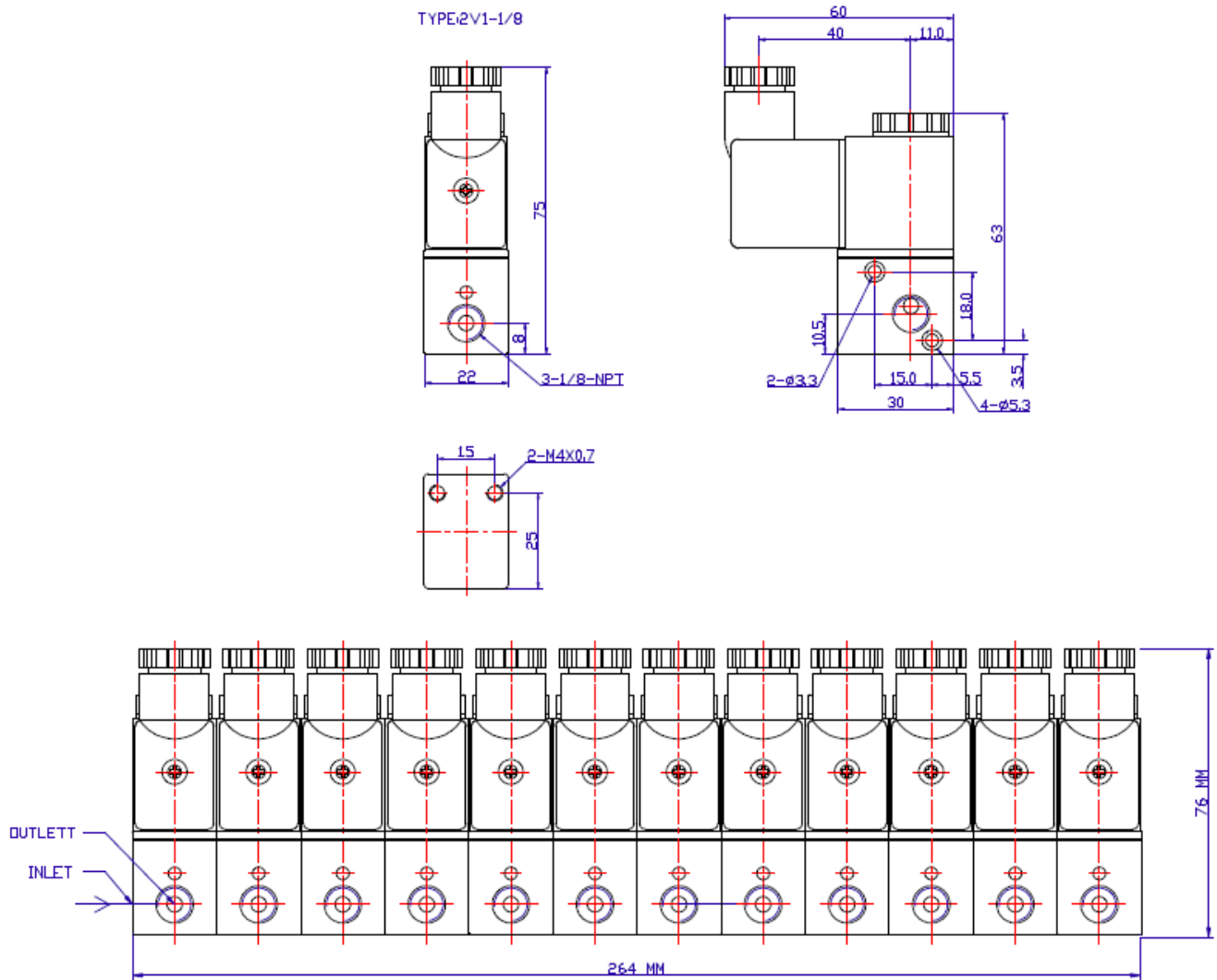


# 2V1-3V1 SERIES SOLENOID VALVE



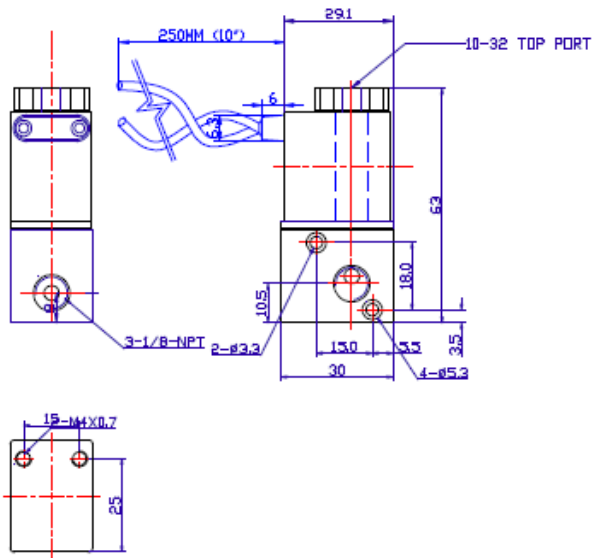
Valve Model	2V1	3V1
Port & Mounting	Body Ported, Stacking	
Action & Motion	Single Solenoid, Direct Acting, 2Way (2V1), 3Way (3V1), Response Time <20ms	
Operating Pressure	0 to 115 PSI	
Port Sizes	1/8 NPT	
Operating Temp.	14 to 140 °F	
C <sub>v</sub>	0.23	0.05
SFCM @ 100PSI	22	5
Manual Override	None	
Electrical Connection	Grommet, DIN	
Working Medium	40 micron filtered air or inert gas	
Coil Insulation & Protection Class	IP 65, Class F	
Coil Duty Cycle	100% ED	
Coil Voltage Options	Options: 12, 24 VDC; 24, 110/120, 220/240 VAC (50/60Hz)	
Coil Power	40 PSI: 3W, 60 PSI: 4.8W, 115 PSI: 6.5W	
Valve Body Material	Anodized Aluminum	
Seal Material	NBR (Buna N)	
Lubrication	Not Required	

