

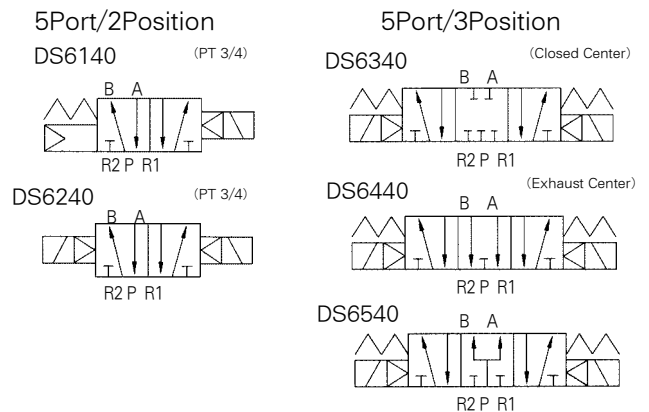
# Series **DS 6000**

## Elastic Seal 5 Port Pilot Type



- COMPACT SIZE AND LIGHT FLOW CAPACITY  
EFFECTIVE ORIFICE 90mm<sup>2</sup>(Cv 5.0)
- LOW POWER CONSUMPTION -1.8w(DC)
- MANY VARIATIONS AVAILABLE

### Symbol



## How To Order



#### 1 Series

Blank : Rc(PT)Port  
U : NPT

#### 2 Type of Actuation

1 : 2 Position Single  
2 : 2 Position Double  
3 : 3 Position Closed Center  
4 : 3 Position Exhaust Center  
5 : 3 Position Pressure Center

#### 3 Voltage

1 : AC 110V(50/60Hz)  
2 : AC 220V(50/60Hz)  
3 : AC 120V(50/60Hz)

4 : AC 240V(50/60Hz)

5 : DC 24V

6 : DC 12V

#### 4 Electrical Entry/ Indicator Light and Surge Suppressor

G : Grommet

DZ : DIN Connector(With indicator Light and surge suppressor)

#### 5 Port Size

06 : 3/4

## Specifications

Model	DS6140	DS6240	DS6340	DS6440	DS6540
Fluid	Air				
Operating Pressure Range(kgf/cm <sup>2</sup> )	1.5~9.9	1~9.9	1.5~9.9		
Effective Orifice mm <sup>2</sup> (Cv)	90(5.0)		70(3.89)		
Ambient and Fluid Temperature	Max. 50℃				
Response Time(5kgf/cm <sup>2</sup> )	40ms or less		60ms or less		
Max. Operating frequency	5c/s		3c/s		
Lubrication	Not required				
Manual Override	Non-locking Push Type				
Impact/Vibration Resistance	30G/5G(8.3~2000HZ)				
Enclosure	Dust Proof				
Coil Voltage	AC 50/60HZ 110V, 120V, 220V, 240V, DC12V, 24V				
Allowable Voltage	-15%~+10% of Rated Voltage				
Coil Insulation	Class B or equivalent(130℃)				
Apparent Power	AC	Inrush	5.6VA(50HZ), 5.0VA(60HZ)		
		Holding	4.5VA(50HZ), 3.8VA(60HZ)		
Power Consumption	DC	1.8W/2W(With LED)			
Weight(gf)	1,170	1,200	1,220	1,220	1,220
Surge suppressor circuit	AC, DC : Varistor				
Indicator Light	LED				

