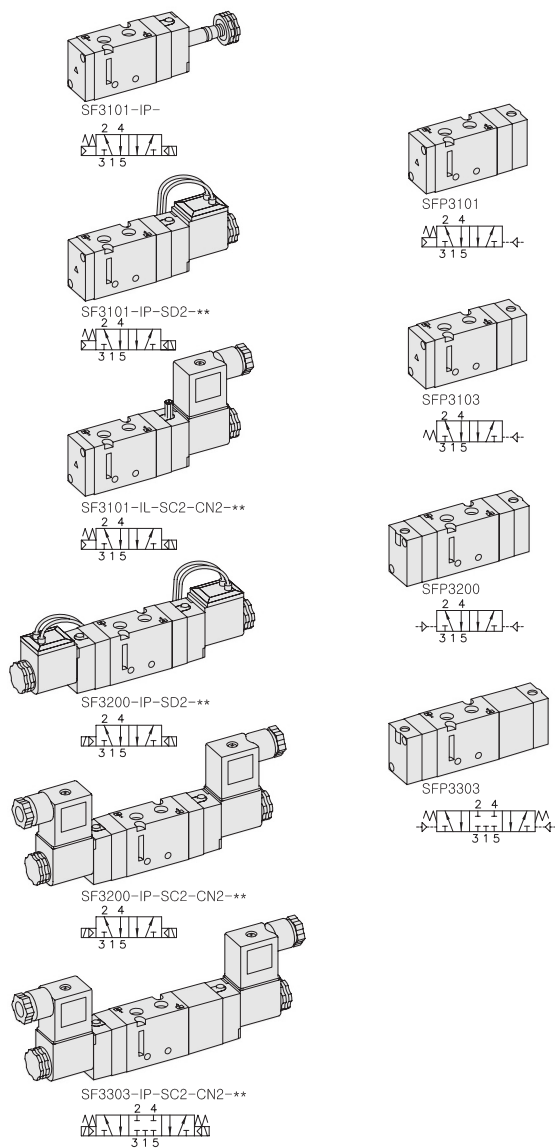


SF3000. 1/8

"F" FLEXIBLE Series
Solenoid / Pneumatic Valves

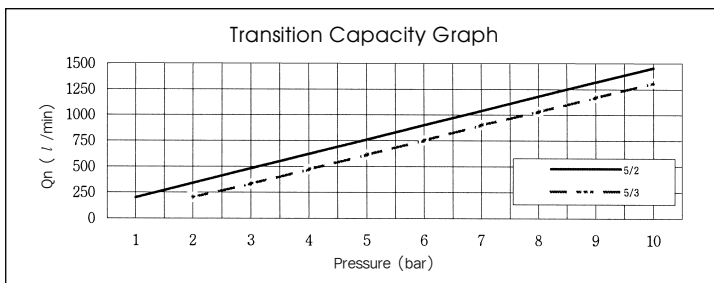
- 5/2, 5/3 - 1/8
- 23mm Body Width
- Transition Flow 760ℓ/min (5bar)



** : Voltage Selection (see page 80)

SPECIFICATION

| ITEM | SERIES | SOLENOID, PNEUMATIC | |
|--|--------|---|-------------------|
| | | 5 Port 2 Position | 5 Port 3 Position |
| Fluids | | Compressed Air & Inert Gases | |
| Pressure(bar) | | 1.5~10.0 | 2.0~10.0 |
| Eff. Section Area(mm ²)-5bar | | 13.5 | 11.0 |
| Ambient & Fluid Temp. | | 5~60°C (41~140°F) | |
| Response Time(5bar) | | 25ms or Less | 35ms or Less |
| Max. Working Frequency | | 5c/sec | 3c/sec |
| Lubrication | | Not Required(Use ISO VG32 #) | |
| Manual Override | | Push Button(Standard), Lever Lock(Option) | |
| Coil Insulation Class | | F-Class or Equivalent | |
| Permissible Voltage Variation | | ±10% of Rated Voltage | |
| Off Min. Residual Voltage | | AC:20% or Less / DC:10% or Less | |
| Power Consumption | | Holding-AC:5.5VA(60Hz) / DC:2.5W | |



The Material of Parts

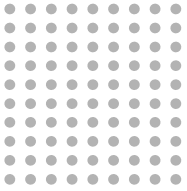
- Valve Body : Die-Cast Aluminium
- Spool : Aluminium
- Seals : NBR
- Spring : Stainless
- Cap : Zinc Pressure Die-Cast
- Pilot Parts : Glass Filled Nylon
- Armature : Stainless Steel
- Armature Seals : Viton

* The specification on each item can be amended without any prenotice to improve a performance.
* The specification on each item can be different from actual specification.

ORDERING NO.

