

Directional Control Valve



■ SV (Solenoid Valve)	176
■ SMV (Mechanical Valve)	199
■ SMVS (Spool type Mechanical valve)	209
■ SMVF (Pilot type Mechanical valve)	214
■ SFVM (Foot Valve)	229
■ SHV (Hand Valve)	231

5port Pilot Operated Solenoid Valve (SV)

SV1000 Series (Rc(PT) 1/8)

- 18.0mm Body width
- Transition Flow 700 l/min (5bar)

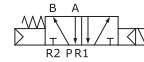


How to order

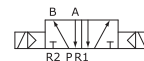
- SV 11 30-110V-CL-P-01**
- Solenoid valve**
 - Function**
 - 1 - 2 position single
 - 2 - 2 position double
 - 3 - 3 position Closed Center
 - 4 - 3 position Exhaust Center
 - 5 - 3 position Pressure Center
 - Coil Rate Voltage**
 - 220V - AC 220V
 - 110V - AC 110V
 - 24V - AC 24V
 - D24V - DC 24V
 - Coil Type**
 - Nil - Without Coil
 - G - Flying Leads (Grommet)
 - C - 3 Pin coil + Connector
 - CL - 3 Pin coil + LED lamp Connector
 - Manual Operator**
 - P - Push Button
 - Thread Type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
 - Port Size**
 - 01 - Rc(PT) 1/8

Symbol

2 Position Single



2 Position Double



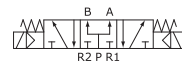
3 Position Closed Center



3 Position Exhaust Center



3 Position Pressure Center

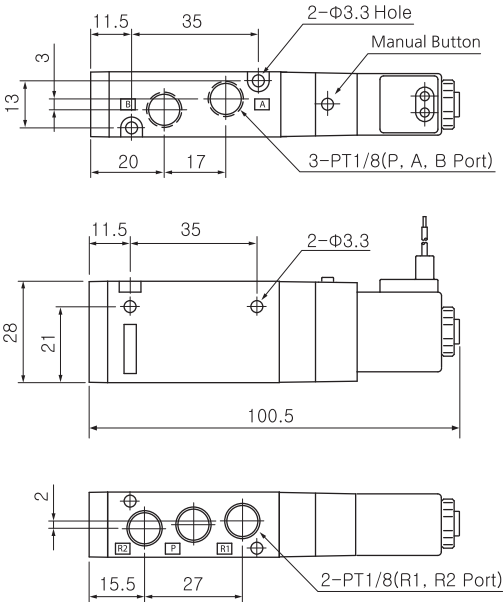


Specification

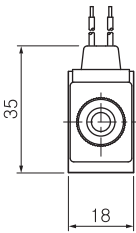
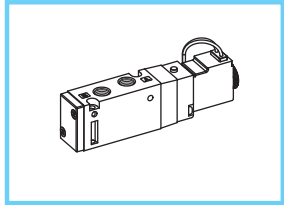
Function	5port 2position	5port 3position
Fluid	Compressed air	
Ambient and Media temp.	5 ~ 60℃	
Max. operating pressure	1.5~10bar	2~10bar
Eff. Sectional Area(5bar)	12.6mm ²	9.0mm ²
Response time(5bar)	25ms or less	35ms or less
Max. operating frequency	5c/sec	3c/sec
Lubrication	Not required	
Manual override	Push button	
Coil insulation	F-Class or Equivalent	
Allowable voltage	±10% rated voltage	
Power consumption	AC:3.6VA(60Hz) / DC:2.5W	

DIMENSIONS (mm)

2position / 5port single(Grommet type)

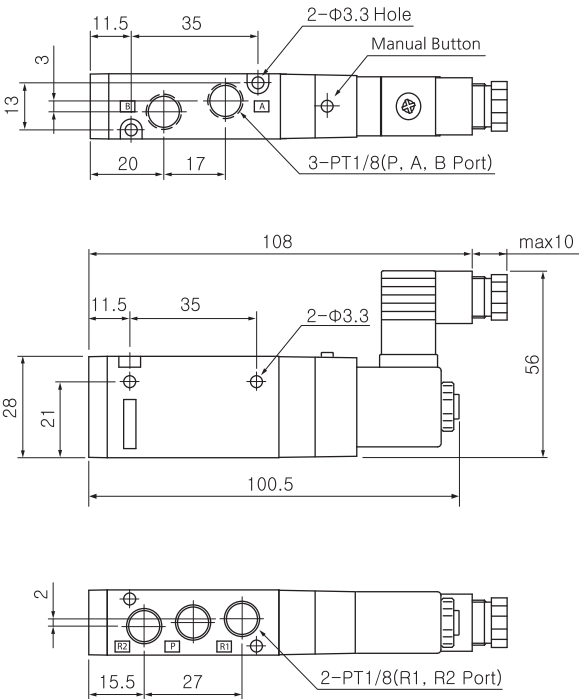


SV1130-□□□V-G-...

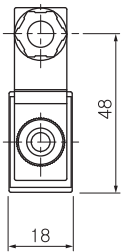
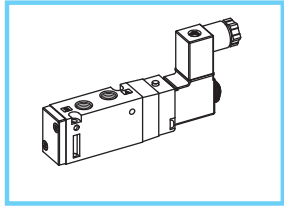


SV1000
SV3000
SV5000
SV6000
SV231 ~232
COIL CONNECTOR
SMV100
SMV200
SMVS200
SMVF231 ~232
SMVF250
SMVF350
SFVM
SHV
CAUTION

2position / 5port single(Connector type)



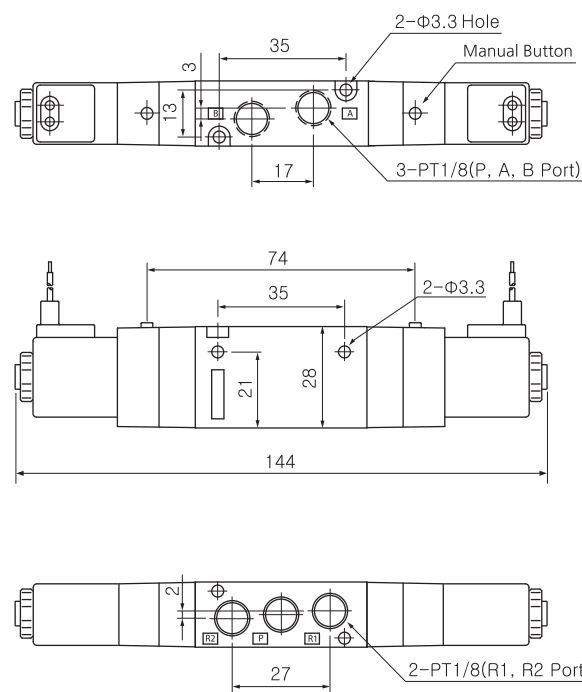
SV1130-□□□V-C-...



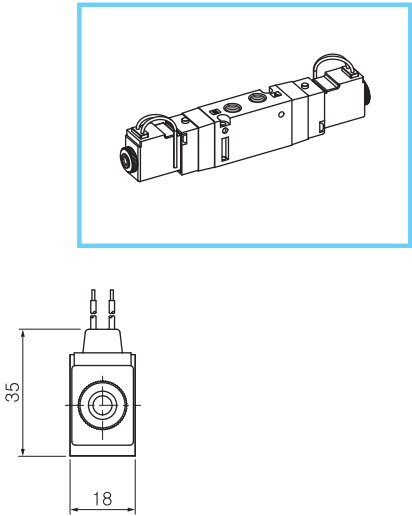
Series SV1000

DIMENSIONS (mm)

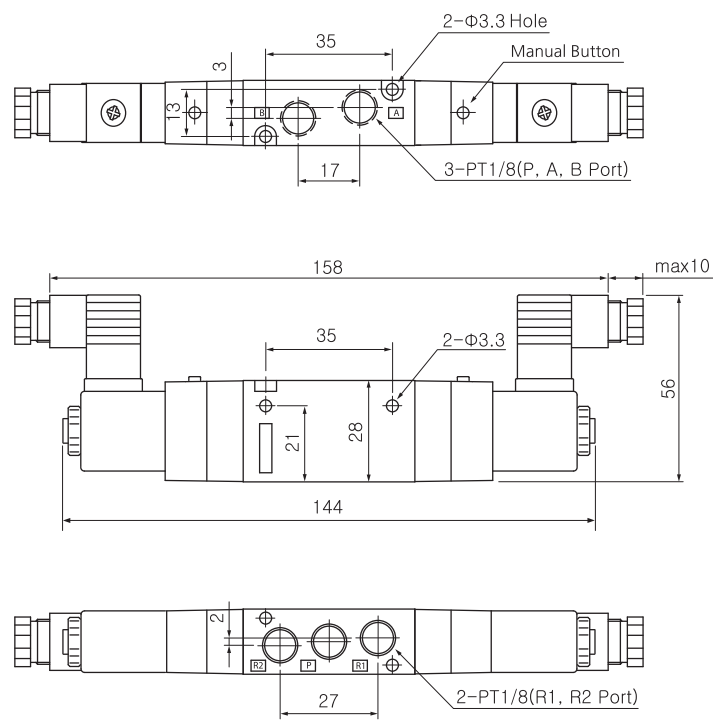
2position / 5port double(Grommet type)



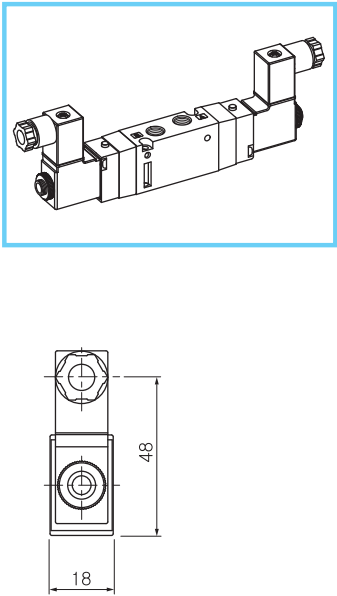
SV1230-□□□V-G-...



2position / 5port double(Connector type)

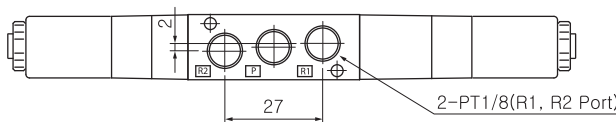
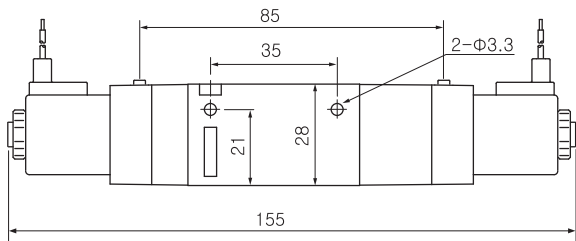
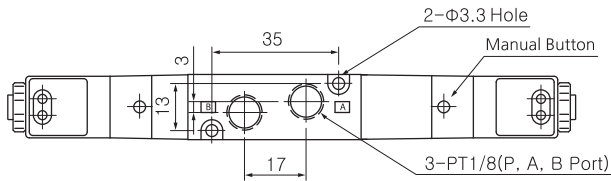


SV1230-□□□V-C-□-...

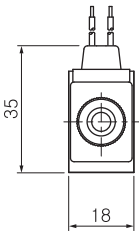
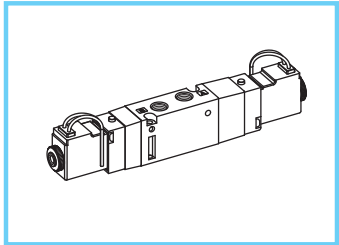


DIMENSIONS (mm)

3position / 5port double (Grommet type)



SV1330-□□□V-G-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

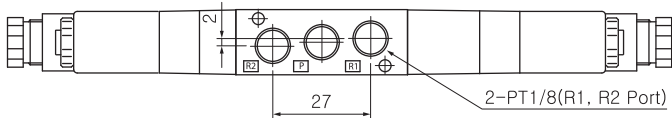
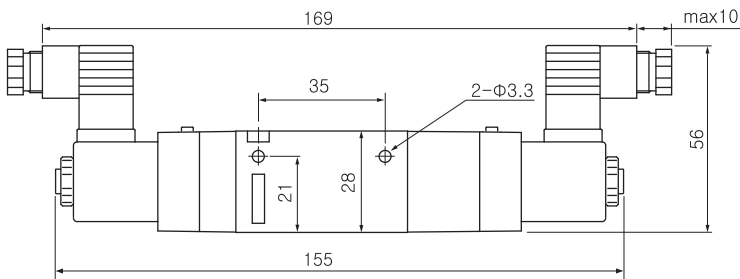
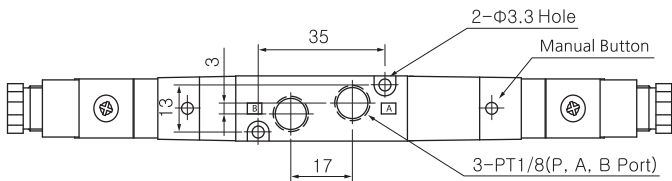
SMVF350

SFVM

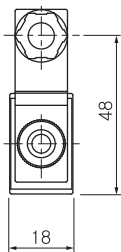
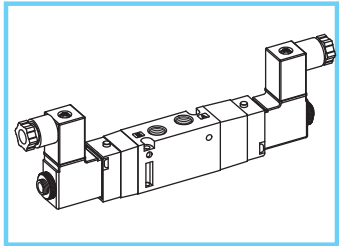
SHV

CAUTION

3position / 5port double (Connector type)



SV1330-□□□V-C□-...