DV1000 ·  
3000 · 4000

DV2000

DS2000

DS3000

DS5000

DS6000

DX2

DV100

DS300

DW

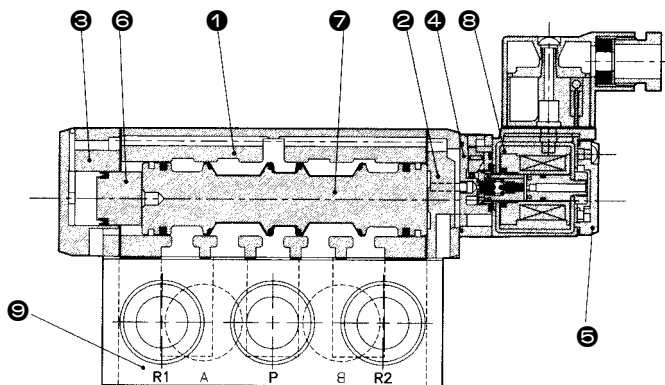
DP300 ·  
3000 · 5000

DM

DH

## Construction/Parts List

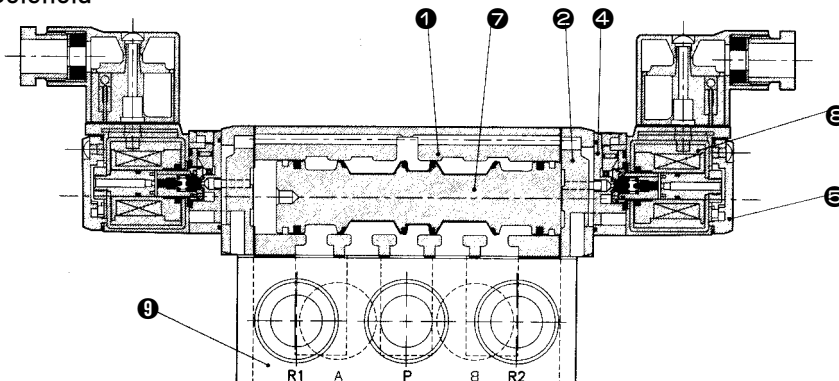
### Single Solenoid



### Main Parts

No.	Description	Material
①	Body	Aluminum
②	Adapter Plate	Aluminum
③	End Cover	Aluminum
④	Pilot Body	Polyacetal
⑤	Pilot Cover	Polyacetal
⑥	Piston	Polyacetal
⑦	Spool	Aluminum · NBR
⑧	Coil Ass'y	-
⑨	Base	Aluminum

### Double Solenoid

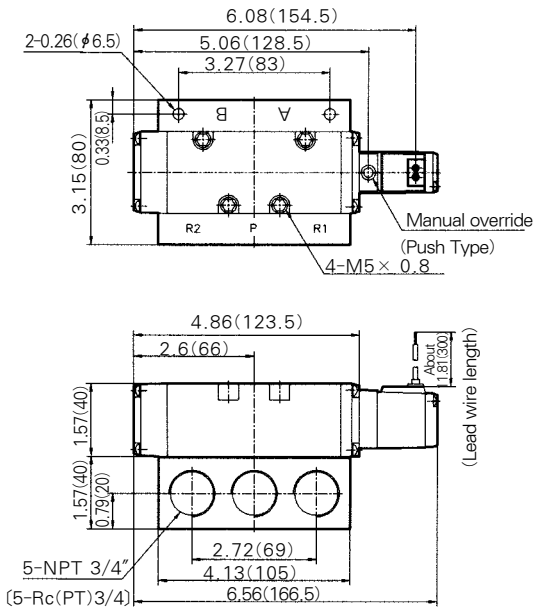


# Series DS6000

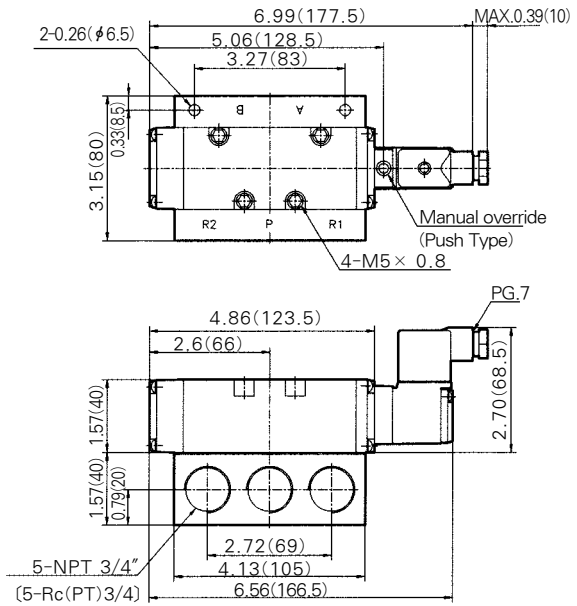
## 2 Position Single Solenoid

inch(mm)

Grommet(G)/DS 6140-OG



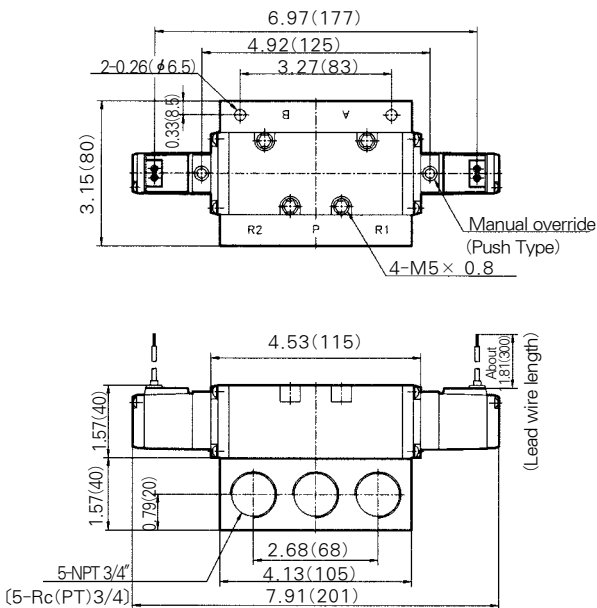
DIN Connector Type (D, DZ) DS6140-○ D DZ



