

## INSTRUCTION MANUAL

Pilot Type

PVS—15A~80A—210

- Please read this instruction manual carefully before using this product, particularly the section describing safety.
- Retain this instruction manual with the product for further consultation whenever necessary.

## FOR SAFETY USE

The Product is to be used by those who has a basic knowledge about material, fluid, piping electricity regarding Control Valves (solenoid valves, motor valves, air operated valves and so on).

Never use this Product by those who have no knowledge or are not well trained about Control Valves.

Should be any trouble or accident caused by a wrong selection and/or wrong use of the Product even by a person of basic knowledge about Control Valves, we are not responsible therefore.

Since any customer of the Product have a variety of its application, we are not in a position to get all the information on how and where the Product is used. There may be the cases where that the Product may not meet customers' requirement or may cause any trouble or accident, by fluid, piping or other condition that are not within the specifications of the Product. Under such a circumstance, select with their responsibility the most suitable application and use of the Product according to the customers' requirements.

The Product incorporates a various safety arrangement, however miss-handling of the product may lead to any trouble or accident on customers side. **To avoid any possibility of trouble, read this INSTRUCTION MANUAL carefully and understand it fully.**

Pay your attention to the items described in this Text, as well as the items indicated below.



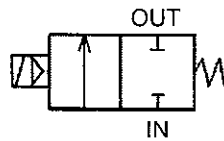
### CAUTIONS

- When energized, heat is generated at coil portion of solenoid valves and motor valves particularly "Class H" coil where may have high temperature.
- There may have electric shock when wire connecting portion of solenoid valves or motor valves are touched. In case of disassembly or inspection, turn off power supply beforehand. Do not touch live portion by wet hands.
- Make piping so as not to have leakage and check for no leakage before use, because in case of control valves for high temperature fluid like steam, leakage may cause heat injury.

## SOLENOID VALVE

Pilot operated 2 ports – 2 position valve

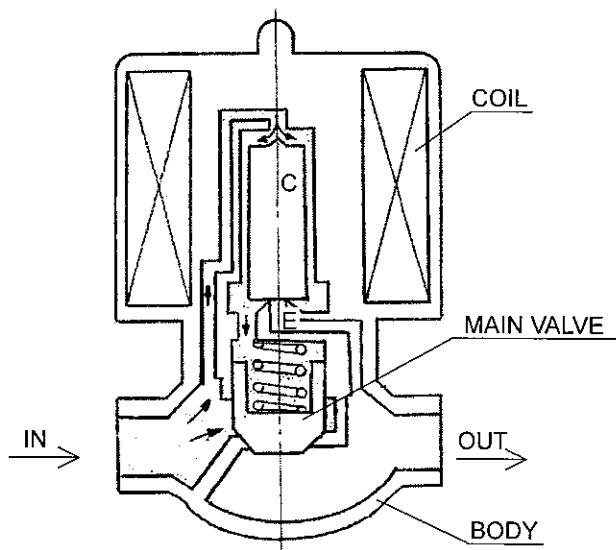
Model : PVS — 15A — 210  
80A



## OPERATION

## SOLENOID DE-ENERGIZED

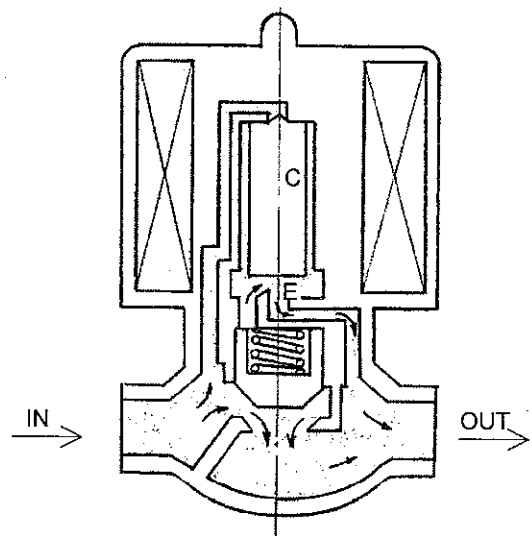
- Skech A -



The MAIN VALVE is closed by means of the pressure from port "IN" being stopped the flow , because the PLUNGER "C" blocks the ORIFFISE "E" as shown as above skech "A" .

## SOLENOID ENERGIZED

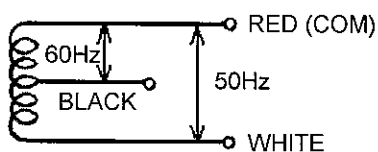
- Skech B -



The turned energized , MAIN VALVE opens thus permitting the fluid to flow to port "OUT" , skech "B" .

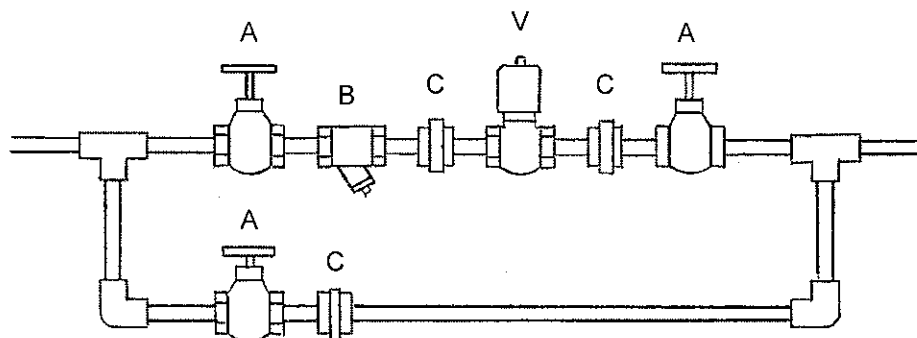
## WIRING

## 1. Wiring



2. Use the wire more than 0.75mm.
3. Prepare the Fuses 3A for electrical circuit.
4. Snap actioned – Switch or Relay is recommendable to the electrical circuit.
5. Avoid such circuit systems to occur the Voltage – drop.

## PIPING



A : STOP VALVE

B : STORAINAR or FILTER (Mesh #100)

C : UNION

V : SOLENOID VALVE (PVS)

1. Clean off inside of the pipe before installing the SOLENOID VALVE.
2. Check for the correct flow-direction.
3. Provide Strainer or Filter in front of the SOLENOID VALVE.
4. Don't get hold the bonnet or terminal box to pipe.
5. Keep the coil part away from water spray.
6. When using steam, always retighten the stuffing body connection bolts before using it.

Once the connection bolts have been retightened properly, the torque may not lower and repeated retightening is not required. Retighten the connecting bolts with proper tightening torque shown in the following table.

|             | Tightening torque [N·m] |
|-------------|-------------------------|
| PVS-15A-210 | 15 ~ 28                 |
| PVS-20A-210 | 24.5 ~ 42.5             |
| PVS-25A-210 |                         |
| PVS-32A-210 | 24.5 ~ 49               |
| PVS-40A-210 |                         |
| PVS-50A-210 | 43 ~ 86                 |
| PVS-65A-210 | 110 ~ 190               |
| PVS-80A-210 |                         |