## 2V1-3V1 SERIES SOLENOID VALVE DIMENSIONS

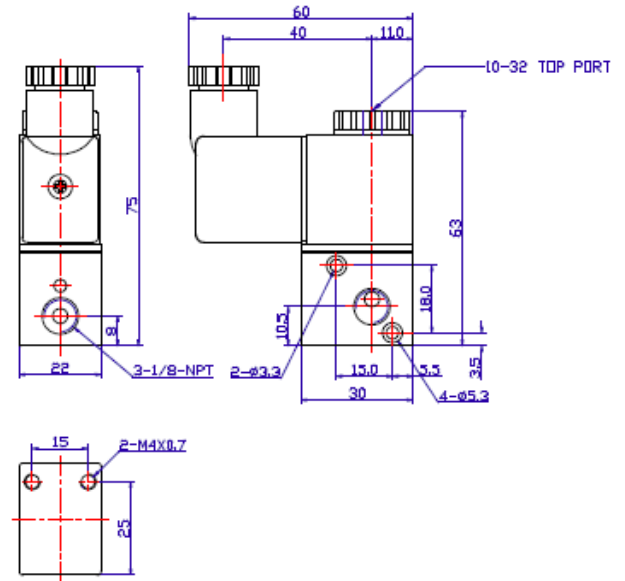


## 2V1-3V1 SERIES SOLENOID VALVE DIMENSIONS

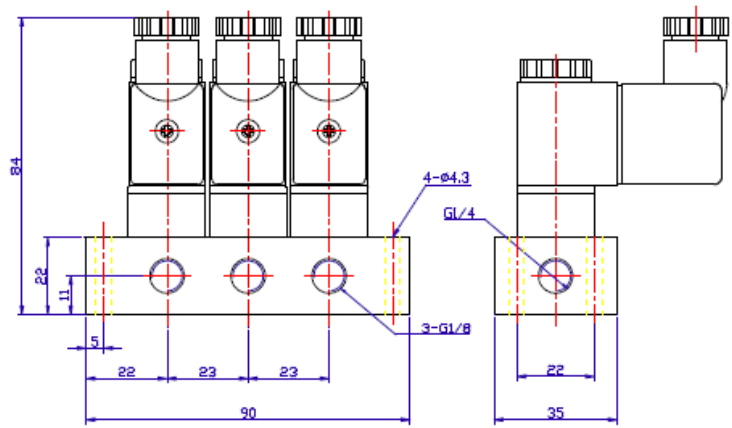
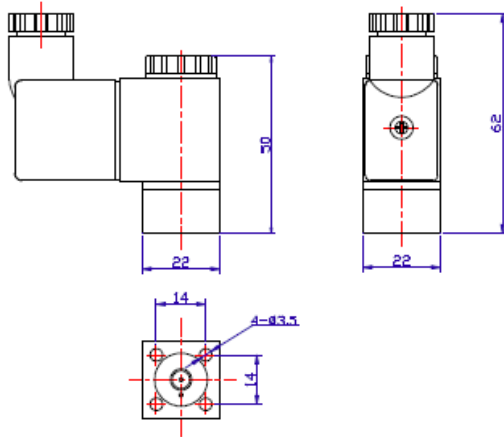
MODEL 3V1-1/8 (GROMMET COIL, UNIT MM)



MODEL 3V1-1/8 (DIN COIL, UNIT MM)



TYPE 3V1-06B



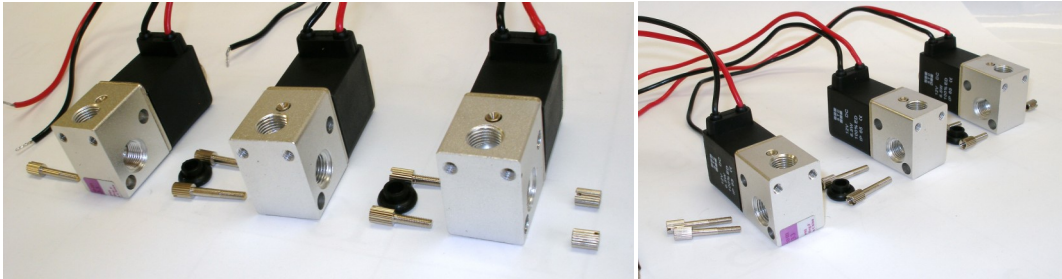
## 2V1 and 3V1 Assembly

Assembling 2V1 and 3V1 valves will allow for individual control over multiple outlets with a single source, or allow for multiple sources to individually flow into a common outlet.

When all solenoids are inactive, there is flow straight through the connected inlets/default outlet of the valves. At the same time, for models 3V1 in the assembly, there is flow between the active outlet and the exhaust. For 2V1 models, the active outlet remains closed.

When the solenoid on one of the valves is active, the inlet/default outlet and the active outlet are connected, and the

### Reference Figures:



**Figure 1:** Parts of a 2V1 and 3V1 assembly. When connected, air flows through the inlets/default outlets, which are the horizontally oriented ports in this picture. The vertically oriented ports in the 3V1 valves are connected to the exhaust, which is above the black solenoid coils.



