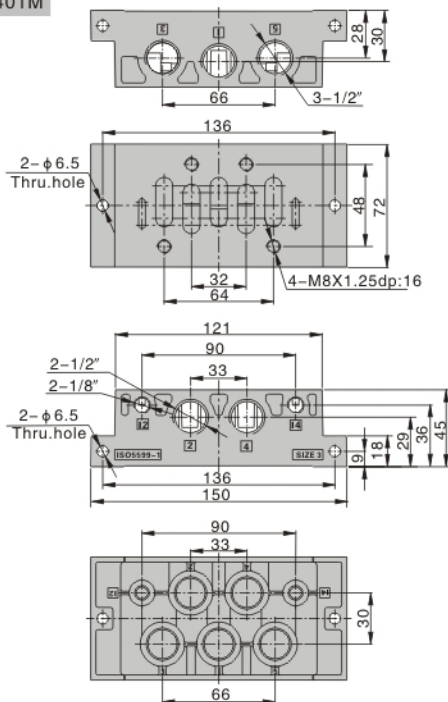
ESV430C(E/P) Grommet



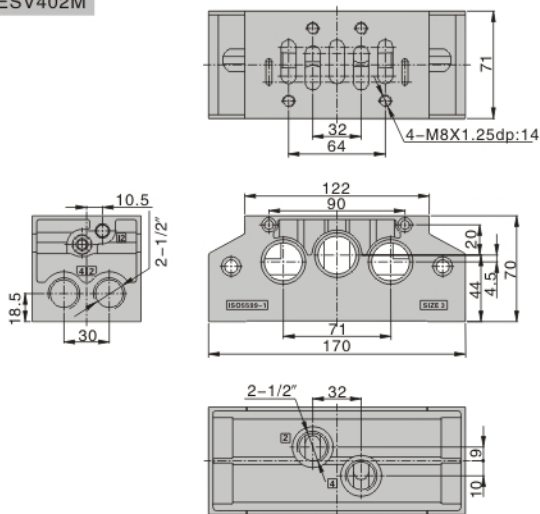
ISO standard solenoid valve

ESV200~400 Series

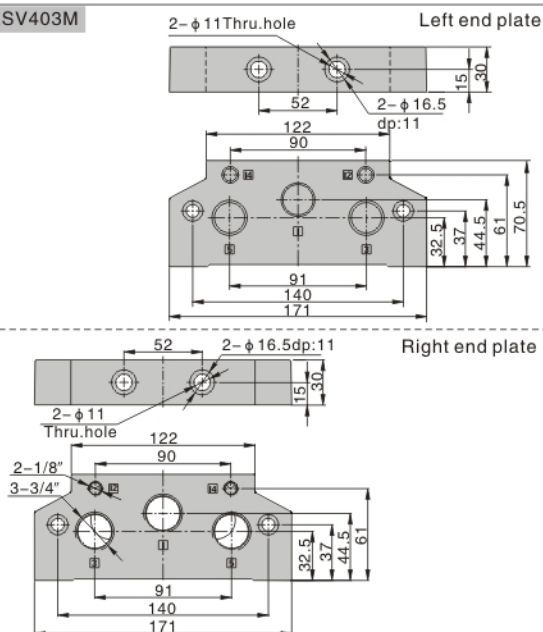
ESV401M



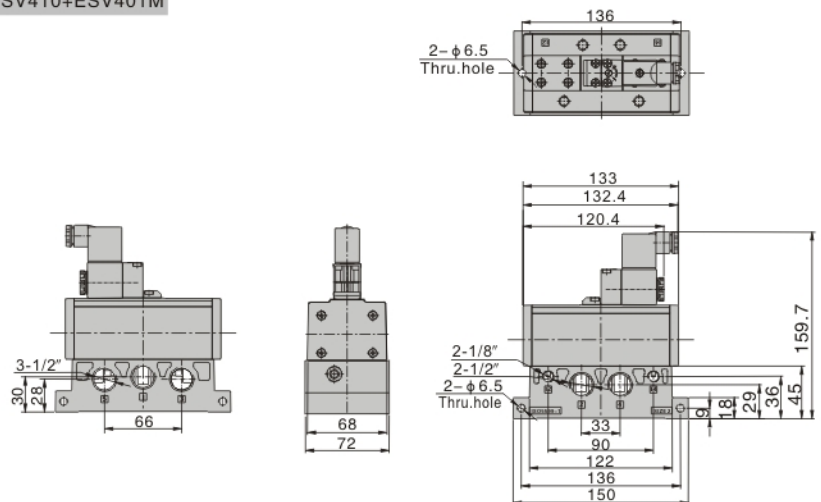
ESV402M



ESV403M

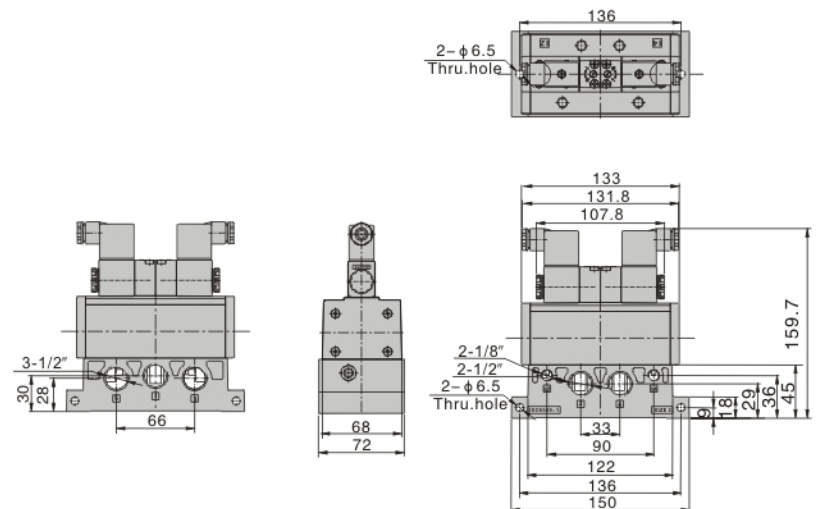


ESV410+ESV401M



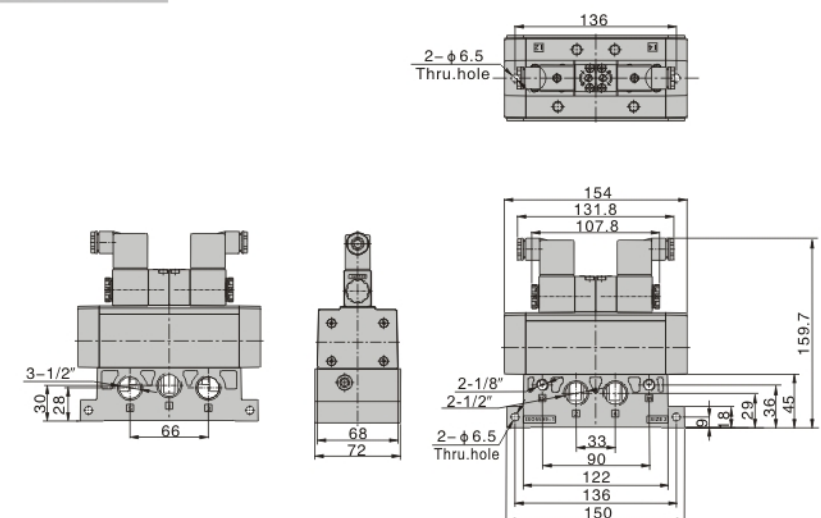
Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