5port Pilot Operated Solenoid Valve (SV)

SV3000 Series (Rc(PT) 1/4)

- 26,5mm Body width
- Transition Flow 1000 l/min (5bar)

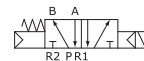


How to order

- SV 3 1 30-220V-GL-P-02**
- Solenoid valve**
 - Function**
 - 1 - 2 position single
 - 2 - 2 position double
 - 3 - 3 position Closed Center
 - 4 - 3 position Exhaust Center
 - 5 - 3 position Pressure Center
 - Coil Rate Voltage**
 - 220V - AC 220V
 - 110V - AC 110V
 - 24V - AC 24V
 - D24V - DC 24V
 - Coil Type**
 - Nil - Without Coil
 - G - Flying Leads (Grommet)
 - GL - Flying Leads with LED lamp(Grommet)
 - C - 3 Pin coil + Connector
 - CL - 3 Pin coil + LED lamp Connector
 - Manual Operator**
 - P - Push Button
 - Thread Type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
 - Port Size**
 - 02 - Rc(PT) 1/4(P, A, B), 1/8(R1, R2)

Symbol

2 Position Single



2 Position Double



3 Position Closed Center



3 Position Exhaust Center



3 Position Pressure Center

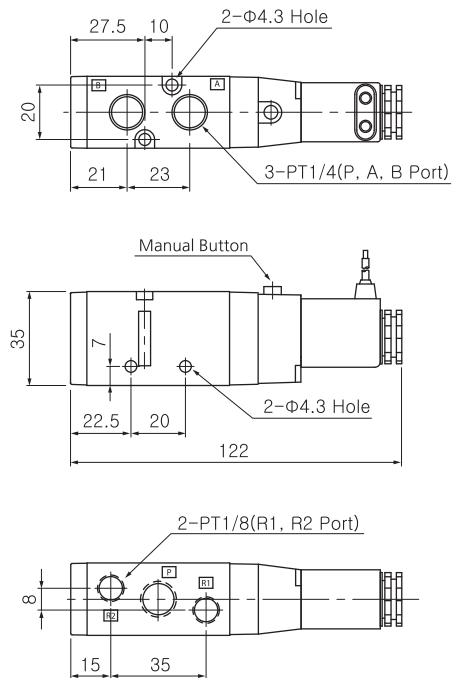


Specification

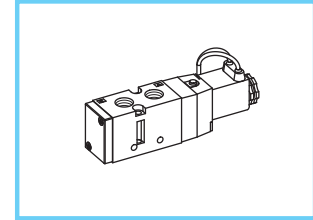
Function	5port 2position	5port 3position
Fluid	Compressed air	
Ambient and Media temp.	5~60℃	
Max. operating pressure	1.5~10bar	2~10bar
Eff. Sectional Area(5bar)	19mm ²	11.5mm ²
Response time(5bar)	25ms or less	35ms or less
Max. operating frequency	5c/sec	3c/sec
Lubrication	Not required	
Manual override	Push button	
Coil insulation	F-Class or Equivalent	
Allowable voltage	±10% rated voltage	
Power consumption	AC:4.9VA(60Hz) / DC:2.5W	

DIMENSIONS (mm)

2position / 5port single(Grommet type)



SV3130-□□□V-G-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

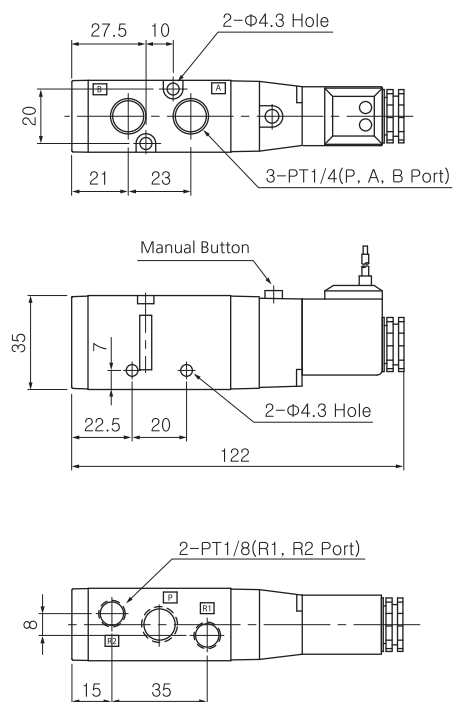
SMVF350

SFVM

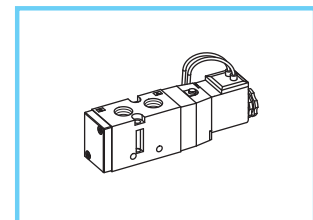
SHV

CAUTION

2position / 5port single(Lamp type)



SV3130-□□□V-GL-...

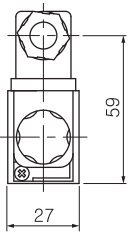
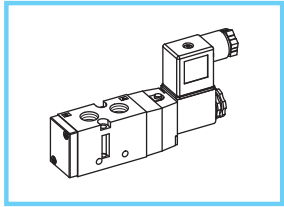
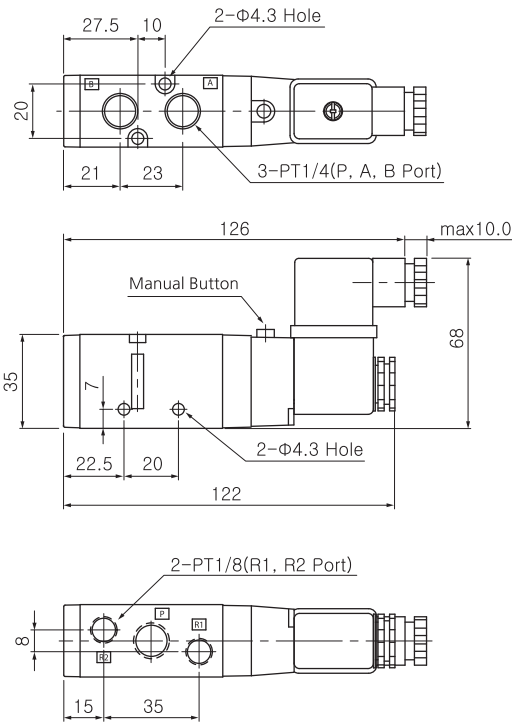


Series SV3000

DIMENSIONS (mm)

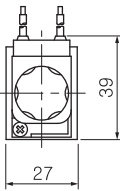
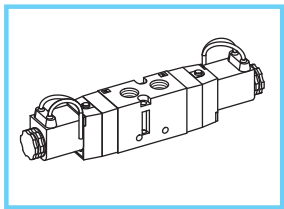
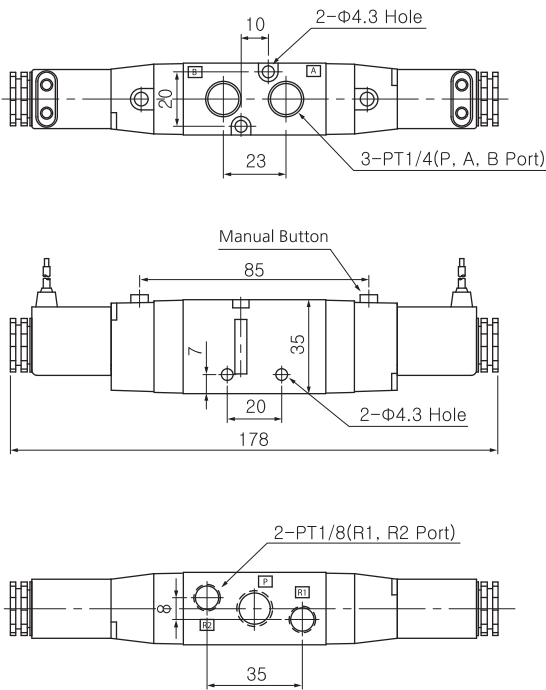
2position / 5port single(Connector type)

SV3130-□□□V-C□-...



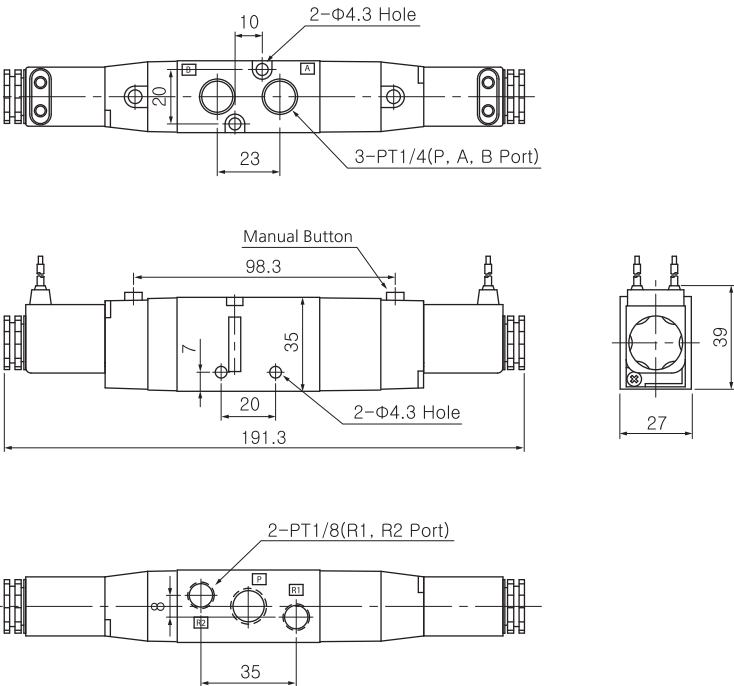
2position / 5port double(Grommet type)

SV3230-□□□V-G...

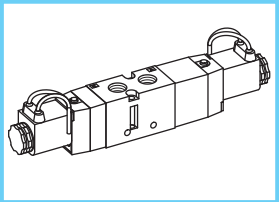


DIMENSIONS (mm)

3position / 5port double(Grommet type)



SV3330-□□□V-G-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

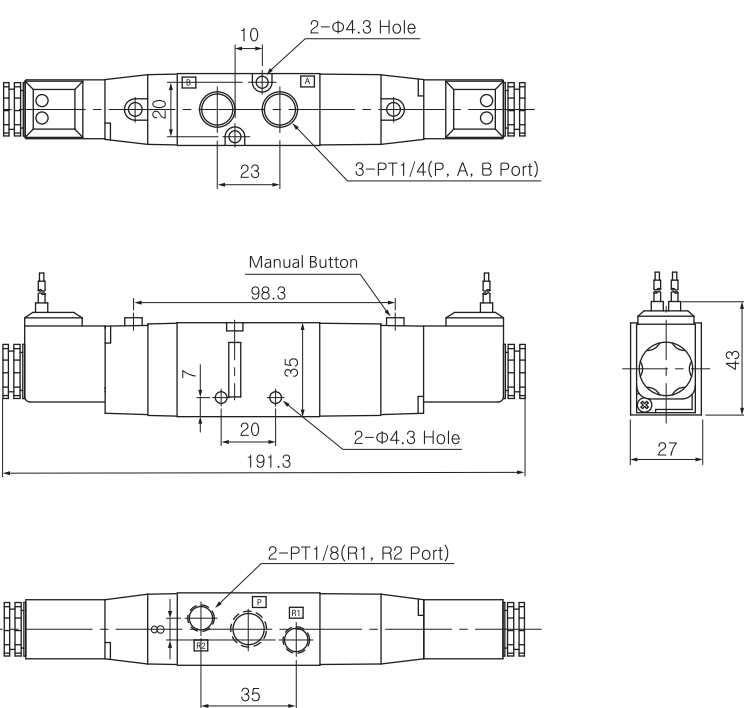
SMVF350

SFVM

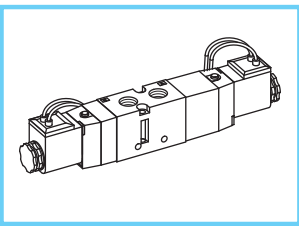
SHV

CAUTION

3position / 5port double(Lamp type)



SV3330-□□□V-GL-...

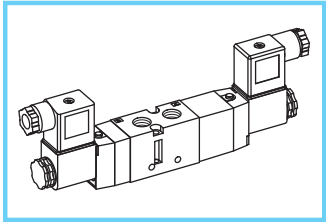
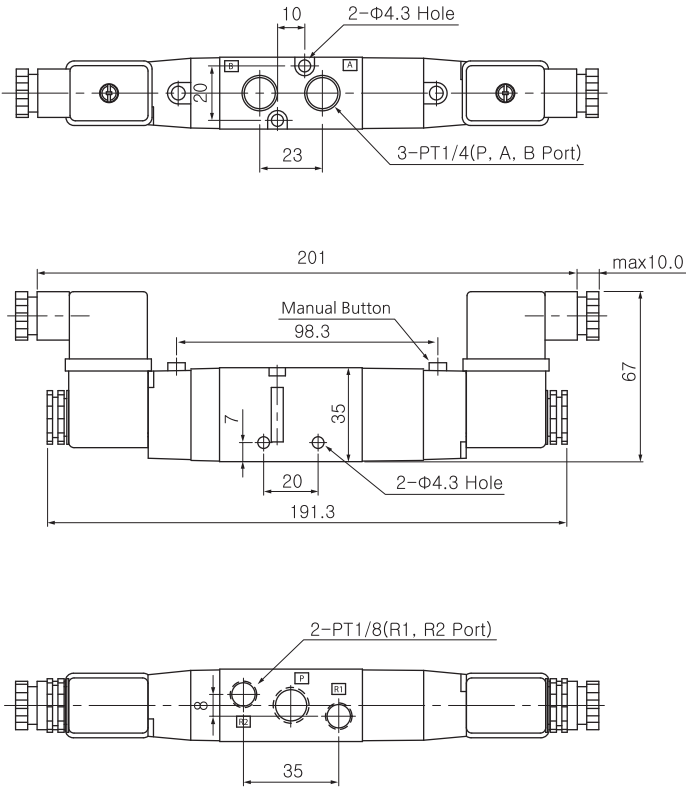


Series SV3000

DIMENSIONS (mm)

3position / 5port double(Connector type)

SV3330-□□□V-C□-...