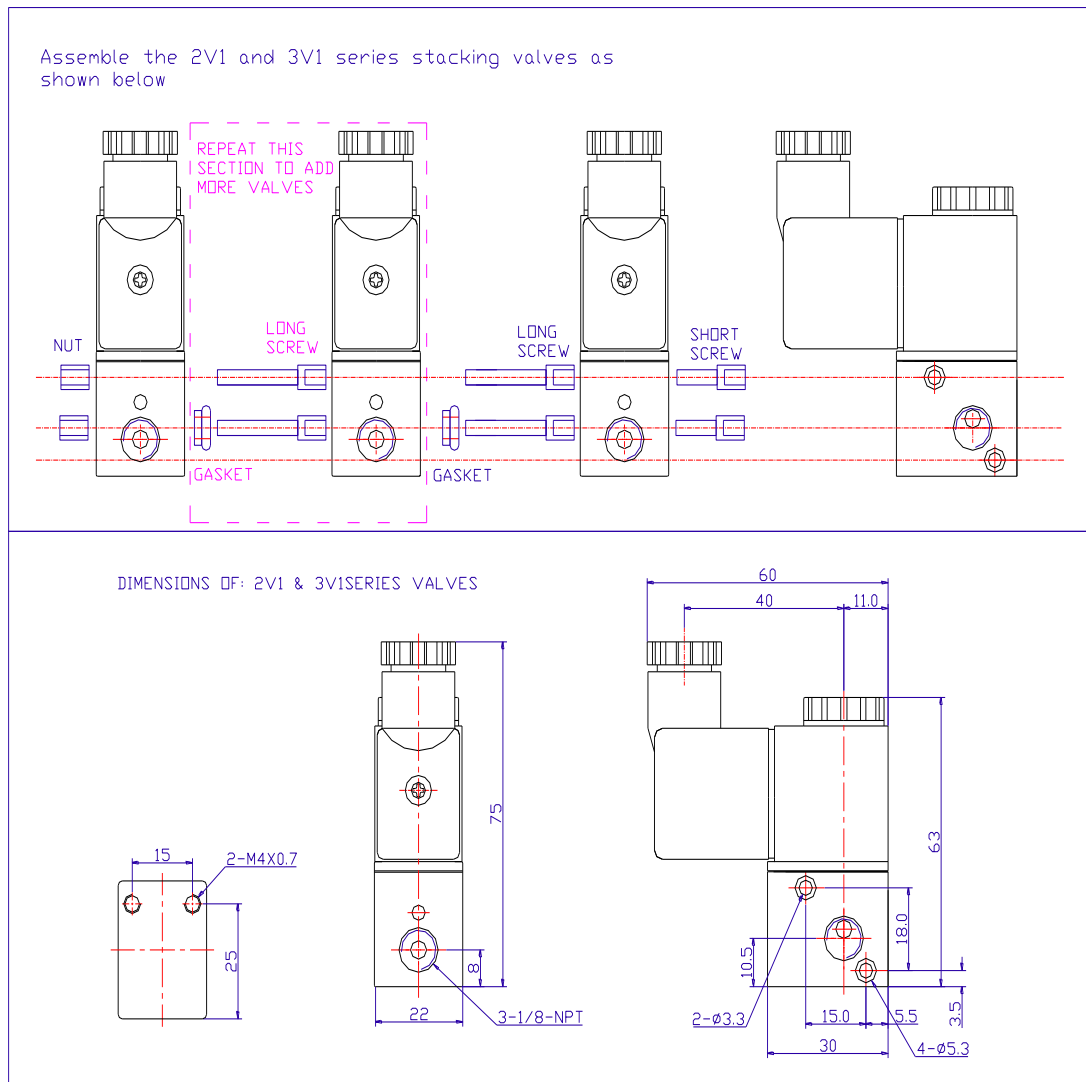
**Figure 2:** 2V1 and 3V1 fully assembled. The right port is the default inlet/outlet, and the three ports to the left are the active inlets/outlets. Exhaust ports are on the top of the assembly.

**Figure 3:** Default inlet/outlets on the side of the assembly.



## Assembly of 2V1 and 3V1 Solenoid Valves

Installation of direct acting 2 way and 3 way solenoid valves:  
Connect the inlet and out as shown in the diagram.



