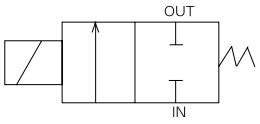
2 Port Solenoid Valve

Series DW

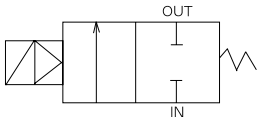
- WIDER RANGE OF OPERATING PRESSURE
  - 0 ~ 7 kgf/cm²(DW03)
  - 0 ~ 10 kgf/cm²(DW10,15)
  - 0.3 ~ 10 kgf/cm²(DW20, 25)
- HIGH FLOW CAPACITY
- LOW WATTAGE SOLENOID
- CAN BE MOUNTED IN ANY PLACE

Symmbol

Direct Type



Pilot Type



How to Order

DW **10** — **1** **C** — **01**

1 2 3 4 5

1 Rc(PT)2 Port Solenoid Valve Applicable Fluid (Water, Air, Oil)
※Option:Steam

2 Body(Orifice Size)
- 03 : ø2.5-Direct Type Solenoid
- 10 : ø10
- 15 : ø15
- 20 : ø20
- 25 : ø25

(10, 15, 20, 25 : Pilot Type Solenoid)

3 Voltage
- 1 : AC100V, 50/60㎐
- 2 : AC200V, 50/60㎐
- 5 : DC24V
- 9 : Others

4 Electric Connection
- G : Grommet (only Rc(PT) 1/8)
- C : Conduit

5 Port Size Rc(PT)
- 01 : Rc(PT) 1/8
- 02 : Rc(PT) 1/4
- 03 : Rc(PT)3/8
- 04 : Rc(PT) 1/2
- 06 : Rc(PT) 3/4
- 10 : Rc(PT)1

Standard Specifications

Applicable			Air, Water, Oil
Proof Pressure			15kg/cm²{1.5MPa}
Fluid Temperature			0~70°C
Temperature Rise			Max. 60°C
Electrical Entry			Grommet, Conduit
Actuation Type			Direct or Pilot Solenoid
Valve Type			Normal Close
Seat Type			Poppet
Rated Voltage	AC (50/60㎐)		100V, 200V
	DC		24V
Allowance Voltage Range			Rated Voltage ±10%
Coil Insulation			Class B or Equivalent(110℃)
Power Consumption	AC	Inrush	17VA (60㎐)
		Holding	15VA (60㎐)
	DC		11W

TPC PNEUMATICS

Applicable Specifications

Coil Apparent Power	AC110, 220V(50/60㎐)
	DC 6, 12V
Body Material	Stainless steel(SCS13)
Coil Insulation	H Class(180°C)
	AC100, 110, 200, 220V

Model

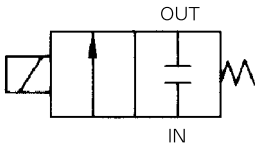
Type	Port (Size)	Pressure	Orifice Size (Ø mm)	Effective Orifice (mm^2)	Weight (kgf)
DW03-*G-01	RC(PT)1/8(6A)	0~7 kgf/cm^2 {0~0.7MPa}	2.5	6	0.3
DW03-*G-02	RC(PT)1/4(8A)		2.5	6	0.3
DW10-*C-02	RC(PT)1/4(8A)	0~10 kgf/cm^2 {0~1MPa}	10	34	0.5
DW10-*C-03	RC(PT)3/8(10A)		10	43	0.5
DW15-*C-04	RC(PT)1/2(15A)		15	160	0.7
DW20-*C-06	RC(PT)3/4(20A)	0.3~10 kgf/cm^2 {0.03~1MPa}	20	170	0.9
DW25-*C-10	RC(PT)1(25A)		25	225	1.2