5port Pilot Operated Solenoid Valve (SV)

SV5000 Series (Rc(PT) 3/8)

- 32.0mm Body width
- Transition Flow 2000 l/min (5bar)



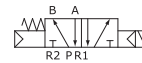
How to order

SV 5 1 30-220V - GL - P - 03

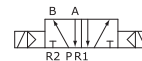
- ① Solenoid valve
- ② **Function**
 - 1 - 2 position single
 - 2 - 2 position double
 - 3 - 3 position Closed Center
 - 4 - 3 position Exhaust Center
 - 5 - 3 position Pressure Center
- ③ **Coil Rate Voltage**
 - 220V - AC 220V
 - 110V - AC 110V
 - 24V - AC 24V
 - D24V - DC 24V
- ④ **Coil Type**
 - Nil - Without Coil
 - G - Flying Leads (Grommet)
 - GL - Flying Leads with LED lamp (Grommet)
 - C - 3 Pin coil + Connector
 - CL - 3 Pin coil + LED lamp Connector
- ⑤ **Manual Operator**
 - P - Push Button
- ⑥ **Thread Type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
- ⑦ **Port Size**
 - 03 - Rc(PT) 3/8

Symbol

2 Position Single



2 Position Double



3 Position Closed Center



3 Position Exhaust Center



3 Position Pressure Center



Specification

Function	5port 2position	5port 3position
Fluid	Compressed air	
Ambient and Media temp.	5 ~ 60°C	
Max. operating pressure	1.5~10bar	2~10bar
Eff. Sectional Area(5bar)	36mm ²	30mm ²
Response time(5bar)	30ms or less	40ms or less
Max. operating frequency	5c/sec	3c/sec
Lubrication	Not required	
Manual override	Push button	
Coil insulation	F-Class or Equivalent	
Allowable voltage	±10% rated voltage	
Power consumption	AC:4.9VA(60Hz) / DC:2.5W	

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

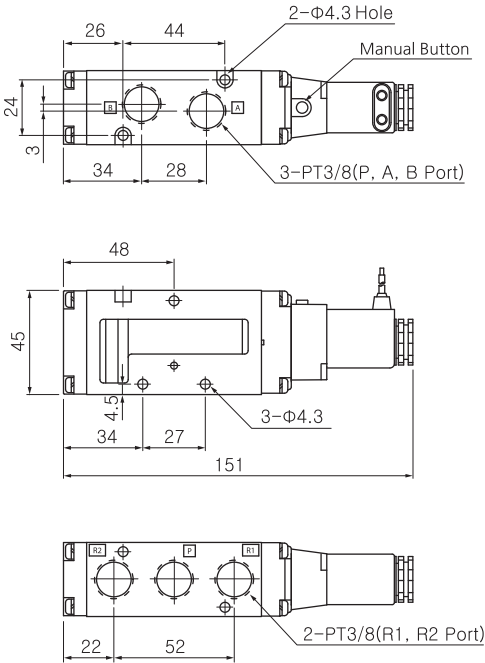
SHV

CAUTION

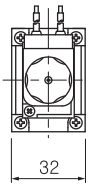
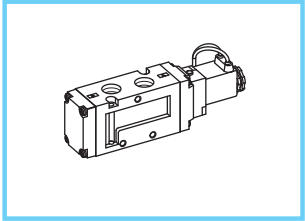
Series SV5000

DIMENSIONS (mm)

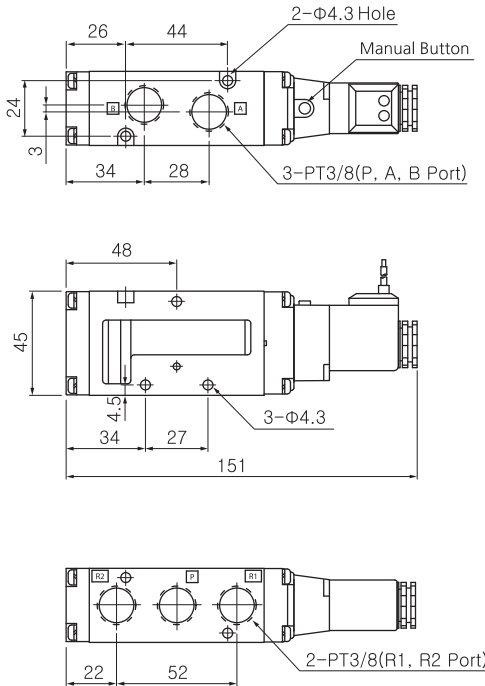
2position / 5port single(Grommet type)



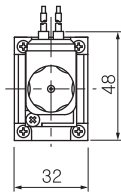
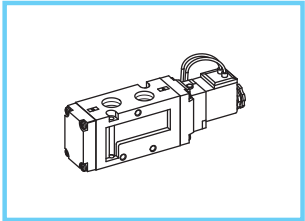
SV5130-□□□V-G-...



2position / 5port single(Lamp type)

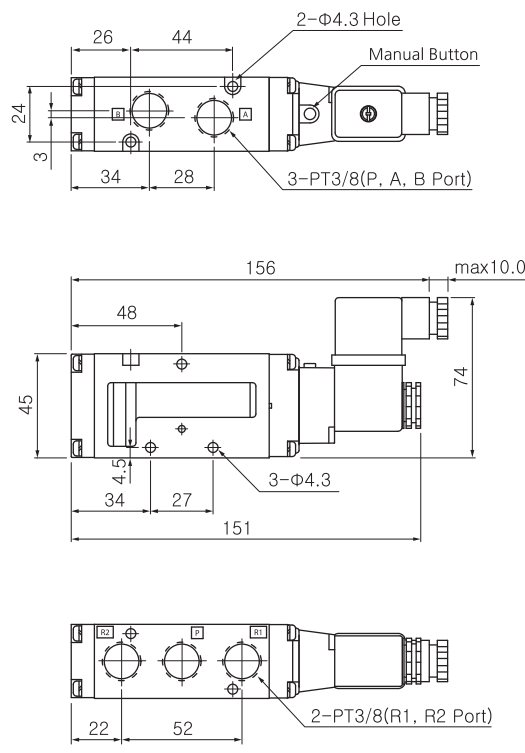


SV5130-□□□V-GL-...

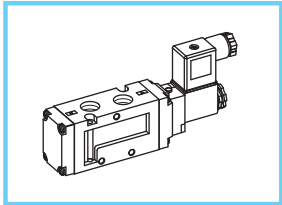


DIMENSIONS (mm)

2position / 5port single(Connector type)



SV5130-□□□V-C□-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

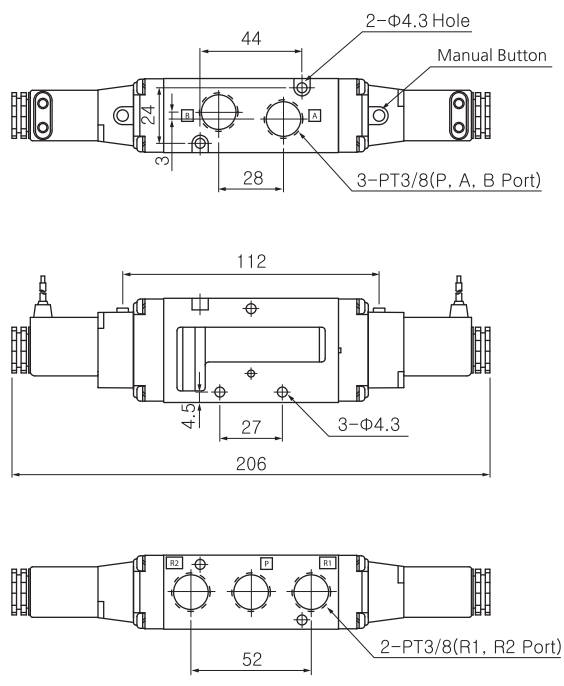
SMVF350

SFVM

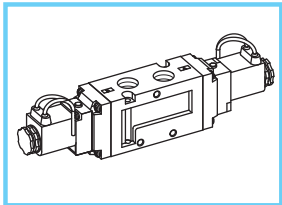
SHV

CAUTION

2position / 5port double(Grommet type)



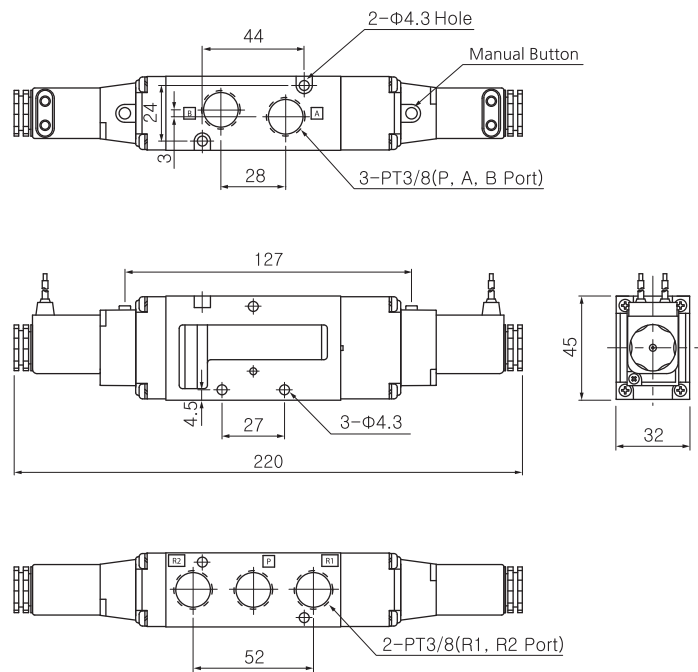
SV5230-□□□V-G-...



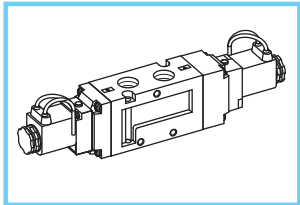
Series SV5000

DIMENSIONS (mm)

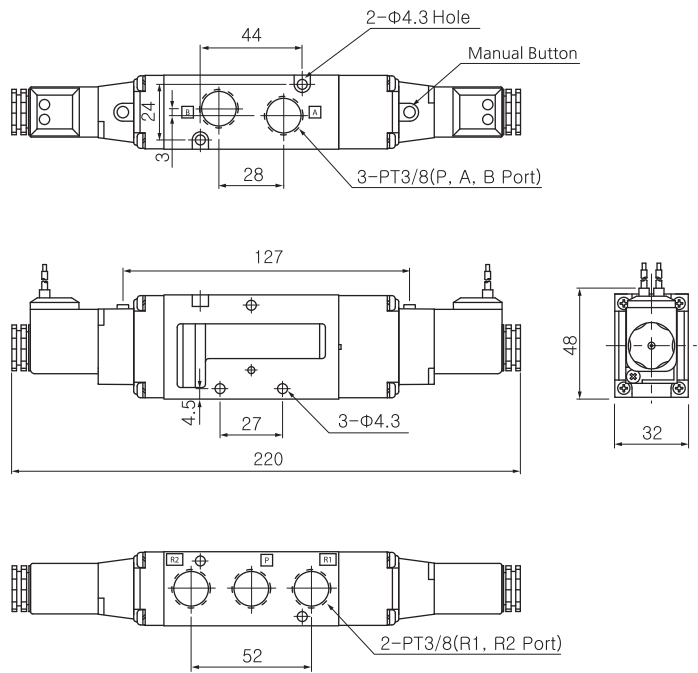
3position / 5port double(Grommet type)



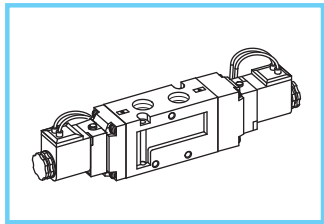
SV5330-□□□V-G-...



3position / 5port double(Lamp type)

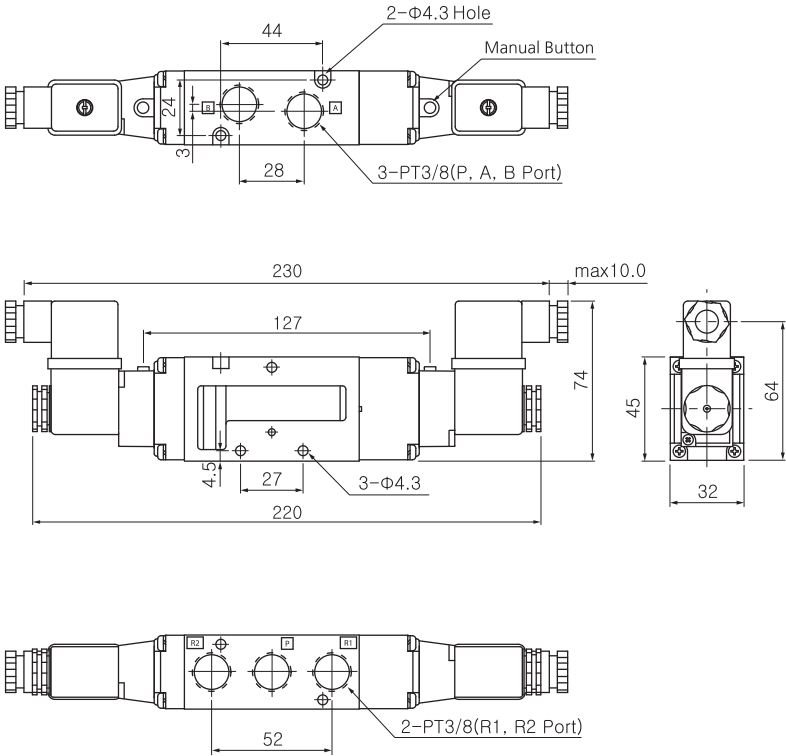


SV5330-□□□V-GL-...