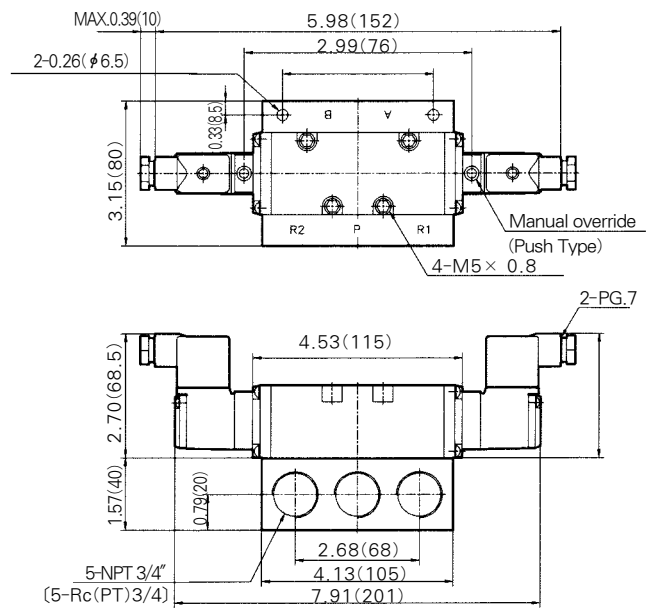
## 2 Position Double Solenoid

inch(mm)

Grommet(G)/DS 6240 - OG



DIN Connector Type (D, DZ) DS6240-○ D DZ



3 Position Closed Center · Exhaust Center · Pressure Center

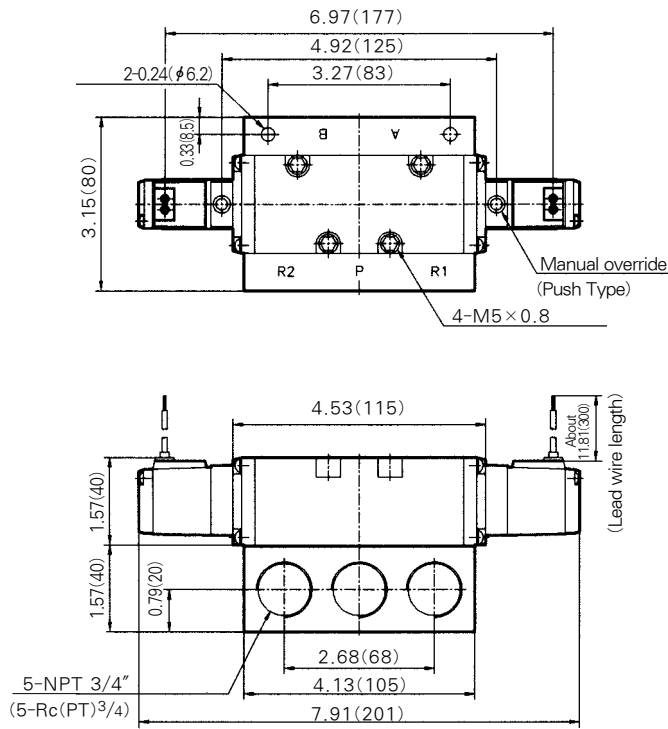
inch(mm)

Grommet(G)