SF3 1 0 1 - I P - SC2 - CN2 - A2

| Valve Series | Function | Port Size & Thread | Return Method | Int/Ext. Pilot | Manual Operator | Solenoid Coil Type | Connector Type | Voltage |
|---------------------------|-----------------------|--------------------|----------------|------------------|-----------------|-----------------------------------|---|-------------------------------------|
| SF3 : Solenoid Valve | 1 5/2 Single | 0 G 1/8 | 0 None | I Internal Pilot | O None | O None | O None | O None |
| | 2 5/2 Double | 1 NPT 1/8 | 1 Air + Spring | | P Push | SC2 3 Pin Connector Coil | CN2 Normal Connector | A2 AC 220V |
| | 3 5/3 Closed Center | | 2 Air | | | SG2 Grommet/Flying Leads | CD2 Connector With LED | A1 AC 110V |
| | 4 5/3 Open Center | | 3 Spring | | L Lever Locking | SD2 Grommet/Flying Leads With LED | C22 Connector With LED & Surge Suppressor | A4 AC 24V D4 DC 24V D2 DC 12V |
| SFP3 : Pneumatic Valve | 5 5/3 Pressure Center | | | | | | | |

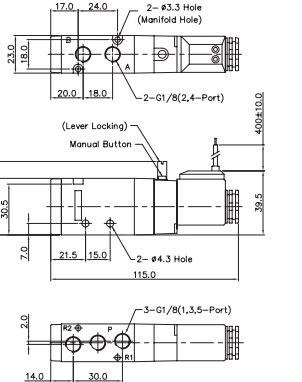
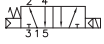


Solenoid & Pilot Actuated Spool Valves

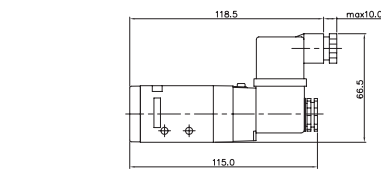
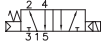
Port Thread 1/8

5Port 2Position Solenoid Valve

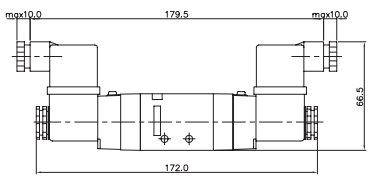
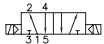
Single Solenoid
SF3101-IP-SD2-***



SF3101-IP-SC2-CN2-***

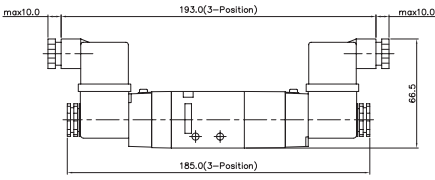
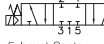


Double Solenoid
SF3200-IP-SC2-CN2-***

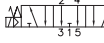


5Port 3Position Solenoid Valve

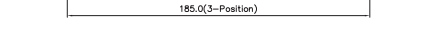
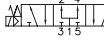
Closed Center
SF3303-IP-SC2-CN2-***



Exhaust Center
SF3403-IP-SC2-CN2-***

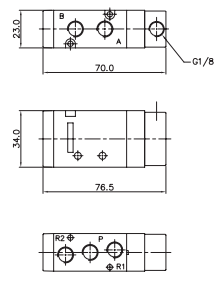
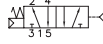


Pressure Center
SF3503-IP-SC2-CN2-***

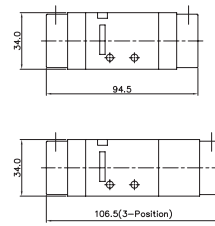
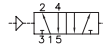


5Port 2Position Pneumatic Valve

Single Pneumatic
SFP3101



Double Pneumatic
SFP3200



5Port 3Position Pneumatic Valve

Closed Center
SFP3303



Exhaust Center
SFP3403



Pressure Center
SFP3503



MF3000 MANIFOLD BLOCK

(SF3000 Solenoid & Pneumatic Valve Use)

Manifold Block Ordering Code

| | | | | | |
|---------|------------------|----|------------|---|--|
| MF 3500 | | - | | 2 | |
| Series | Manifold Station | | | | |
| MF3500 | 5 Way | 02 | 2-Station | | |
| | | 04 | 4-Station | | |
| | | 06 | 6-Station | | |
| | | 08 | 8-Station | | |
| | | 10 | 10-Station | | |

Blanking Plate Ordering Code

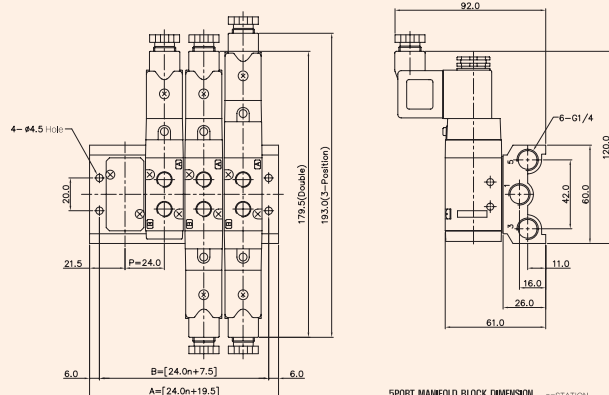
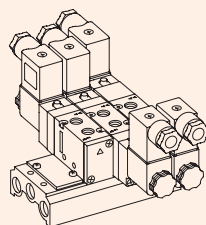
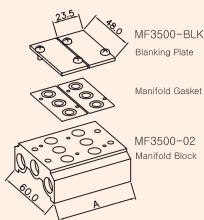
MF3500-BLK

Blanking Plate.
(Material: SCP1)

Manifold Gasket.
(Material: NBR)