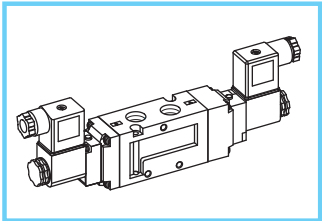


DIMENSIONS (mm)

3position / 5port double(Connector type)



SV5330-□□□V-C□-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

5port Pilot Operated Solenoid Valve (SV)

SV6000 Series (Rc(PT) 1/2)

- 36.0mm Body width
- Transition Flow 3500 l/min (5bar)

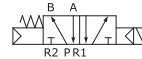


How to order

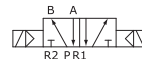
- SV 6 1 30-220V-GL-P-04**
- ① Solenoid valve
 - ② **Function**
 - 1 - 2 position single
 - 2 - 2 position double
 - 3 - 3 position Closed Center
 - 4 - 3 position Exhaust Center
 - 5 - 3 position Pressure Center
 - ③ **Coil Rate Voltage**
 - 220V - AC 220V
 - 110V - AC 110V
 - 24V - AC 24V
 - D24V - DC 24V
 - ④ **Coil Type**
 - Nil - Without Coil
 - G - Flying Leads (Grommet)
 - GL - Flying Leads with LED lamp(Grommet)
 - C - 3 Pin coil + Connector
 - CL - 3 Pin coil + LED lamp Connector
 - ⑤ **Manual Operator**
 - P - Push Button
 - ⑥ **Thread Type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
 - ⑦ **Port Size**
 - 04 - Rc(PT) 1/2

Symbol

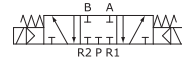
2 Position Single



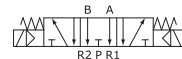
2 Position Double



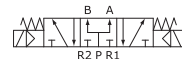
3 Position Closed Center



3 Position Exhaust Center



3 Position Pressure Center

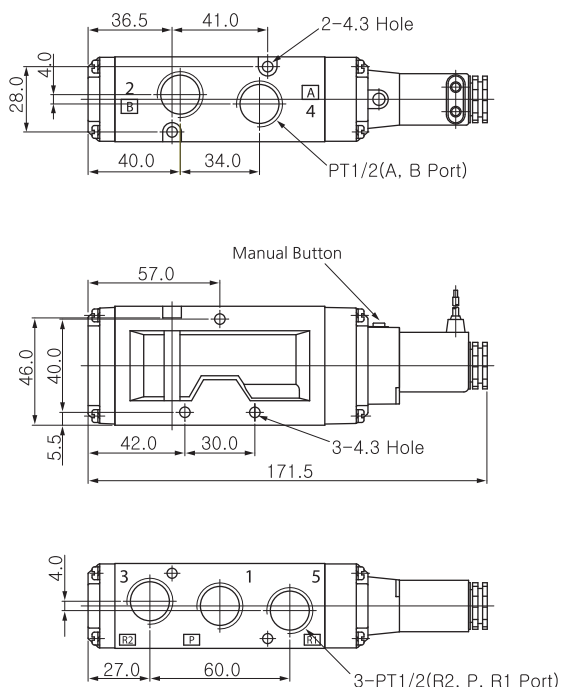


Specification

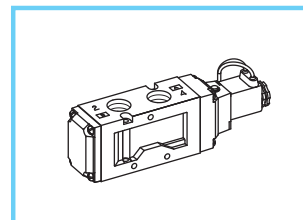
Function	5port 2position	5port 3position
Fluid	Compressed air	
Ambient and Media temp.	5~60℃	
Max. operating pressure	1.5~10bar	2~10bar
Eff. Sectional Area(5bar)	65mm ²	50mm ²
Response time(5bar)	30ms or less	40ms or less
Max. operating frequency	2c/sec	1c/sec
Lubrication	Not required	
Manual override	Push button	
Coil insulation	F-Class or Equivalent	
Allowable voltage	±10% rated voltage	
Power consumption	AC:4.9VA(60Hz) / DC:2.5W	

DIMENSIONS (mm)

2position / 5port single(Grommet type)



SV6130-□□□V-G-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

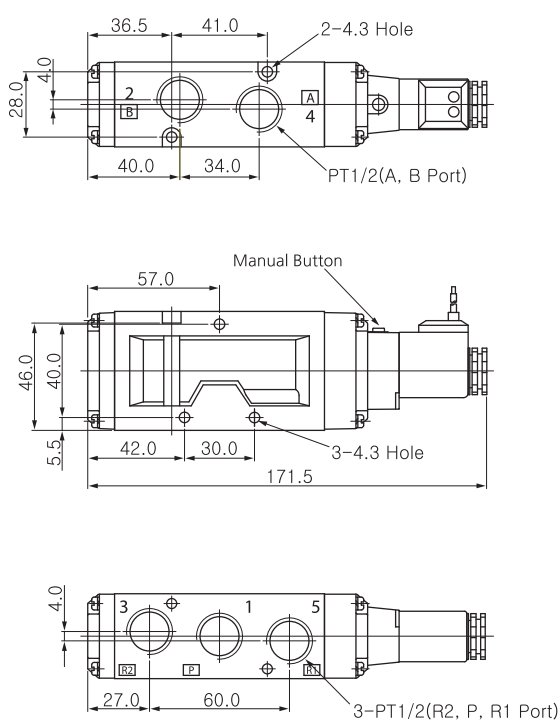
SMVF350

SFVM

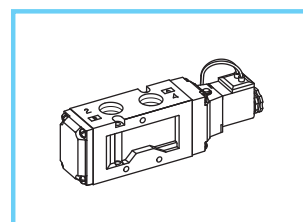
SHV

CAUTION

2position / 5port single(Lamp type)



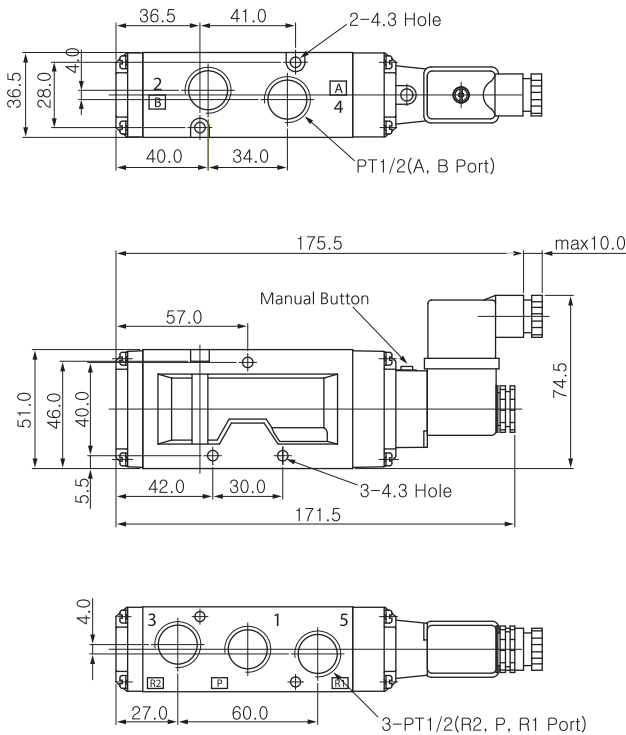
SV6130-□□□V-GL-...



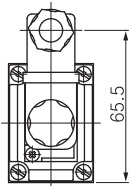
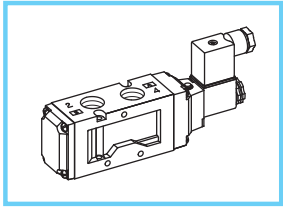
Series SV6000

DIMENSIONS (mm)

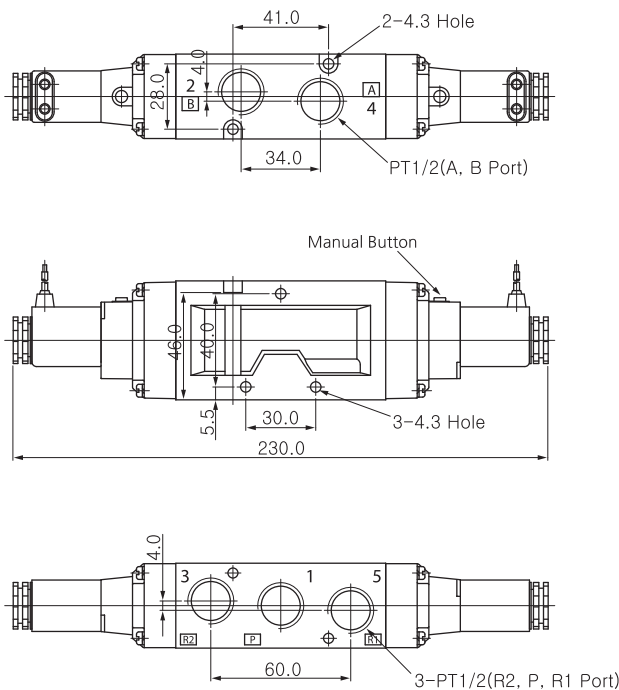
2position / 5port single(Connector type)



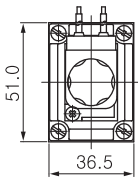
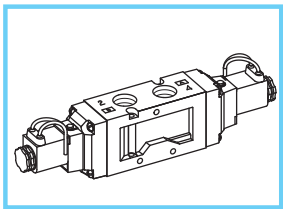
SV6130-□□□V-C□-...



2position / 5port double(Grommet type)

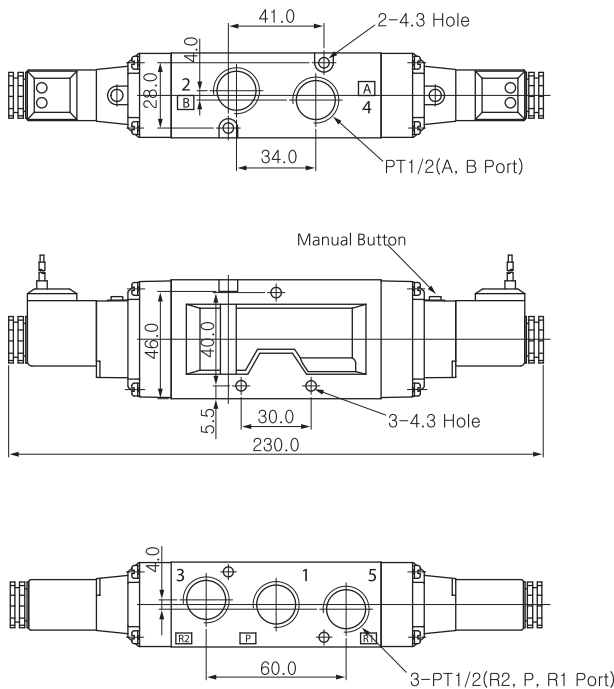


SV6230-□□□V-G-...

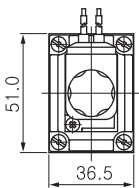
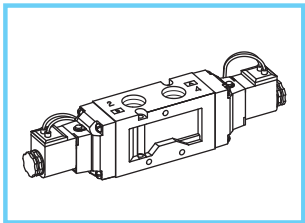


DIMENSIONS (mm)

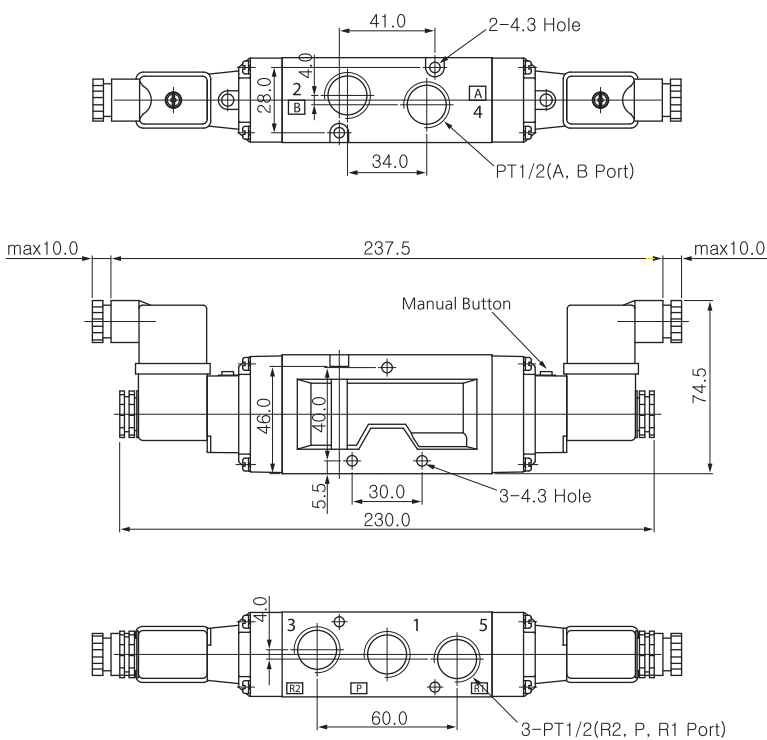
2position / 5port double(Lamp type)



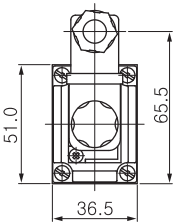
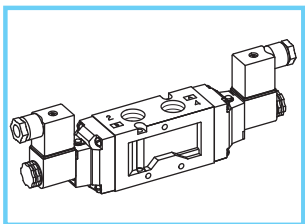
SV6230-□□□V-GL-...