# CONNECTION 2V025–035, 2V1, 3V1 Solenoid Coils

## Electrical Connections

### To connect DIN coil:

1. Remove the Philip screw from the plastic housing and unplug it from the DIN coil.
2. From the screw opening, use the screw to push the terminal block out of the plastic housing.
3. Note the 1, 2 and ground markings on underside of DIN enclosure.
4. For DC DIN Coil, Connect 1 to Positive, 2 to Negative.
5. For AC DIN Coil, connect 1 to HOT wire, 2 to Neutral wire, and if required connect ground to ground wire.

### To connect Grommet coil:

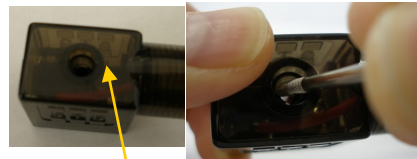
1. For DC Coil, connect the RED wire to Positive, and the BLACK wire to Negative.
- 2.. For AC Coil, connect the BLACK wire to HOT wire, and the WHITE wire to neutral wire.

**Do not energize the coil without installing it onto the valve, it will burn the coil and create fire hazards.**

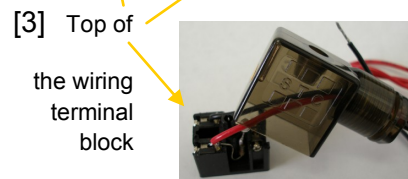
[1] Remove the Philip screw from the plastic housing.



[2] Unplug the plastic housing from the DIN coil.



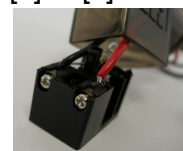
[3] From the screw opening, use the screw to push the terminal block out of the plastic housing.



[4] Note the 1, 2, and ground markings on underside of DIN enclosure.

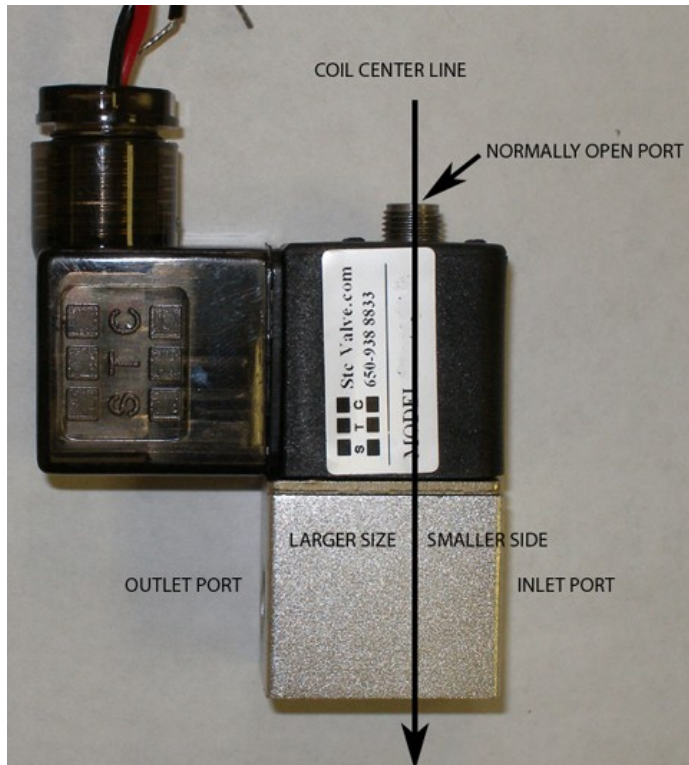
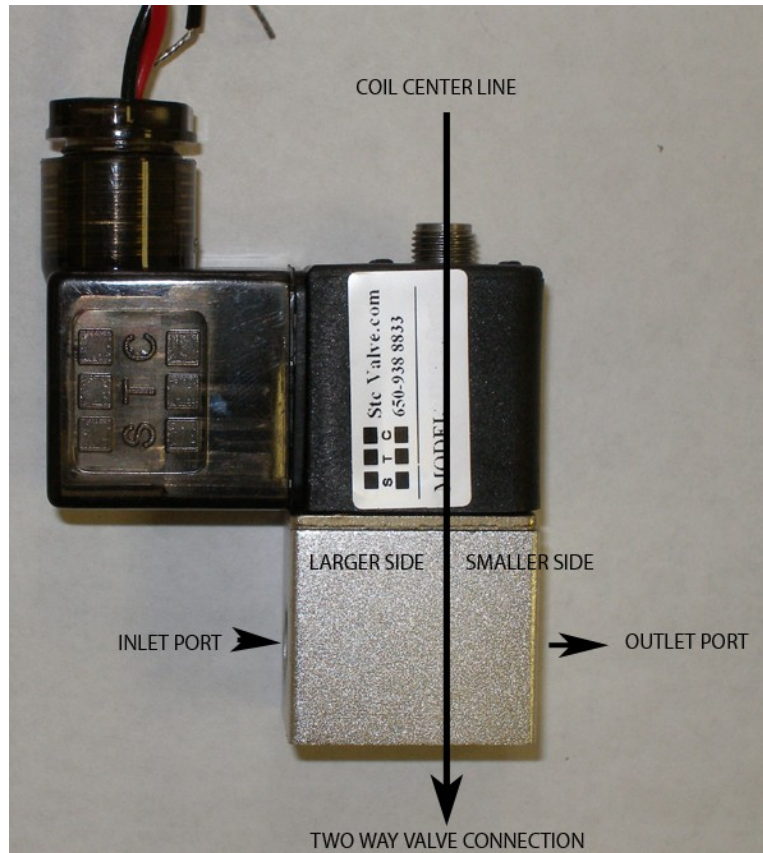