5-Port Manifold Block

MF3500-4

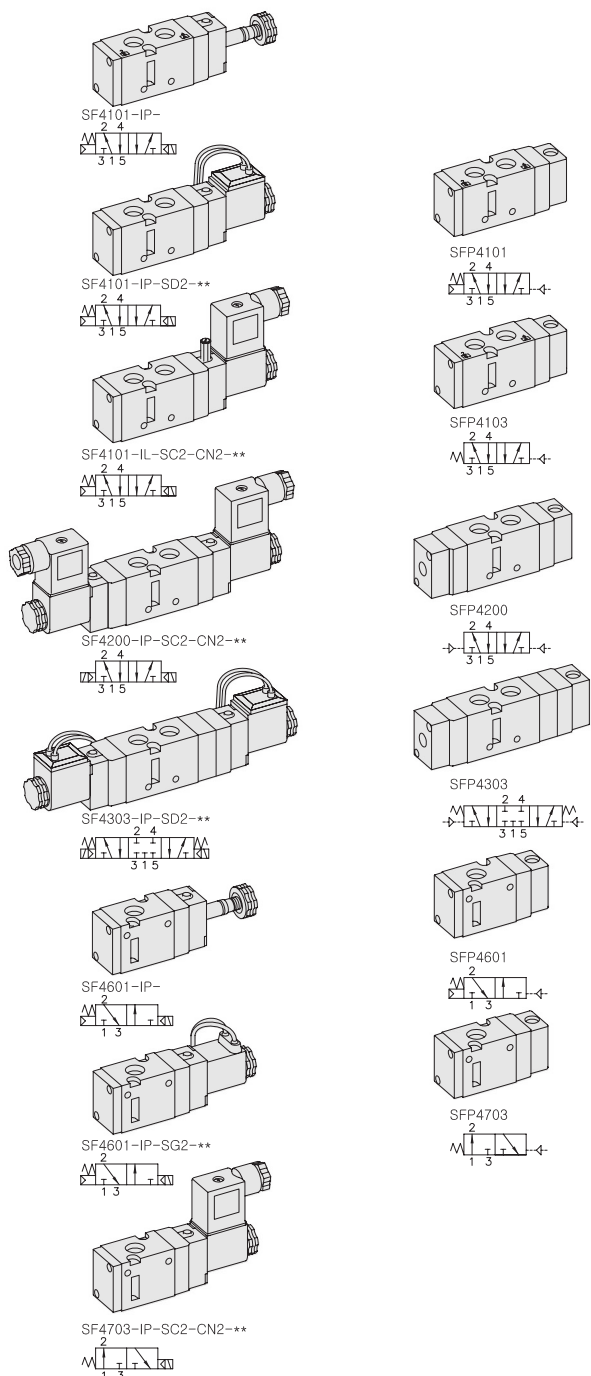


| SPORT MANIFOLD BLOCK DIMENSION | | | | | | n=STATION |
|--------------------------------|------|-------|-------|-------|-------|-----------|
| ITEM | 2 | 4 | 6 | 8 | 10 | |
| B | 55.5 | 103.5 | 151.5 | 199.5 | 247.5 | |
| A | 67.5 | 115.5 | 163.5 | 211.5 | 259.5 | |

SF4000. 1/4

"F" FLEXIBLE Series
Solenoid / Pneumatic Valves

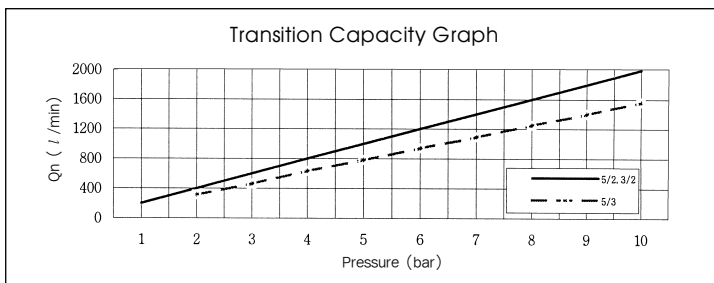
- 5/2, 5/3, 3/2 - 1/4
- 26mm Body Width
- Transition Flow 1000ℓ/min (5bar)



** : Voltage Selection (see page 80)

SPECIFICATION

| ITEM | SERIES | SOLENOID, PNEUMATIC | |
|--|--------|---|-------------------|
| | | FUNCTION | |
| | | 5, 3 Port 2 Position | 5 Port 3 Position |
| Fluids | | Compressed Air & Inert Gases | |
| Pressure(bar) | | 1.5~10.0 | 2.0~10.0 |
| Eff. Section Area(mm ²)-5bar | | 19.0 | 11.5 |
| Ambient & Fluid Temp. | | 5~60°C (41~140°F) | |
| Response Time(5bar) | | 25ms or Less | 35ms or Less |
| Max. Working Frequency | | 5c/sec | 3c/sec |
| Lubrication | | Not Required(Use ISO VG32 #) | |
| Manual Override | | Push Button(Standard), Lever Lock(Option) | |
| Coil Insulation Class | | F-Class or Equivalent | |
| Permissible Voltage Variation | | ±10% of Rated Voltage | |
| Off Min. Residual Voltage | | AC:20% or Less / DC:10% or Less | |
| Power Consumption | | Holding-AC:5.5VA(60Hz) / DC:2.5W | |



- ### The Material of Parts
- Valve Body : Die-Cast Aluminium
 - Spool : Aluminium
 - Seals : NBR
 - Spring : Stainless
 - Cap : Zinc Pressure Die-Cast
 - Pilot Parts : Glass Filled Nylon
 - Armature : Stainless Steel
 - Armature Seals : Viton

* The specification on each item can be amended without any prenotice to improve a performance.
* The specification on each item can be different from actual specification.