2position / 5port double(Connector type)



SV6230-□□□V-C□-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

3port Pilot Operated Solenoid Valve (SV)

SV231~232 Series (Rc(PT) 1/4)

- 26.5mm Body width
- Transition Flow 1000 l/min (5bar)

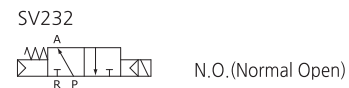


How to order

SV 23 1 - 110V - GL - P - 02

- ① Solenoid valve
- ② **Function**
 - 1 - Normal Close(N.C.)
 - 2 - Normal Open(N.O.)
- ③ **Coil Rate Voltage**
 - 220V - AC 220V
 - 110V - AC 110V
 - 24V - AC 24V
 - D24V - DC 24V
- ④ **Coil Type**
 - Nil - Without Coil
 - G - Flying Leads (Grommet)
 - GL - Flying Leads with LED lamp(Grommet)
 - C - 3 Pin coil + Connector
 - CL - 3 Pin coil + LED lamp Connector
- ⑤ **Manual Operator**
 - P - Push Button
- ⑥ **Thread Type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
- ⑦ **Port Size**
 - 02 - Rc(PT) 1/4

Symbol

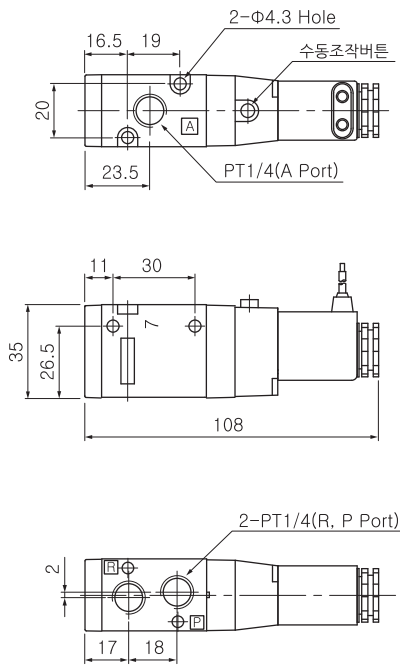


Specification

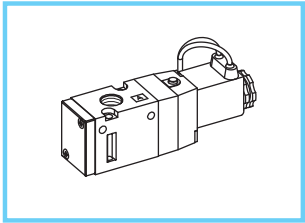
Fluid	Compressed air
Ambient and Media temp.	5~60℃
Max. operating pressure	1.5~10bar
Eff. Sectional Area(5bar)	19mm ²
Response time(5bar)	25ms or less
Max. operating frequency	5c/sec
Lubrication	Not required
Manual override	Push button
Coil insulation	F-Class or Equivalent
Allowable voltage	±10% rated voltage
Power consumption	AC:4.9VA(60Hz) / DC:2.5W

DIMENSIONS (mm)

2position / 3port (Grommet type)



SV23□-□□□V-G-...



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

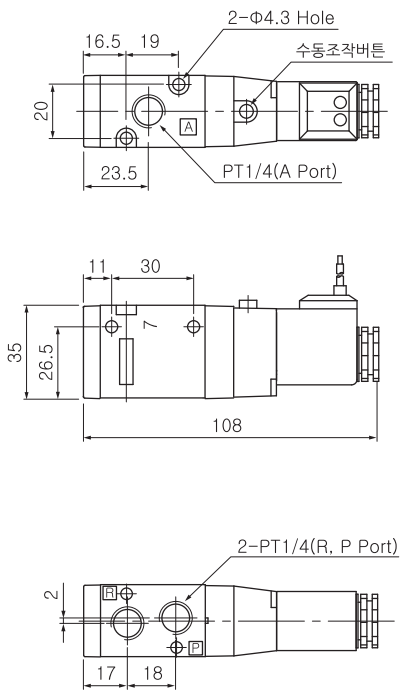
SMVF350

SFVM

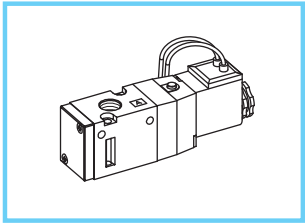
SHV

CAUTION

2position / 3port (Lamp type)



SV23□-□□□V-GL-...

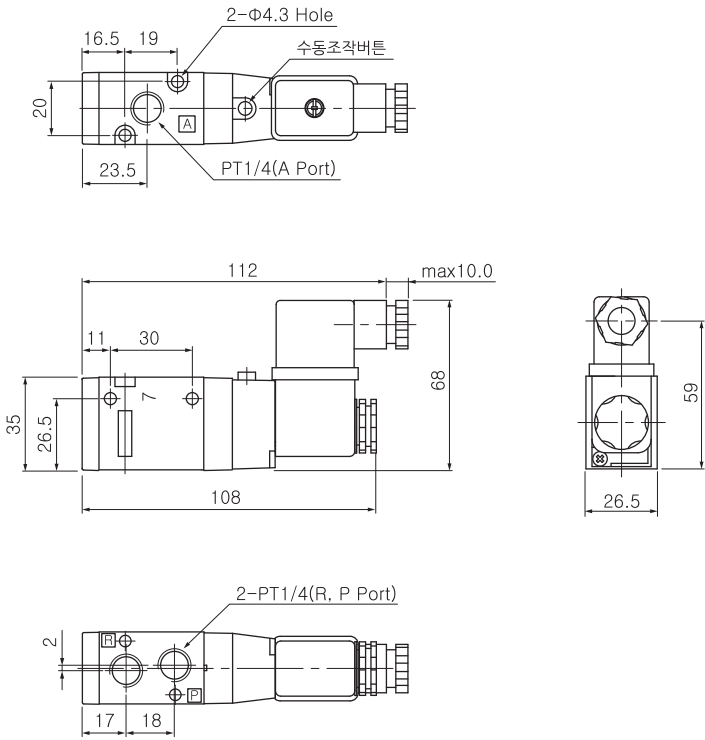
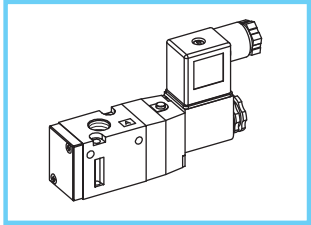


Series SV231~232

DIMENSIONS (mm)

2position / 3port (Connector type)

SV23□-□□□V-C□-...



Solenoid Coil Series



How to order

SL3 - A2

① Coil type

- SG1 - 15mm - Grommet / Flying Leads
- SC1 - 15mm - 3 Pin Connector Coil
- SCN1 - 15mm - 3 Pin Connector Coil + Connector
- SCL1 - 15mm - 3 Pin Connector Coil + Connector with LED
- SG3 - 22mm - Grommet / Flying Leads
- SL3 - 22mm - Grommet / Flying Leads with LED
- SC3 - 22mm - 3 Pin Connector Coil
- SCN3 - 22mm - 3 Pin Connector Coil + Connector
- SCL3 - 22mm - 3 Pin Connector Coil + Connector with LED

② Voltage

- A1 - AC 110V
- A2 - AC 220V
- A4 - AC 24V
- D4 - DC 24V

Specification

Model			SG1, SC1	SG3, SL3, SC3
Voltage Tolerances			±10% of Rated Voltage	
Coil Insulation Class			F-Class or Equivalent	
Ambient and Media temp.			5~60℃	
Holding Power	AC	60Hz	3.6VA	4.9VA
		50Hz	4.6VA	6.0VA
	DC		2.5W	2.5W

Material

- Molding : Glass Pressure Nylon
- Lead Wire : AWG-no.22, no.24
- Lead Wire Packing : Viton
- Yoke : Carbon Iron
- Indicator Cap : Polycarbonate

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

Coil Connector Series

- with 15mm Coil width
- with 22mm Coil width



How to order

CN1 - A2

① Connector type

CN1 - 15mm - 3Pin Normal Connector
CL1 - 15mm - 3Pin Connector with LED
CN3 - 22mm - 3Pin Normal Connector
CL3 - 22mm - 3Pin Connector with LED

② Voltage

A1 - AC 110V
A2 - AC 220V
A4 - AC 24V
D4 - DC 24V

Specification

Voltage Tolerances	±10% of Rated Voltage
Ambient and Media temp.	5~60℃
Max.Current	2.5A
Protection Class	IP65(With Coil)

Material

- Indicator : Glass Pressure Nylon, Polycarbonate
- Sealing Packing : NBR
- Jointing Bolt : Carbon Iron

Mechanical Valve (SMV)

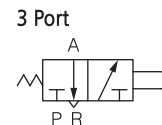
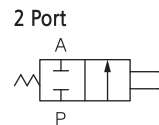
SMV100 Series (Rc(PT) 1/8)



How to order

- SMV 1 2 0 - 01 - 00**
- ① Mechanical Valve
 - ② **Number of Port**
 - 2 - 2 Port
 - 3 - 3 Port(include "exhaust hole")
 - ③ **Rod size**
 - 0 - Standard
 - 1 - For Roller Lever
 - ④ **Thread type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
 - ⑤ **Port size**
 - 01 - 1/8
 - ⑥ **Type of Actuator**
 - 00 - Standard
 - 01 - Roller lever
 - 02 - One way roller lever
 - 30 - Push button(Mushroom type)
 - 32 - Push button(Flat type)
 - 34 - Selector(2position)

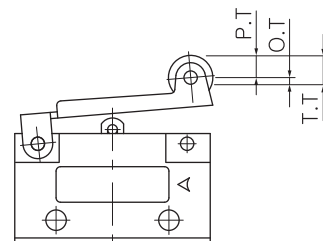
Symbol



Specification

Fluid	Compressed Air
Max. operating pressure	0~10bar (0~1MPa)
Ambient and Media temp.	-5 ~ 60°C (No freezing)
Effective orifice(Cv)	2.5mm ² (0.14)
Lubrication	Not required
Port size	1/8

Operating point of Mechanical valve



P.T.	From the free position to the operating position of actuator
O.T.	From the operating position to the operating limit of actuator
T.T.	From the free position to the operating limit of actuator

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

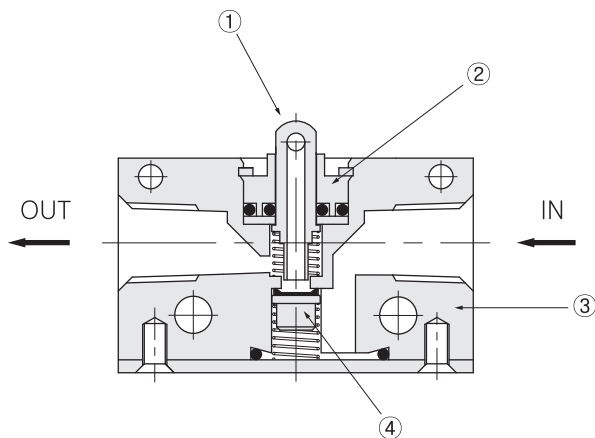
SHV

CAUTION

Series SMV100

STRUCTURE / PARTS

SMV 100



No.	PARTS	MATERIAL
①	Rod	A2011
②	Rod guide	Brass
③	Body	ALDC
④	Check valve	NBR

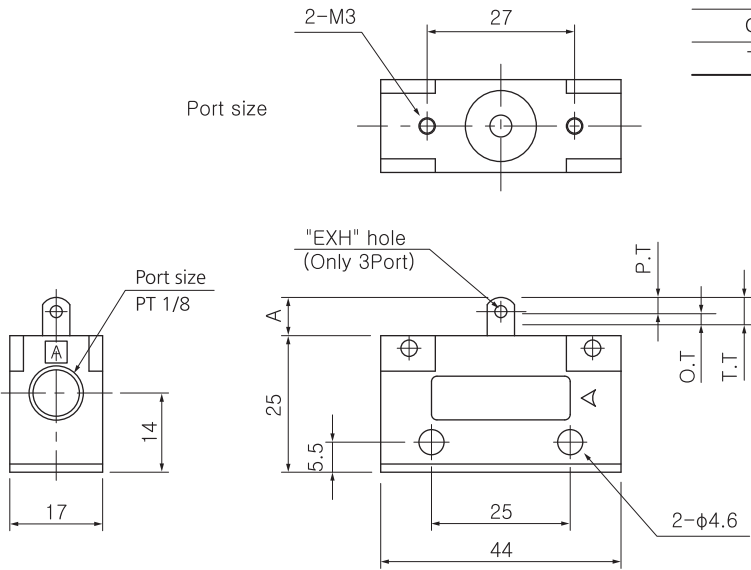
DIMENSIONS (mm)

SMV 120-01-00

121-01-00
130-01-00
131-01-00

Model	A
SMV120	7.5
SMV130	
SMV121	5.0
SMV131	

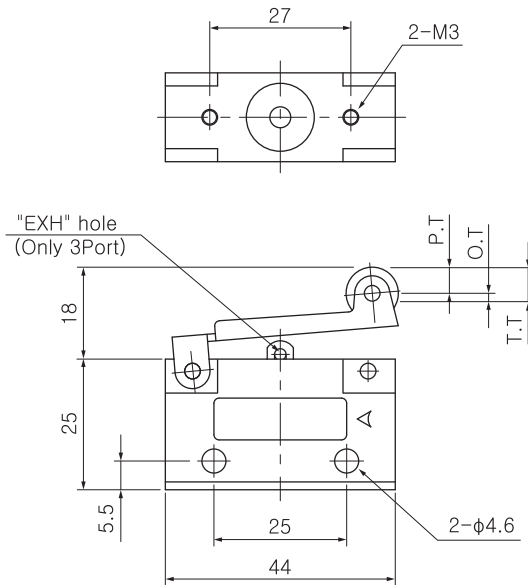
P.T.	1.1
O.T.	3
T.T.	4.1



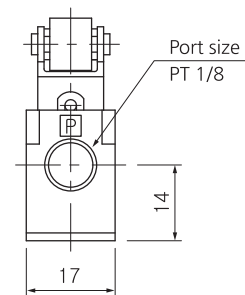
DIMENSIONS (mm)