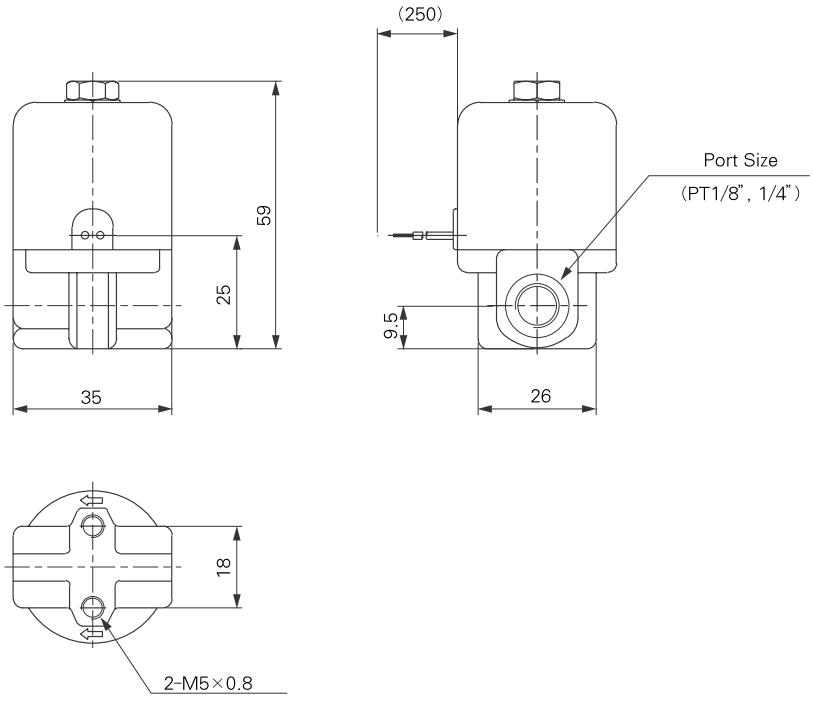
Direction Type

Unit:mm

DW□03-□G-$\frac{01}{02}$

Symbol



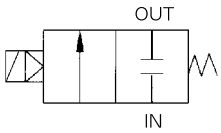


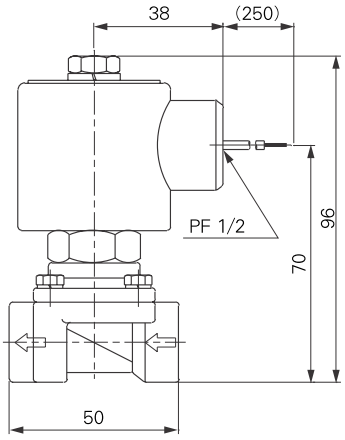
Pilot Type

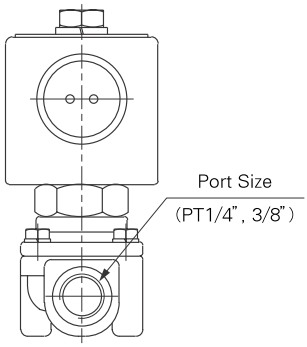
Unit:mm

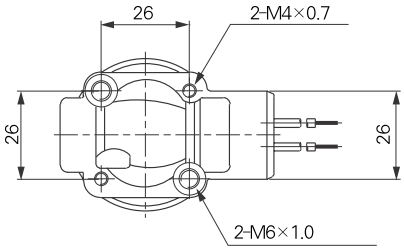
DW 10 - □C- 02 / 03

Symbol







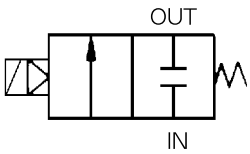


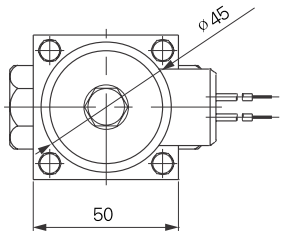
Pilot Type

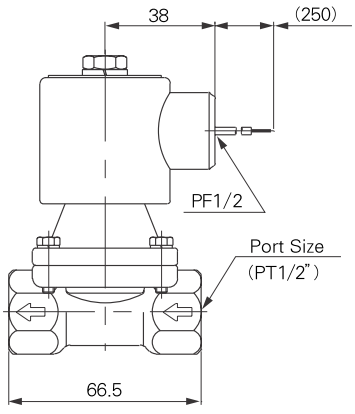
Unit:mm

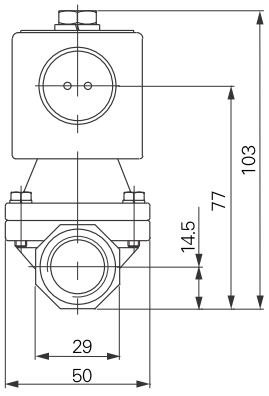
DW15 - □C - 04

Symbol







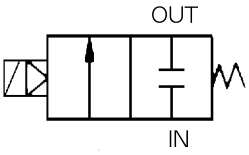


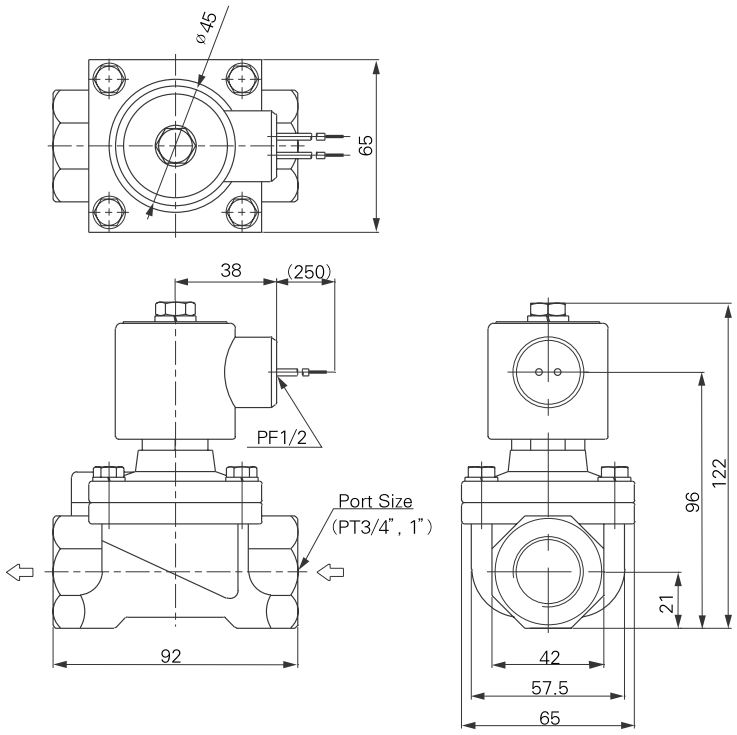
Pilot Type

Unit:mm

DW 20 - □C - 06
DW 25 - □C - 10

Symbol





Precautions

Piping

❶ Piping should be thoroughly flushed to remove sludge, cutting oil, and dust.
❷ During piping and coupling connection, care should be taken to prevent contamination by cut thread chips or sealing materials.(When applying sealing tape to threads, one screw thread should extend beyond the tape.)
❸ Pay attention to the piping direction(IN, OUT). IN or other marks are indicated on the inlet side.
❹ The coil should not be subjected to an extended force. When tightening, apply a wrench to the outside of the pipe mounting area only.
❺ The piping system should not be grounded. Grounding would cause electrolytic corrosion.
❻ To prevent collection of fluid within the piping circuit, install a relief valve within the circuit.

Wiring

❶ The minimum diameter for wire connection is 0.5mm^2.
❷ An electric circuit which prevents chattering at the point of contact should be employed.
❸ When the electric is apt to be damaged by surge voltage, place a surge suppressor in parallel with the solenoid valtage suppressor (option).
❹ The allowable votage range is -10%～+10% of the rated voltage. However, if great response is desired for DC power, the voltage range should be within ±5% of the rated voltage. Voltage drop is measured at a part of the lead wire connected to the coil.
❺ The voltage found on both ends of the coil, when it deenergizes, is:AC:20% or less of the rated voltage DC:2% or less of the rated voltage
The DC value is for a temperature of 20±5℃. At lower temperatures, the DC value will be lower.

Mounting

❶ The solenoid valve may be mounted in any orientation.
When mounted upside down, however, foreign material in the fluid is liable to adhere to the iron core. Avoid such a mounting method. Mount the valve with its coil facing up.