ORDERING NO.

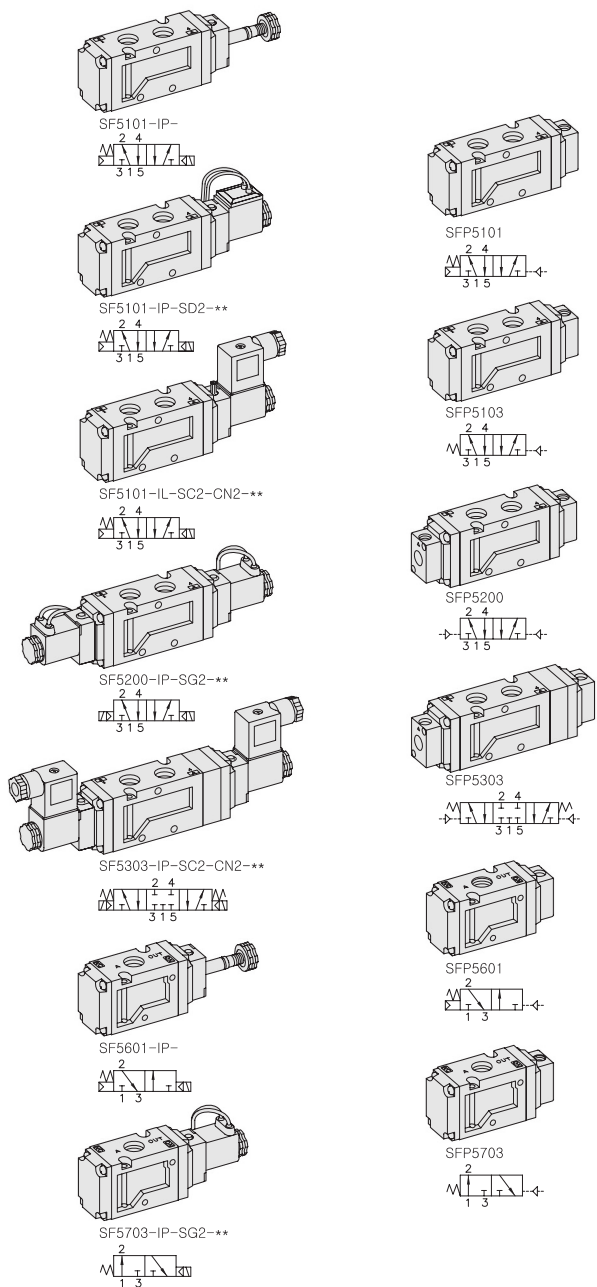
SF4 1 0 1 - I P - SC2 - CN2 - A2

| Valve Series | Function | Port Size & Thread | Return Method | Int/Ext. Pilot | Manual Operator | Solenoid Coil Type | Connector Type | Voltage |
|---------------------------|-----------------------|--------------------|----------------|------------------|--------------------|-----------------------------------|---|------------|
| SF4 : Solenoid Valve | 1 5/2 Single | 0 G 1/4 | 0 None | I Internal Pilot | 0 None | 0 None | 0 None | 0 None |
| | 2 5/2 Double | 1 NPT 1/4 | 1 Air + Spring | | P Push Non-Locking | SC2 3 Pin Connector Coil | CN2 Normal Connector | A2 AC 220V |
| | 3 5/3 Closed Center | | 2 Air | | L Lever Locking | SG2 Grommet/Flying Leads | CD2 Connector With LED | A1 AC 110V |
| | 4 5/3 Open Center | | 3 Spring | | | SD2 Grommet/Flying Leads With LED | CZ2 Connector With LED & Surge Suppressor | A4 AC 24V |
| SFP4 : Pneumatic Valve | 5 5/3 Pressure Center | | | | | | D4 DC 24V | |
| | 6 3/2 Normally Closed | | | | | | D2 DC 12V | |
| | 7 3/2 Normally Open | | | | | | | |

SF5000. 3/8

"F" FLEXIBLE Series
Solenoid / Pneumatic Valves

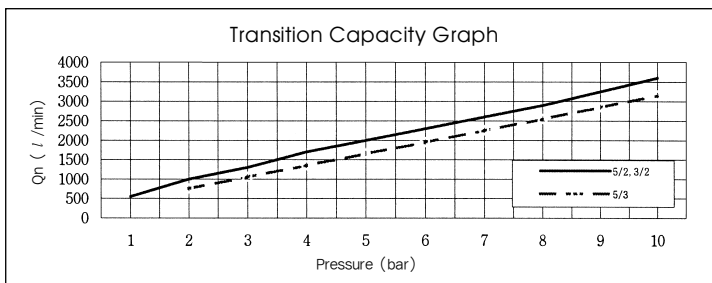
- 5/2, 5/3, 3/2 - 3/8
- 32mm Body Width
- Transition Flow 2000ℓ/min (5bar)