SMV 121-01-01

131-01-01

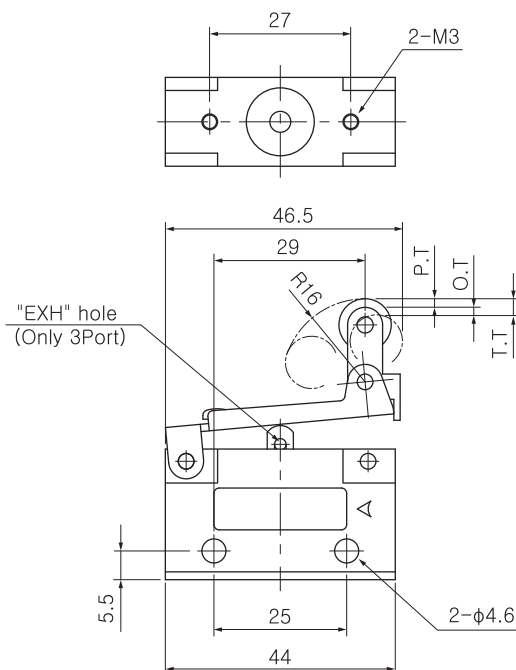


P.T.	2.1
O.T.	4
T.T.	6.1

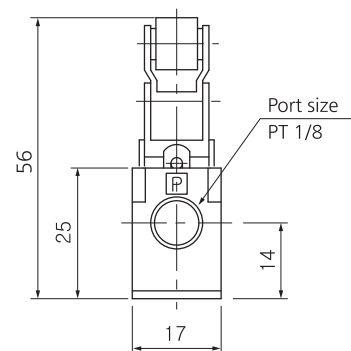


SMV 121-01-02

131-01-02



P.T.	2.1
O.T.	4
T.T.	6.1



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

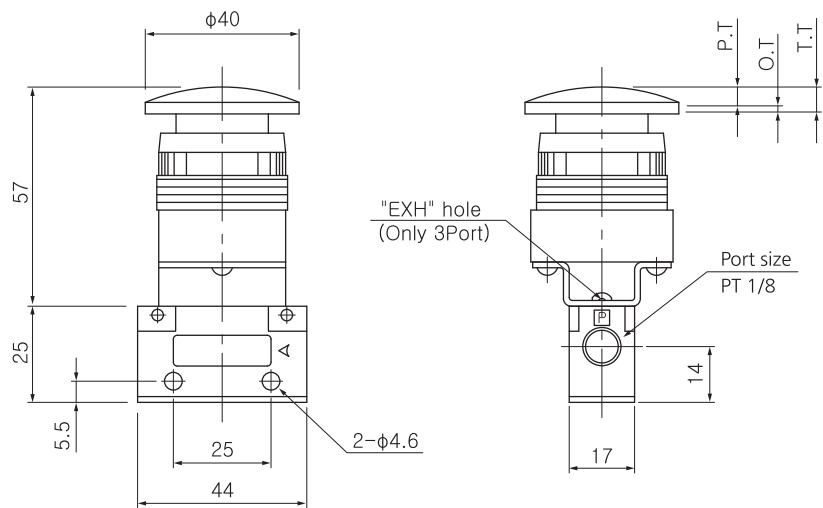
CAUTION

Series SMV100

DIMENSIONS (mm)

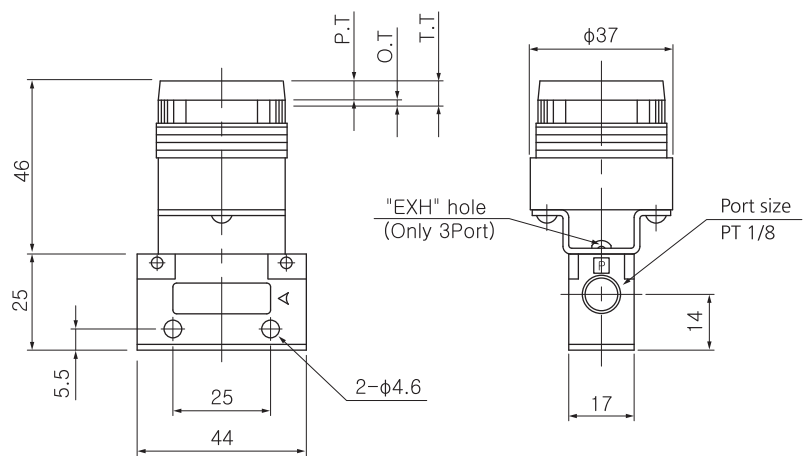
SMV 120-01-30
130-01-30

P.T.	5.4
O.T.	2.4
T.T.	7.8



SMV 120-01-32
130-01-32

P.T.	5.4
O.T.	2.4
T.T.	7.8

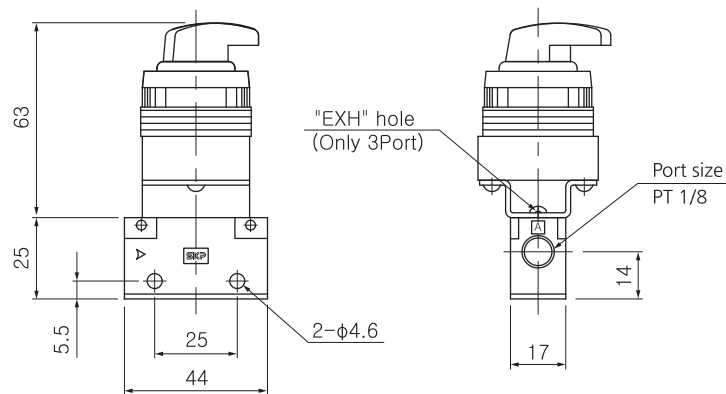
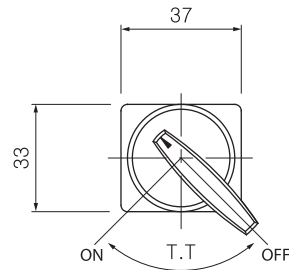


DIMENSIONS (mm)

SMV 120-01-34

130-01-34

T.T.	90°
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SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

Mechanical Valve (SMV)

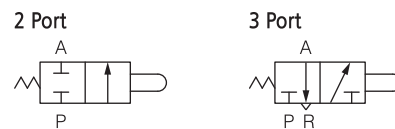
SMV200 Series (Rc(PT) 1/4)



How to order

- SMV 2 20 - 02 - 00**
- ① Mechanical Valve
 - ② Number of Port
 - 20 - 2 Port
 - 30 - 3 Port(include "exhaust hole")
 - ③ Thread type
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
 - ④ Port size
 - 02 - 1/4
 - ⑤ Type of Actuator
 - 00 - Standard
 - 01S - Roller lever(Bearing type)
 - 02S - One way roller lever(Bearing type)
 - 30 - Push button(Mushroom type)
 - 31 - Push button(ENG type)
 - 32 - Push button(Flat type)
 - 34 - Selector(2position)

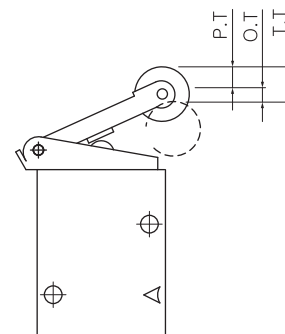
Symbol



Specification

Fluid	Compressed Air
Max. operating pressure	0~10bar (0~1MPa)
Ambient and Media temp.	-5 ~ 60℃ (No freezing)
Effective orifice(Cv)	19mm ² (1.0)
Lubrication	Not required
Port size	1/4

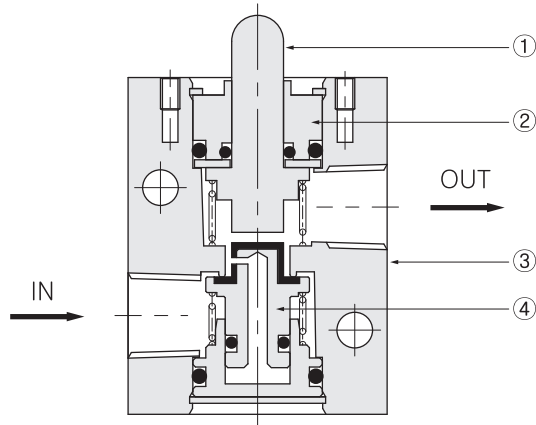
Operating point of Mechanical valve



P.T.	From the free position to the operating position of actuator
O.T.	From the operating position to the operating limit of actuator
T.T.	From the free position to the operating limit of actuator

STRUCTURE / PARTS

SMV 200



No.	PARTS	MATERIAL
①	Rod	A2011
②	Rod guide	Brass
③	Body	ALDC
④	Check valve	NBR

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

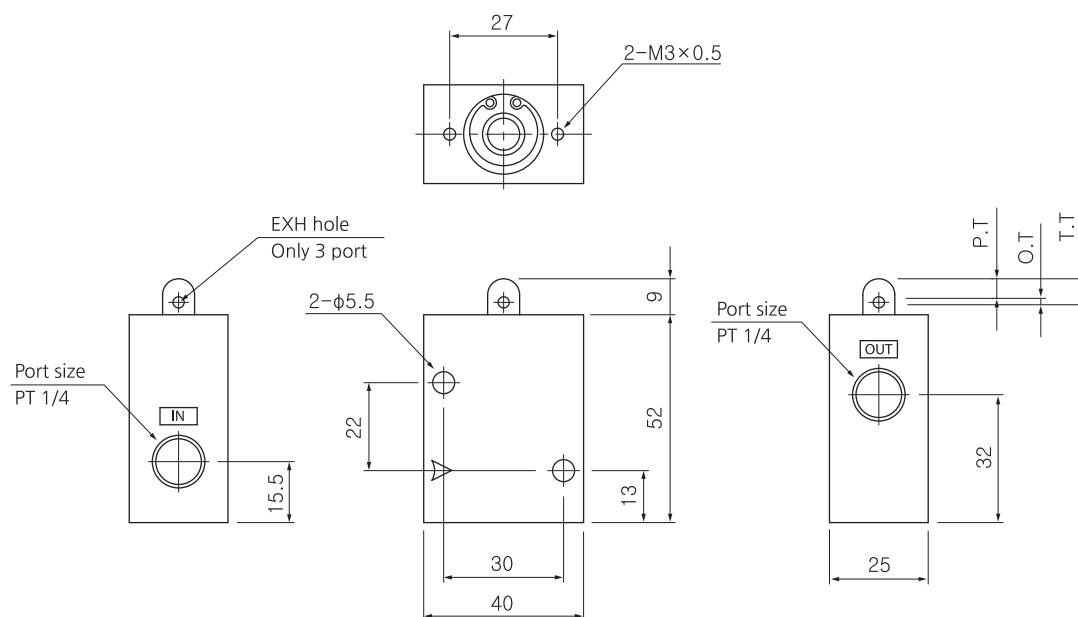
SHV

CAUTION

DIMENSIONS (mm)

SMV 220-02-00 230-02-00

P.T.	2.7
O.T.	3
T.T.	5.7



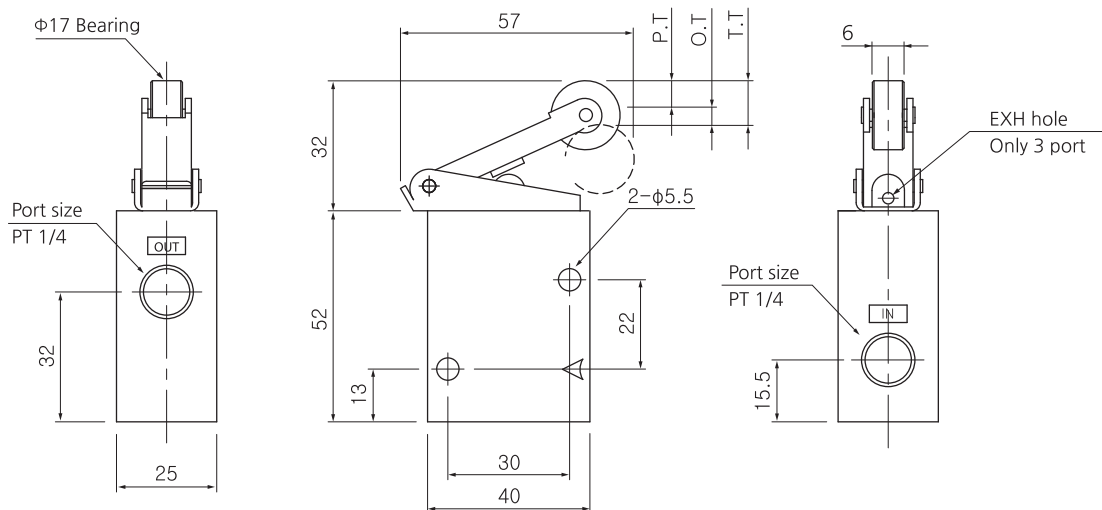
Series SMV200

DIMENSIONS (mm)

SMV 220-02-01S

230-02-01S

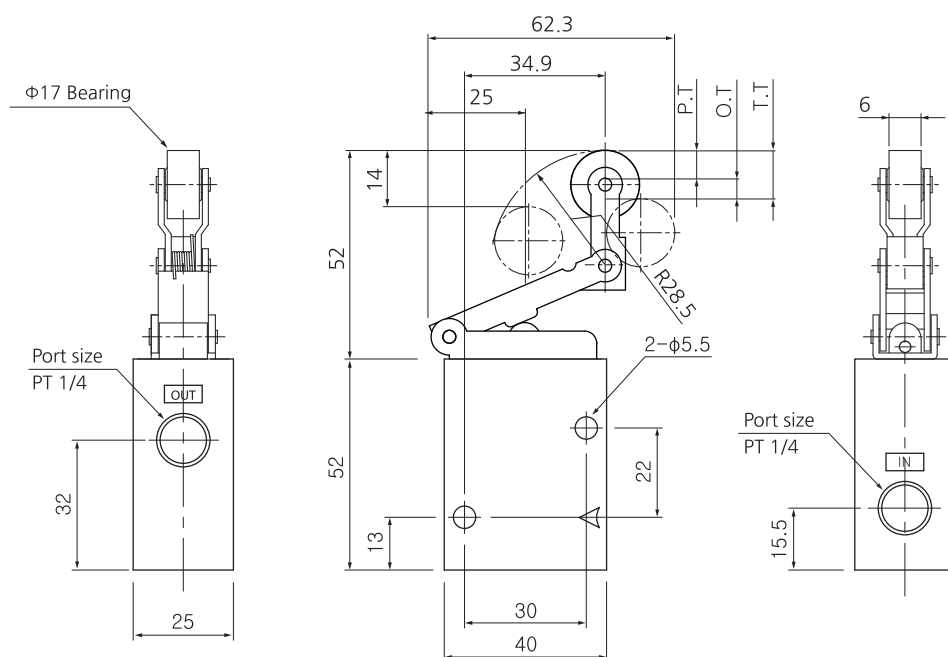
P.T.	5.8
O.T.	6.6
T.T.	12.4



SMV 220-02-02S

230-02-02S

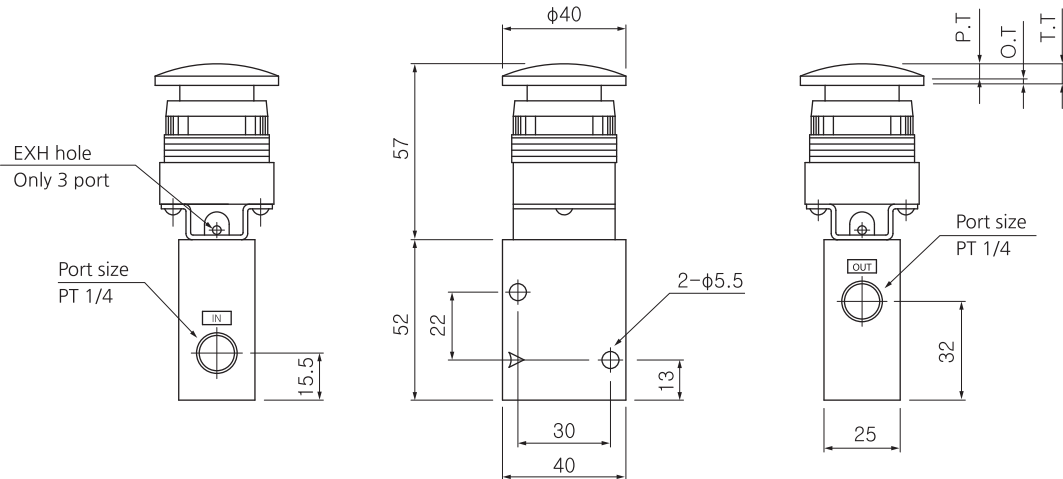
P.T.	5.8
O.T.	6.6
T.T.	12.4



DIMENSIONS (mm)