DS 6300 - OG

4

5



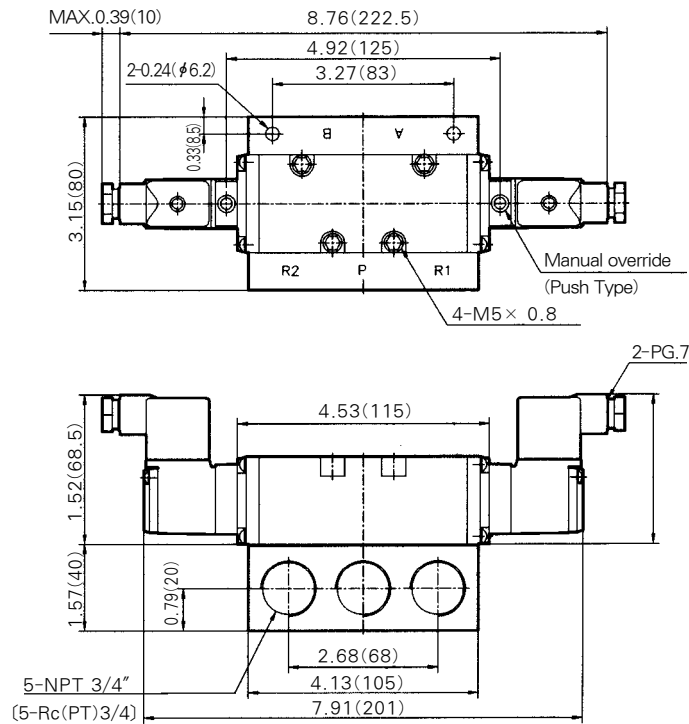
DIN Connector Type(D, DZ)

DS 6300 - O D

4

DZ

5



DV1000 · 3000 · 4000

DV2000

DS2000

DS3000

DS5000

DS6000

DX2

DV100

DS300

DW

DP300 · 3000 · 5000

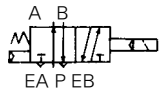
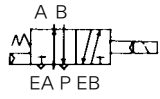
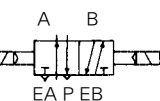
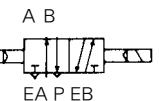
DM

DH

## Precautions

### Use as a 3 Port Valve

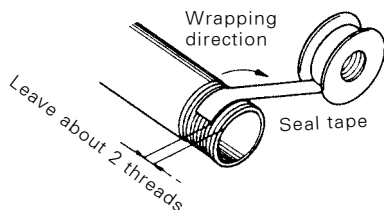
Plugging one of the Cylinder Ports (A or B) enables use as a 3 Port Valve. It should not be used in special applications such as a Non-leakage Valve. Make sure the Exhaust port is open if used as a 3 Port Valve.

Plug		A Port (CYL.1 Port)	B Port (CYL.2 Port)
Function		N.C	N.O
Sole-noid	Single	(X)Plug 	(X)Plug 
	Double	(X)Plug 	(X)Plug 

### Mounting

1. Make sure that Chips, Cutting Oil, Dust, etc. are cleaned up before mounting.
2. When screwing the pipe or fitting into a port, ensure that Chips or Sealing material will not get in.
3. A Filter has already been installed to the Pilot Exhaust(P.E.) Port, so if a Silencer is to be added, first remove the Filter.

Thread	Appropriate Clamping Torque kgf · cm(N · m)
1/8"	70~90(7~9)
1/4"	120~140(12~14)



### Use at Low Temperature

Available for use under  $-10^{\circ}\text{C}$ , however care should be taken to protect against freezing moisture.

### Quality Of Fluid

1. Filtration to 10 Microns is sufficient.

### Lubricant

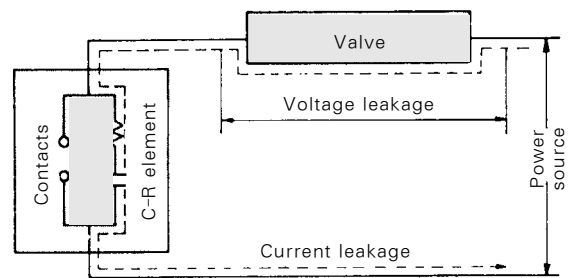
1. Valves are pre-lubricated - no further lubrication is necessary.
2. If a lubricant is used, please use Turbine Oil (ISO VG32).

### Momentary Energizing

When using a Double Solenoid type with momentary energizing, make sure the energizing time is more than 0.05 seconds.

### Leakage Voltage

1. For the leakage current, residual leakage voltage of AC coil must be less than 20% of the rated voltage, and leakage voltage of DC coil must be less than 3% of the rated voltage when the switch is off.
2. When using a C-R element, it will increase the leakage voltage.



### Remarks

Port	DS6000
Supply	P(SUP)
Cylinder	A(CYL.2), B(CYL.1)
Exhaust	R1(EXH2), R2(EXH1)
Symbol (Single solenoid)	<p>P : SUP. B : CYL.1 A : CYL.2 R1 : EXH.1 R2 : EXH.2</p> 