***: Voltage Selection (see page 80)

SPECIFICATION

| ITEM | SERIES | SOLENOID, PNEUMATIC | |
|--|--------|---|-------------------|
| | | FUNCTION | |
| | | 5, 3 Port 2 Position | 5 Port 3 Position |
| Fluids | | Compressed Air & Inert Gases | |
| Pressure(bar) | | 1.5~10.0 | 2.0~10.0 |
| Eff. Section Area(mm ²)-5bar | | 36.0 | 30.0 |
| Ambient & Fluid Temp. | | 5~60°C (41~140°F) | |
| Response Time(5bar) | | 30ms or Less | 40ms or Less |
| Max. Working Frequency | | 5c/sec | 3c/sec |
| Lubrication | | Not Required(Use ISO VG32 #) | |
| Manual Override | | Push Button(Standard), Lever Lock(Option) | |
| Coil Insulation Class | | F-Class or Equivalent | |
| Permissible Voltage Variation | | ±10% of Rated Voltage | |
| Off Min. Residual Voltage | | AC:20% or Less / DC:10% or Less | |
| Power Consumption | | Holding-AC:5.5VA(60Hz) / DC:2.5W | |



The Material of Parts

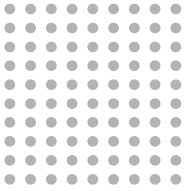
| | |
|-----------------------------------|------------------------------------|
| ■ Valve Body : Die-Cast Aluminium | ■ Pilot Parts : Glass Filled Nylon |
| ■ Spool : Aluminium | ■ Armature : Stainless Steel |
| ■ Seals : NBR | ■ Armature Seals : Viton |
| ■ Spring : Stainless | |
| ■ Cap : Zinc Pressure Die-Cast | |

* The specification on each item can be amended without any prenotice to improve a performance.
* The specification on each item can be different from actual specification.

ORDERING NO.

SF5 1 0 1 - I P - SC2 - CN2 - A2

| Valve Series | Function | Port Size & Thread | Return Method | Int/Ext. Pilot | Manual Operator | Solenoid Coil Type | Connector Type | Voltage |
|---------------------------|-----------------------|--------------------|----------------|------------------|--------------------|-----------------------------------|---|-------------------------------------|
| SF5 : Solenoid Valve | 1 5/2 Single | 0 G 3/8 | 0 None | 1 Internal Pilot | 0 None | 0 None | 0 None | 0 None |
| | 2 5/2 Double | 1 NPT 3/8 | 1 Air + Spring | | P Push Non-Locking | SC2 3 Pin Connector Coil | CN2 Normal Connector | A2 AC 220V |
| | 3 5/3 Closed Center | | 2 Air | | L Lever Locking | SG2 Grommet/Flying Leads | CD2 Connector With LED | A1 AC 110V |
| | 4 5/3 Open Center | | 3 Spring | | | SD2 Grommet/Flying Leads With LED | CZ2 Connector With LED & Surge Suppressor | A4 AC 24V D4 DC 24V D2 DC 12V |
| SFP5 : Pneumatic Valve | 5 5/3 Pressure Center | | | | | | | |
| | 6 3/2 Normally Closed | | | | | | | |
| | 7 3/2 Normally Open | | | | | | | |

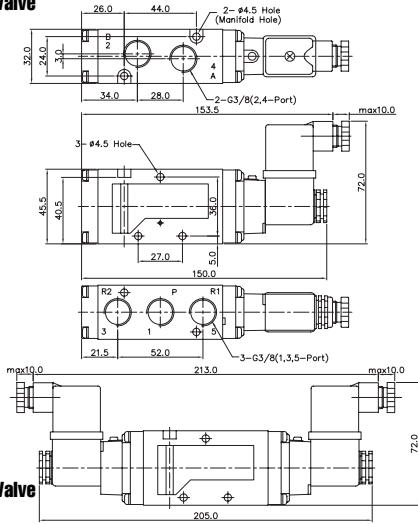


Solenoid & Pilot Actuated Spool Valves

Port Thread 3/8

5Port 2Position Solenoid Valve

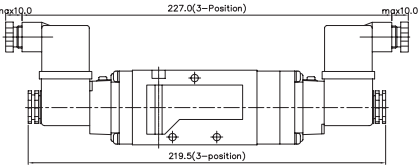
Single Solenoid
SF5300-IP-SC2-CN2-***
22 44
33 55



Double Solenoid
SF5200-IP-SC2-CN2-***
22 44
33 55

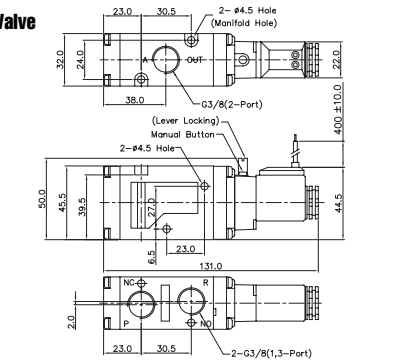
5Port 3Position Solenoid Valve

Exhaust Center
SF5403-IP-SC2-CN2-***
2 4
3 1 5
Pressure Center
SF5503-IP-SC2-CN2-***
2 4
3 1 5