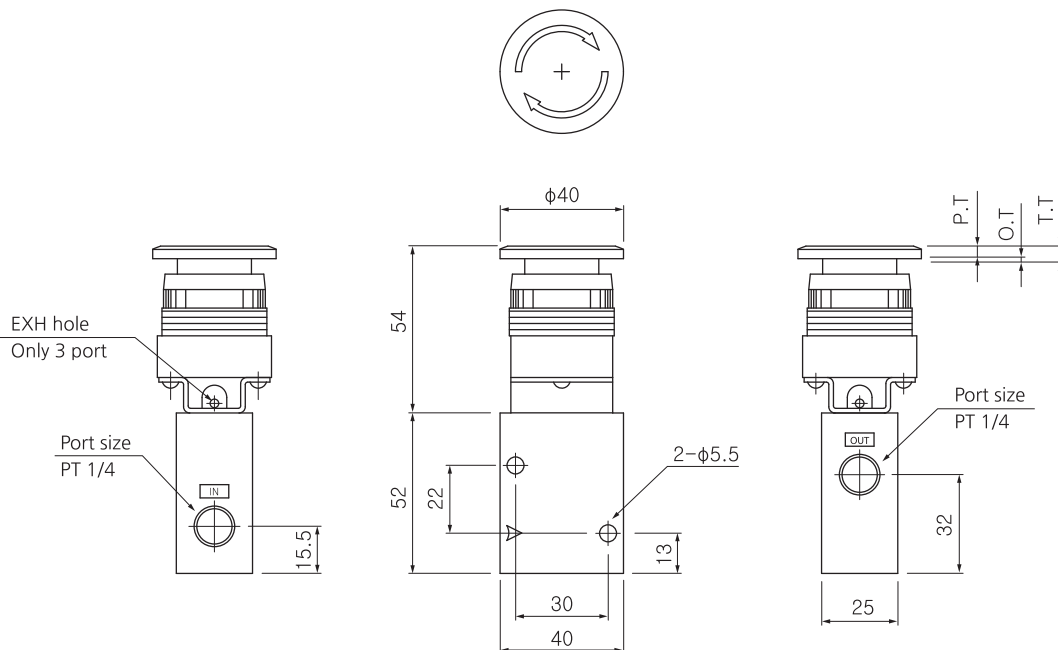
SMV 220-02-30 230-02-30

P.T.	4.7
O.T.	2.8
T.T.	7.5



SMV 220-02-31 230-02-31

T.T.	4.3
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SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

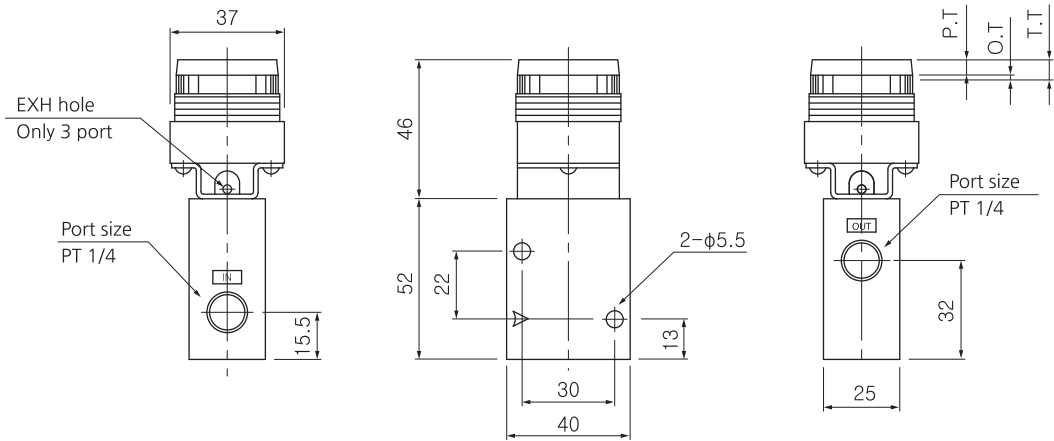
CAUTION

Series SMV200

DIMENSIONS (mm)

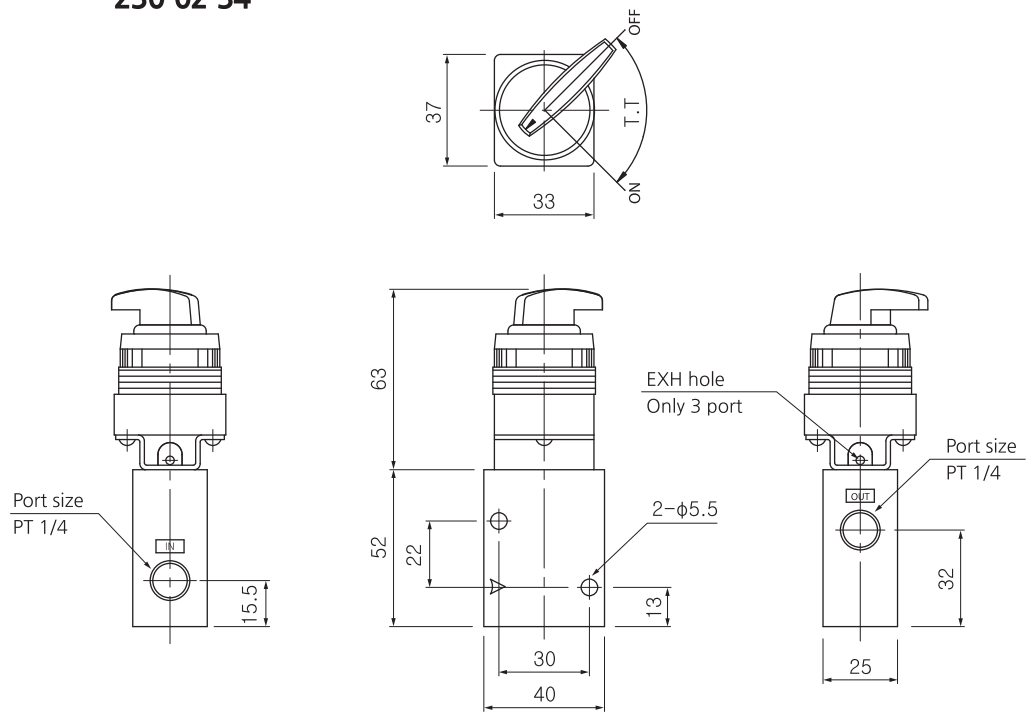
SMV 220-02-32
230-02-32

P.T.	4.7
O.T.	2.8
T.T.	7.5



SMV 220-02-34
230-02-34

T.T.	90°
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Spool type Mechanical Valve (SMVS)

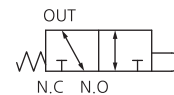
SMVS230 Series (Rc(PT) 1/4)



How to order

- SMVS 2 3 0 - 02 - 00**
- ① Spool type Mechanical Valve
 - ② Number of Port
3 - 3 Port
 - ③ Thread type
Nil - Rc(PT)
N - NPT
G - G(PF)
 - ④ Port size
01 - 1/4
 - ⑤ Type of Actuator
00 - Standard
01S - Roller lever(Bearing type)
02S - One way roller lever(Bearing type)
30 - Push button(Mushroom type)
31 - Push button(ENG type)
32 - Push button(Flat type)
34 - Selector(2position)

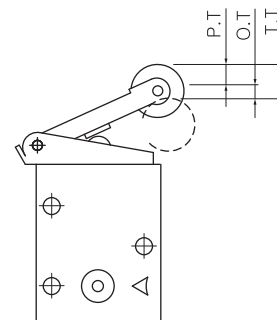
Symbol



Specification

Fluid	Compressed Air
Max. operating pressure	0~10bar (0~1MPa)
Ambient and Media temp.	-5~60°C (No freezing)
Lubrication	Not required
Port size	1/4

Operating point of Mechanical valve



P.T.	From the free position to the operating position of actuator
O.T.	From the operating position to the operating limit of actuator
T.T.	From the free position to the operating limit of actuator

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

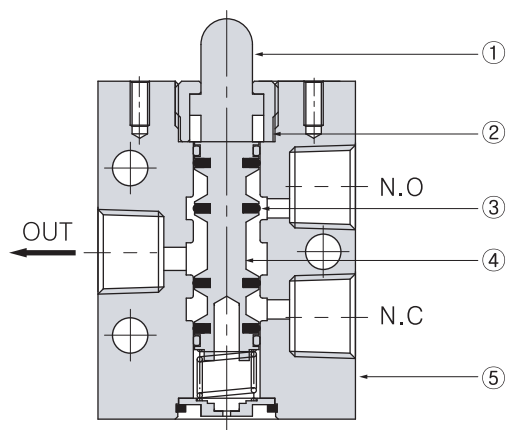
SHV

CAUTION

Series SMVS200

STRUCTURE / PARTS

SMVS 230

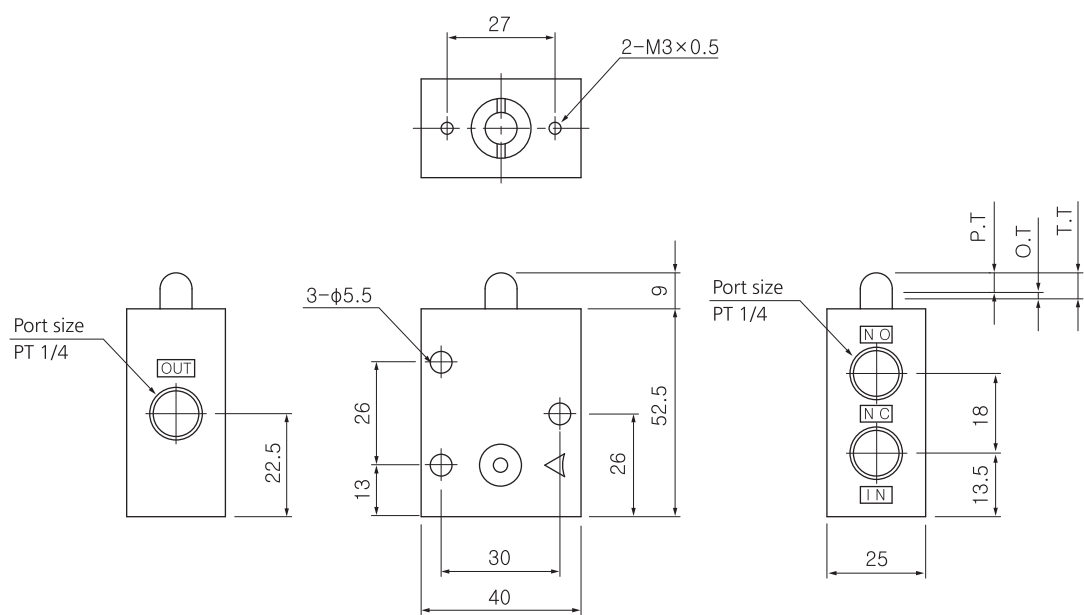


No.	PARTS	MATERIAL
①	Rod	SUS
②	Rod guide	Brass
③	I-ring	NBR
④	Spool	Al
⑤	Body	ALDC

DIMENSIONS (mm)