❷ Do not keep coil assemblies warm with insulating material, etc. It will cause the coil to burn out. Antifreezing tape, heater, etc., should be applied to piping and body areas only.
❸ Do not place the valve in areas of severe vibration. If it is unavoidable, shorten the arm to a minimum to avoid resonance.

Storage

Long time storage after using the valve for water will require complete removal of moisture in order to prevent corrosion and deterioration of rubber parts.

Long Period Energization or Deenergization

The valve switching period depends on the type and quality of the fluid. When pure water is taken as a standard, the valve should be switched at least once every 10 days. If the cycle is greater than 10 days, a system check mechanism should be installed. The valve is not intended to be used as an emergency Circuit breaker Specify operational conditions for use under conditions similar to that.

Fluid Temperature

Refer to the temperature range for each model. The temperature range changes according to the sealing material, coil insulation, power, supply, etc. Contact our representative for use other than standard use.

Applicable Fluid

❶ Fluid Classification
When selecting a valve for your application, ensure the compatibility of the fluid and valve materials. Generally, the recommended viscosity of fluid is 50cSt max.
For futher details, contact our representative.
〈Reference〉 Standard materials
Body:Brass or BC6 Seal:NBR, Coil:Insulation Type B.
These are for water, air, and oil use. For materials other than standard, refer to the "Option list" and "Applicable fluid check list." The specifications may be slightly different.

❷ Fluid Quality
Fluid mixed with foreign material can promote wear of the valve seat and iron core. Adhesion of foreign particles to the iron core and sliding section can cause degraded function of the valve or sealing trouble. To prevent this, place a filter(strainer)immediately in front of the solenoid valve. In general, a mesh of 80~100 is recommended.
❸ Lubricant
Our solenoid valves do not need lubrication. However, lubricated air will increase their life.
❹ In using inflammable oil and gas, prevention of leakage both inside and outside of the valve should be exercised.
❺ In case oil and other impurities are not allowed in the fluid, use nonlube treated parts.
❻ Under conditions near the limit of valve operation, the option and fluid may not be applicable as they are since only general applications are shown, check actual conditions on your own for appropriate selection.