3Port 2Position Solenoid Valve

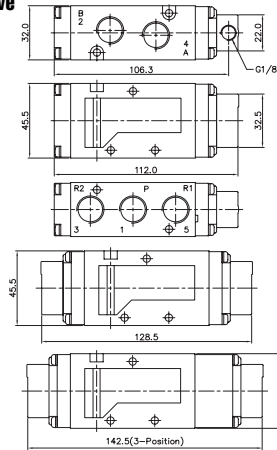
Normally Closed
SF5601-IP-SD2-***
2
1 3
Normally Closed
SF5701-IP-SD2-***
2
1 3



5Port 2Position Pneumatic Valve

Single Pneumatic
SFP5101
2 4
3 1 5

Double Pneumatic
SFP5200
2 4
3 1 5

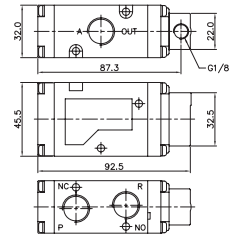


5Port 3Position Pneumatic Valve

Closed Center
SFP5303
2 4
3 1 5
Exhaust Center
SFP5403
2 4
3 1 5
Pressure Center
SFP5503
2 4
3 1 5

3Port 2Position Pneumatic Valve

Single Pneumatic
SFP5601
2
1 3



MF5000 MANIFOLD BLOCK

(SF5000 Solenoid & Pneumatic Valve Use)

Manifold Block Ordering Code

MF 5500 - 2

| Series | Manifold Station |
|--------|------------------|
| MF5500 | 5 Way |
| MF5300 | 3 Way |

| | |
|----|------------|
| 02 | 2-Station |
| 04 | 4-Station |
| 06 | 6-Station |
| 08 | 8-Station |
| 10 | 10-Station |

Blanking Plate Ordering Code

MF5500-BLK

Blanking Plate.
(Material: SCP1)

Manifold Gasket.
(Material: NBR)

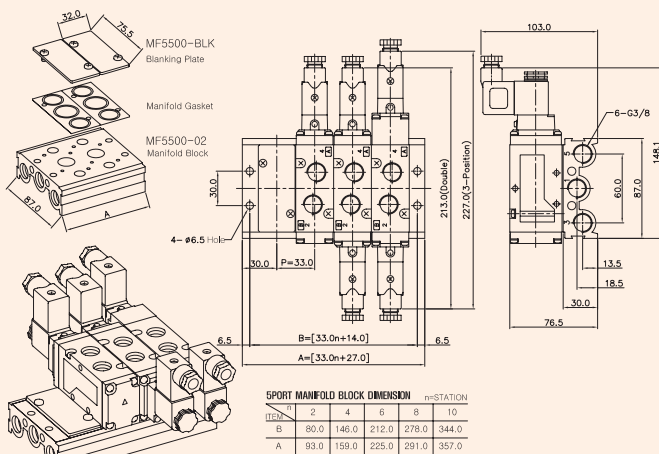
MF5300-BLK

Blanking Plate.
(Material: SCP1)

Manifold Gasket.
(Material: NBR)

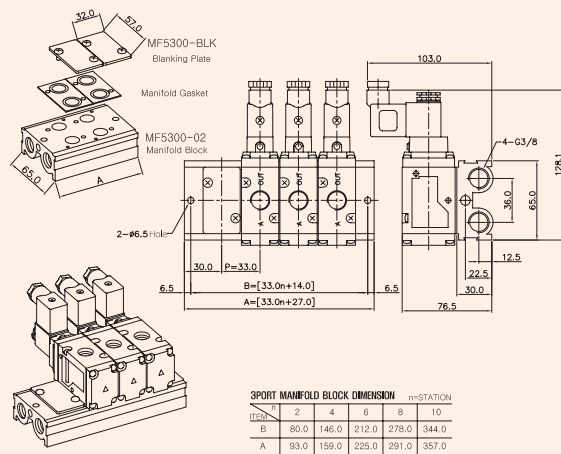
5-Port Manifold Block

MF5500-4



3-Port Manifold Block

MF5300-4



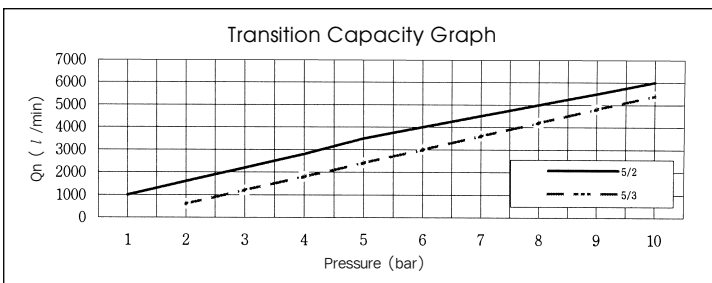
SF6000. 1/2

"F" FLEXIBLE Series
Solenoid / Pneumatic Valves

- 5/2, 5/3 - 1/2
- 36mm Body Width
- Transition Flow 3500ℓ/min (5bar)