[5] & [6]

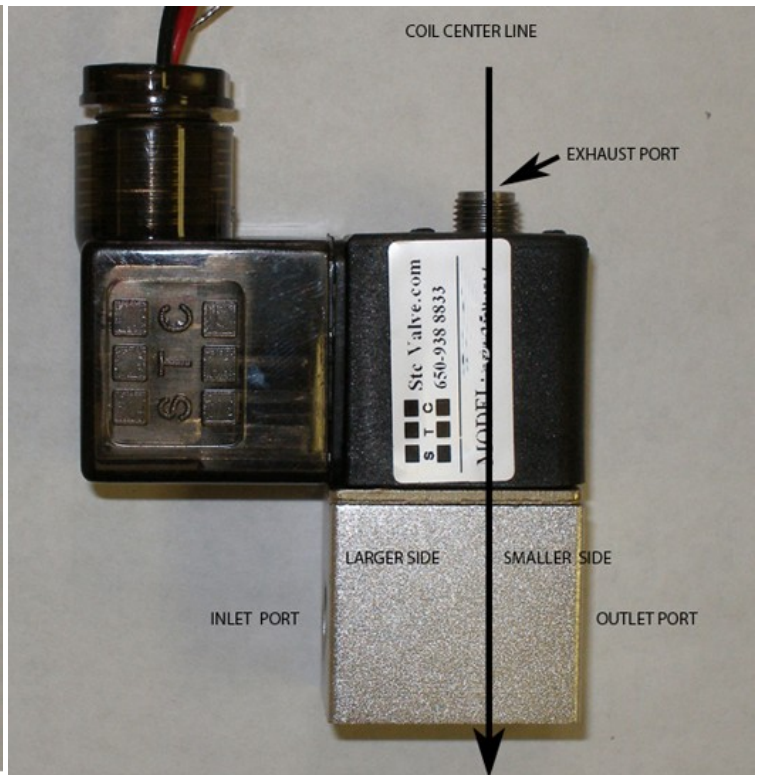




# Connection of 2V025-035, 2V1, 3V1 Solenoid Valves



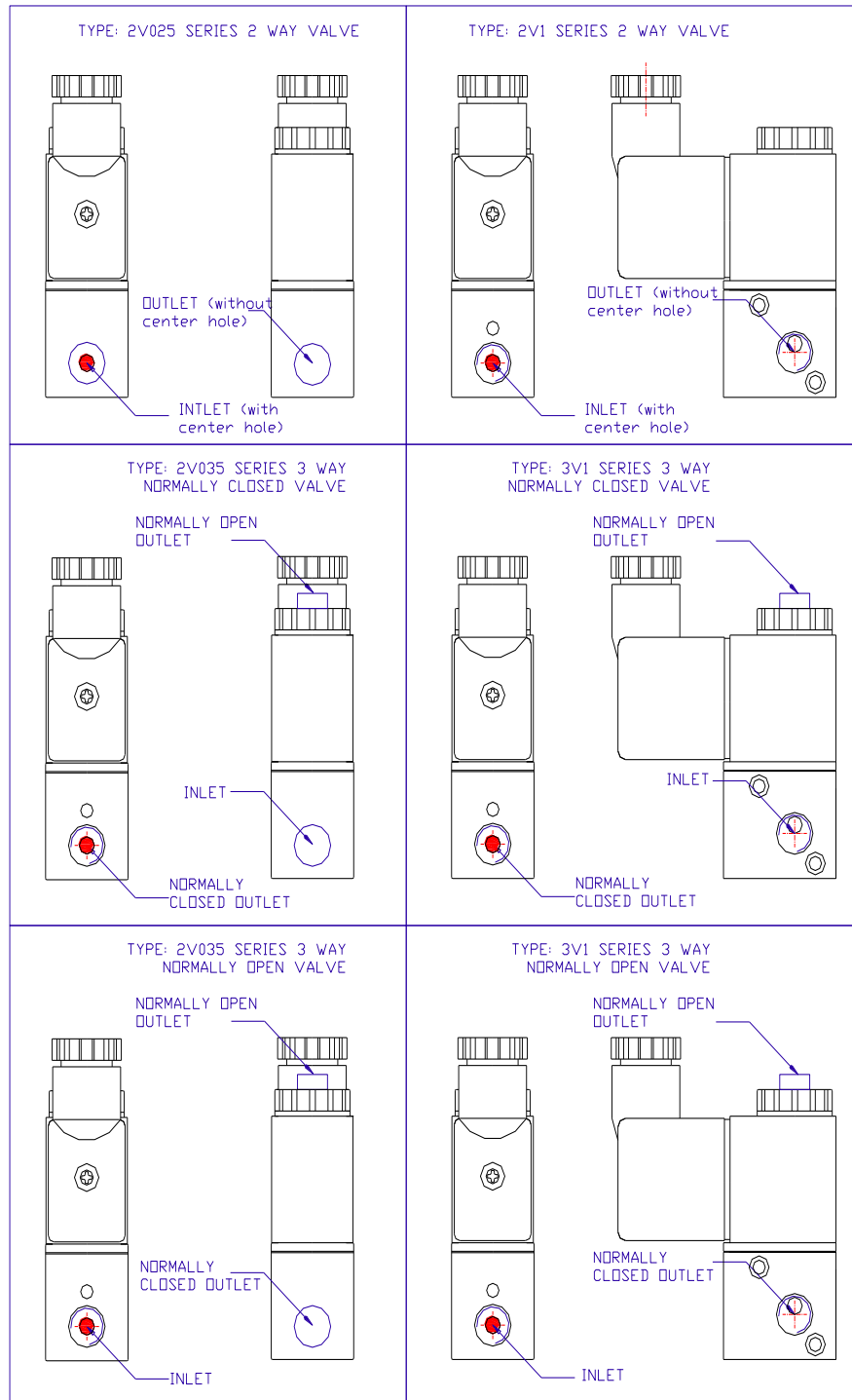
THREE WAY NORMALLY CLOSED CONNECTION



THREE WAY NORMALLY OPEN CONNECTION

# CONNECTION 2V025–035, 2V1, 3V1 Solenoid Valves

Installation of direct acting 2 way and 3 way solenoid valves:  
Connect the inlet and out as shown in the diagram.





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