ESV420+ESV401M



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

ESV430+ESV401M

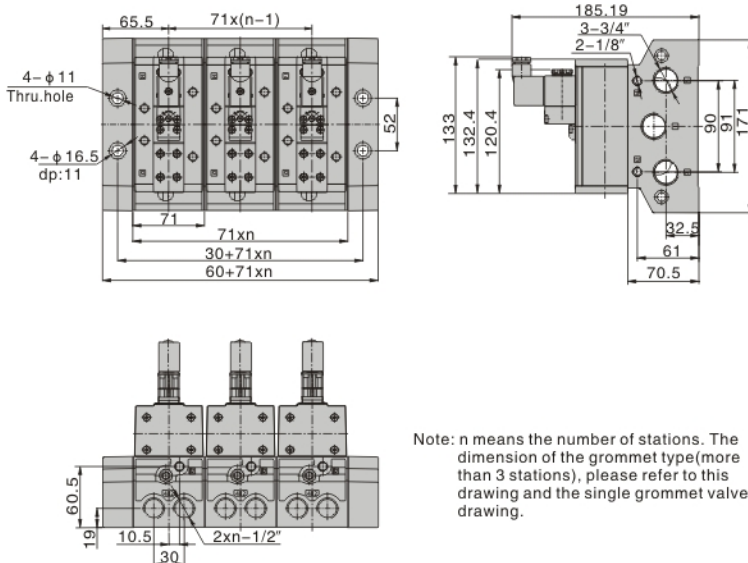


Note: This is the dimensional drawing of terminal type.
Grommet type, please refer to the dimension of manifold and single grommet valve.

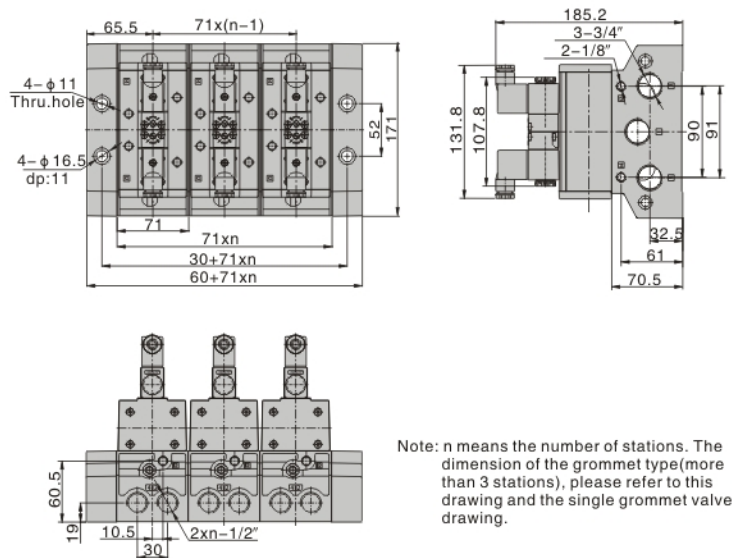
ISO standard solenoid valve

ESV200~400 Series

ESV410+ESV402M+ESV403M



ESV420+ESV402M+ESV403M



ESV430+ESV402M+ESV403M