SPECIFICATION

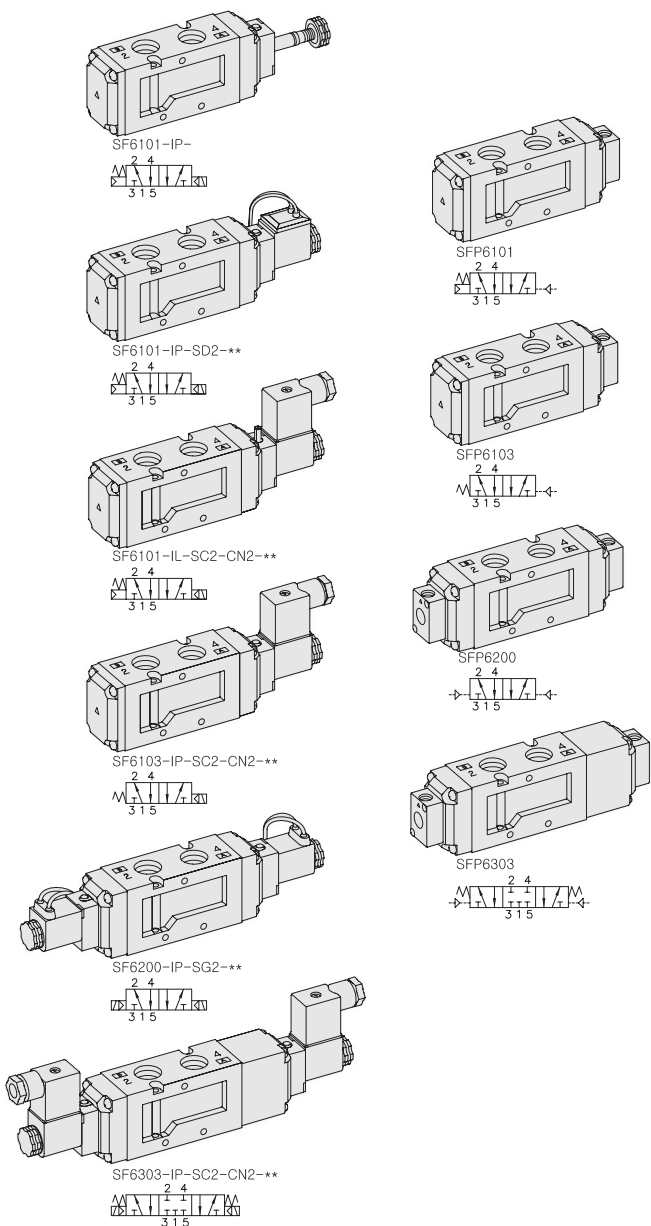
| ITEM | SERIES FUNCTION | SOLENOID, PNEUMATIC | |
|--|-----------------|---|-------------------|
| | | 5 Port 2 Position | 5 Port 3 Position |
| Fluids | | Compressed Air & Inert Gases | |
| Pressure(bar) | | 1.5~10.0 | 2.0~10.0 |
| Eff. Section Area(mm ²)-5bar | | 65.0 | 50.0 |
| Ambient & Fluid Temp. | | 5~60°C (41~140°F) | |
| Response Time(5bar) | | 30ms or Less | 40ms or Less |
| Max. Working Frequency | | 2c/sec | 1c/sec |
| Lubrication | | Not Required(Use ISO VG32 #) | |
| Manual Override | | Push Button(Standard), Lever Lock(Option) | |
| Coil Insulation Class | | F-Class or Equivalent | |
| Permissible Voltage Variation | | ±10% of Rated Voltage | |
| Off Min. Residual Voltage | | AC:20% or Less / DC:10% or Less | |
| Power Consumption | | Holding-AC:5.5VA(60Hz) / DC:2.5W | |



The Material of Parts

- Valve Body : Die-Cast Aluminium
- Spool : Aluminium
- Seals : NBR
- Spring : Stainless
- Cap : Zinc Pressure Die-Cast
- Pilot Parts : Glass Filled Nylon
- Armature : Stainless Steel
- Armature Seals : Viton

* The specification on each item can be amended without any prenotice to improve a performance.
* The specification on each item can be different from actual specification.

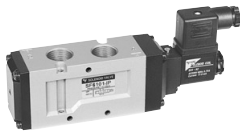
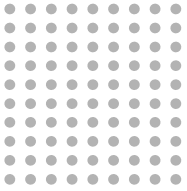


** : Voltage Selection (see page 80)

ORDERING NO.

SF6 1 0 1 - I P - SC2 - CN2 - A2

| Valve Series | Function | Port Size & Thread | Return Method | Int/Ext. Pilot | Manual Operator | Solenoid Coil Type | Connector Type | Voltage |
|---------------------------|-----------------------|--------------------|----------------|------------------|--------------------|-----------------------------------|---|------------|
| SF6 : Solenoid Valve | 1 5/2 Single | 0 G 1/2 | 0 None | 1 Internal Pilot | 0 None | 0 None | 0 None | 0 None |
| | 2 5/2 Double | 1 NPT 1/2 | 1 Air + Spring | | P Push Non-Locking | SC2 3 Pin Connector Coil | CN2 Normal Connector | A2 AC 220V |
| | 3 5/3 Closed Center | | 2 Air | | L Lever Locking | SG2 Grommet/Flying Leads | CD2 Connector With LED | A1 AC 110V |
| | 4 5/3 Open Center | | 3 Spring | | | SD2 Grommet/Flying Leads With LED | C22 Connector With LED & Surge Suppressor | A4 AC 24V |
| SFP6 : Pneumatic Valve | 5 5/3 Pressure Center | | | | | | D4 DC 24V | D2 DC 12V |

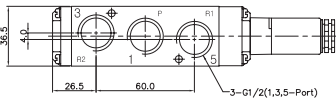
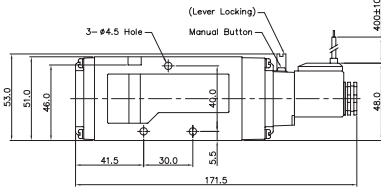
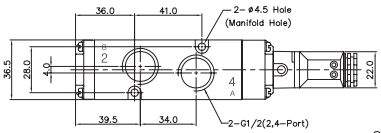
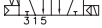


Solenoid & Pilot Actuated Spool Valves

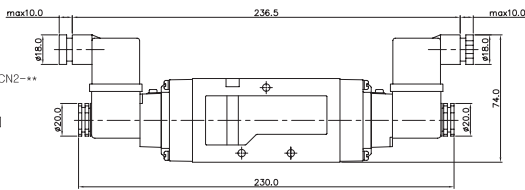
Port Thread 1/2

5Port 2Position Solenoid Valve

Single Solenoid
SF6101-IP-SD2-*



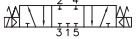
Double Solenoid
SF6200-IP-SC2-CN2-*



5Port 3Position Solenoid Valve

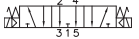
Closed Center

SF6303-IP-SC2-CN2-*



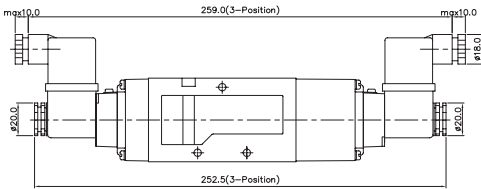
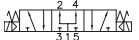
Exhaust Center

SF6403-IP-SC2-CN2-*



Pressure Center

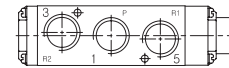
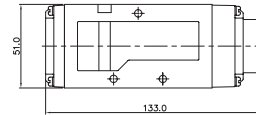
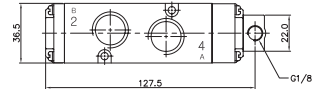
SF6503-IP-SC2-CN2-*



5Port 2Position Pneumatic Valve

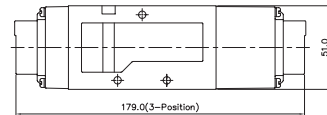
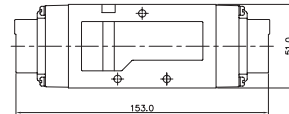
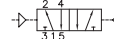
Single Pneumatic

SFP6101



Double Pneumatic

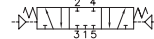
SFP6200



5Port 3Position Pneumatic Valve

Closed Center

SFP6303



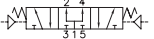
Exhaust Center

SFP6403



Pressure Center

SFP6503



Manifold Block Ordering Code

| | | | | | |
|---------|------------------|----|------------|---|--|
| MF 6500 | | - | | 2 | |
| Series | Manifold Station | | | | |
| MF6500 | 5 Way | 02 | 2-Station | | |
| | | 04 | 4-Station | | |
| | | 06 | 6-Station | | |
| | | 08 | 8-Station | | |
| | | 10 | 10-Station | | |

Blanking Plate Ordering Code

MF6500-BLK

Blanking Plate.
(Material: SCP1)

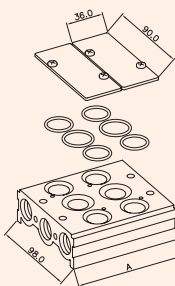
Gasket O-Ring
(Material: NBR)

MF6000 MANIFOLD BLOCK

(SF6000 Solenoid & Pneumatic Valve Use)

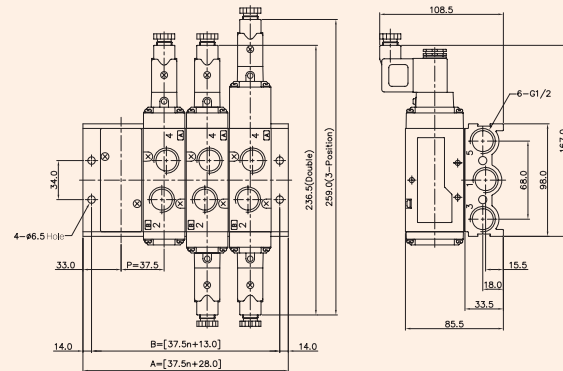
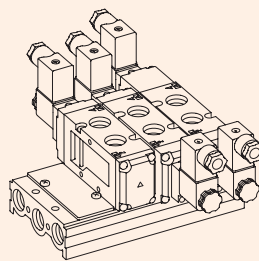
5-Port Manifold Block

MF6500-4



MF6500-BLK
Blanking Plate
Gasket O-Ring

MF6500-02
Manifold Block



| 5PORT MANIFOLD BLOCK DIMENSION | | n=STATION | | | | |
|--------------------------------|-------|-----------|-------|-------|-------|----|
| ITEM | 1 | 2 | 4 | 6 | 8 | 10 |
| B | 88.0 | 163.0 | 238.0 | 313.0 | 388.0 | |
| A | 103.0 | 178.0 | 253.0 | 328.0 | 403.0 | |