SMVS 230-02-00

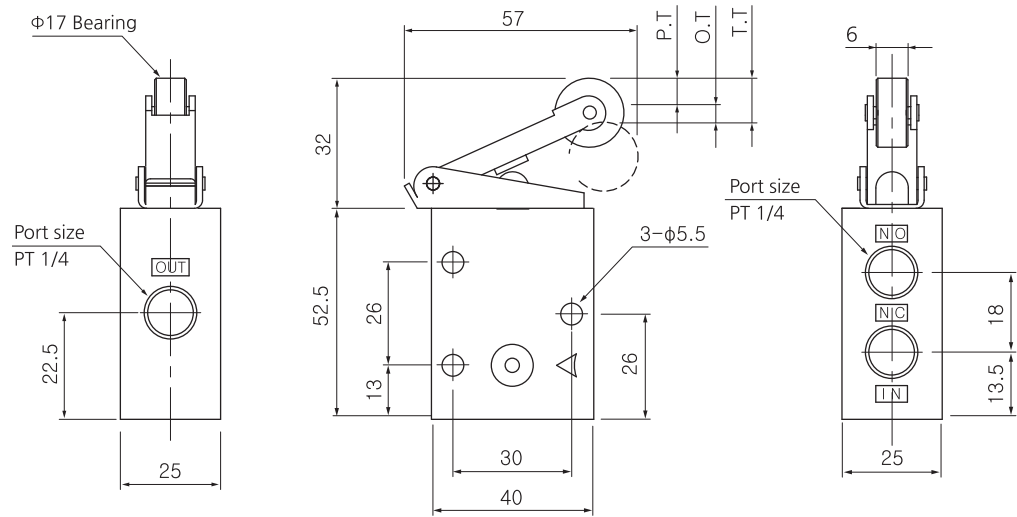
P.T.	1.8
O.T.	2.2
T.T.	4



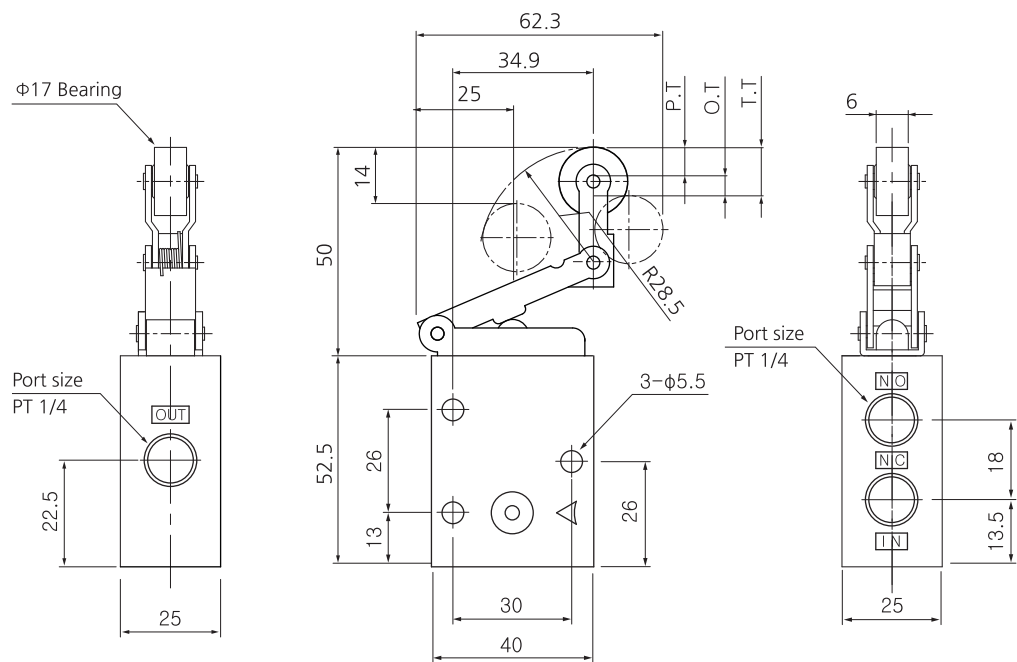
Spool type Mechanical Valve

DIMENSIONS (mm)

SMVS 230-02-01S



SMVS 230-02-02S



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

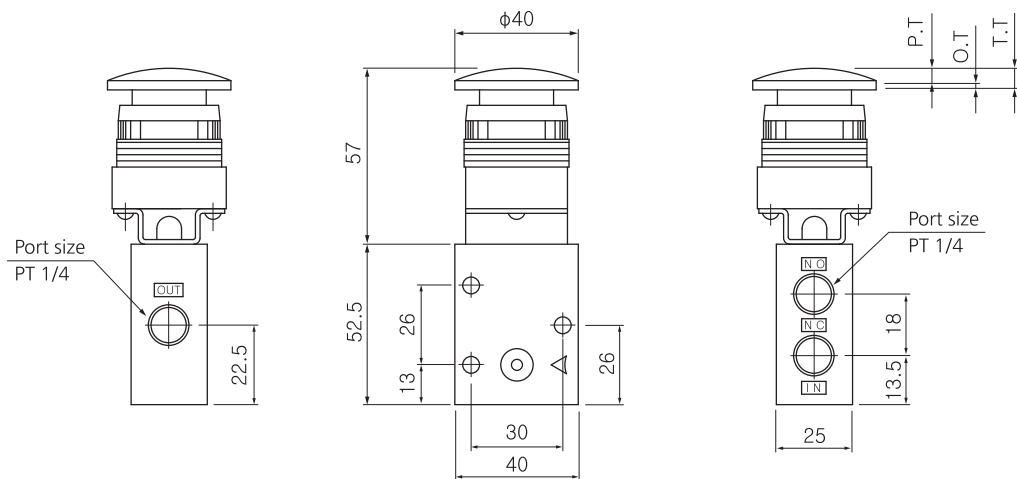
CAUTION

Series SMVS200

DIMENSIONS (mm)

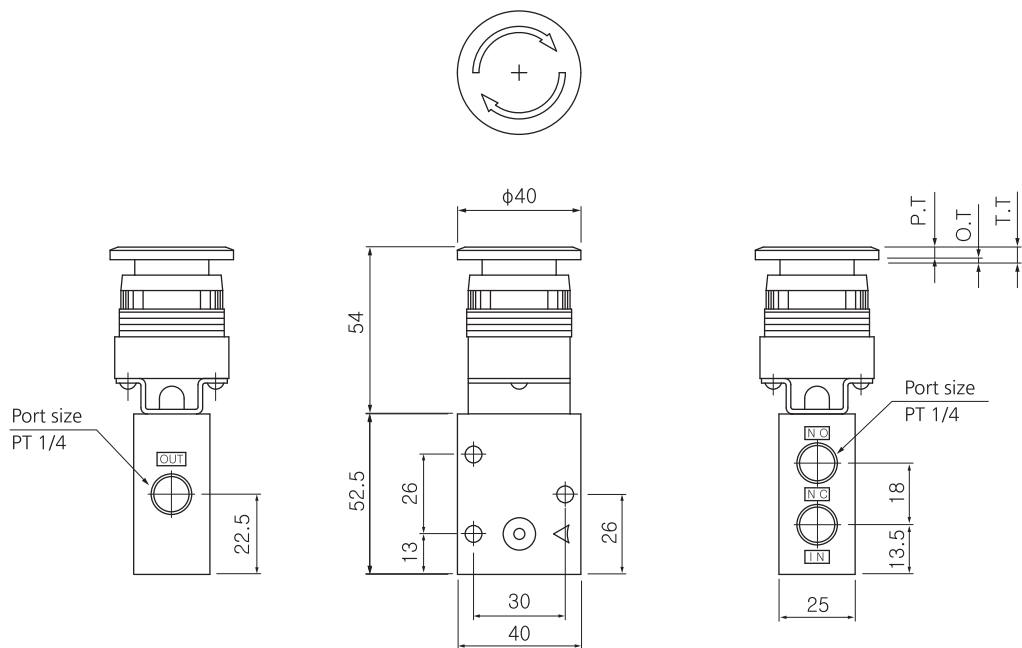
SMVS 230-02-30

P.T.	4.9
O.T.	1.6
T.T.	6.5



SMVS 230-02-31

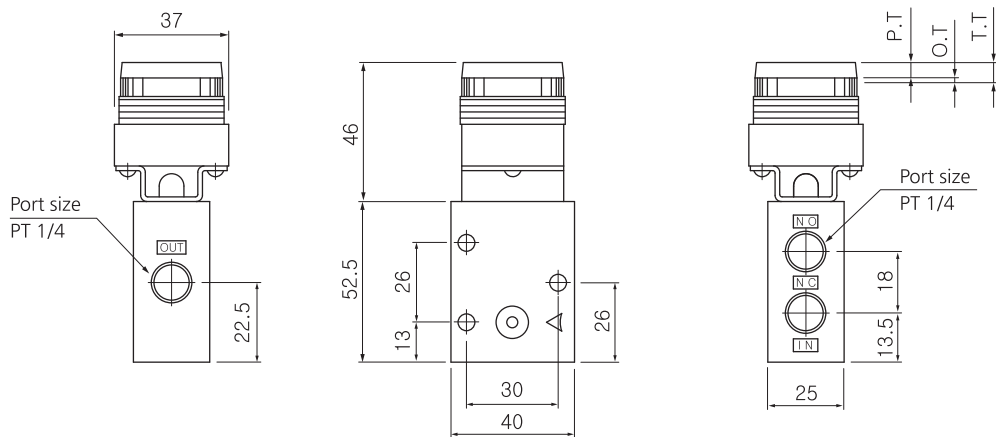
T.T.	4.3
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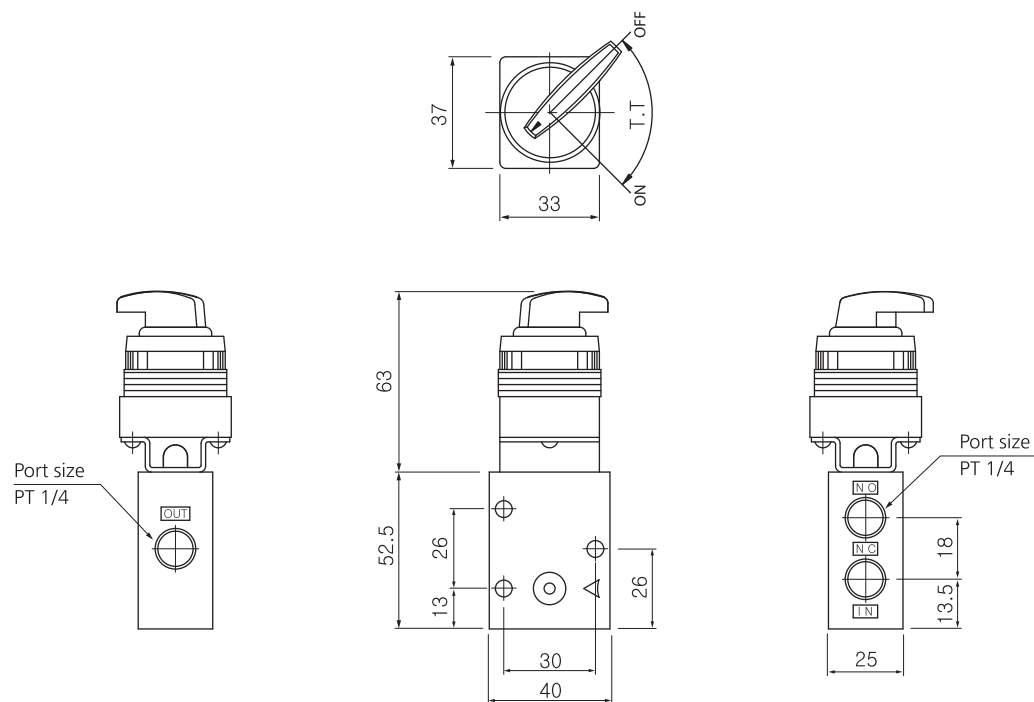
Spool type Mechanical Valve

DIMENSIONS (mm)

SMVS 230-02-32



SMVS 230-02-34



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

3port Pilot type Mechanical Valve (SMVF)

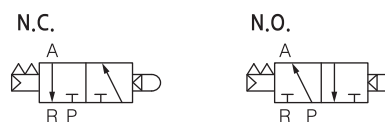
SMVF231~232 Series (Rc(PT) 1/4)



How to order

- SMVF 2 3 1 - 02 - 00**
- ① **Pilot type Mechanical Valve**
 - ② **Number of Port**
3 - 3 Port
 - ③ **Function**
1 - Nomal Close(N.C.)
2 - Nomal Open(N.O.)
 - ④ **Thread type**
Nil - Rc(PT)
N - NPT
G - G(PF)
 - ⑤ **Port size**
02 - 1/4
 - ⑥ **Type of Actuator**
00 - Standard
01 - Roller lever
01S - Roller lever(Bearing type)
02 - One way roller lever
02S - One way roller lever(Bearing type)
30 - Push button(Mushroom type)
32 - Push button(Flat type)
34 - Selector(2position)

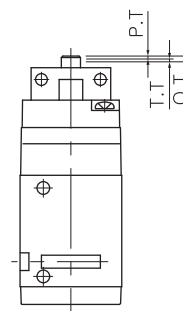
Symbol



Specification

Fluid	Compressed Air
Max. operating pressure	1.5~10bar (0.15~1MPa)
Ambient and Media temp.	-5~60℃ (No freezing)
Effective orifice(Cv)	19mm ² (1.0)
Lubrication	Not required
Port size	1/4

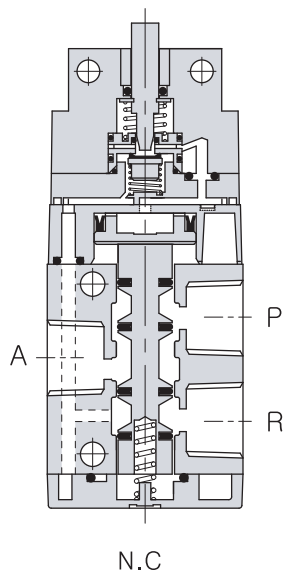
Operating point of Mechanical valve



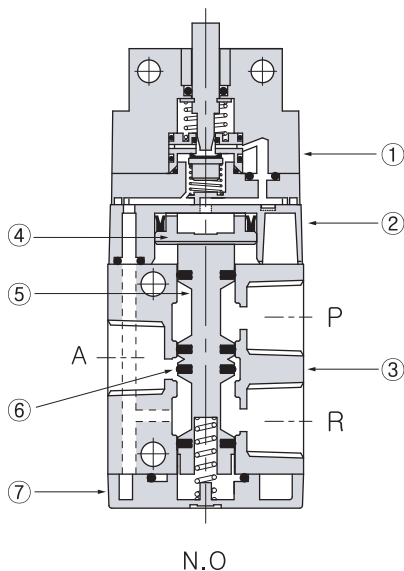
P.T.	From the free position to the operating position of actuator
O.T.	From the operating position to the operating limit of actuator
T.T.	From the free position to the operating limit of actuator

STRUCTURE / PARTS

SMVF 231



SMVF 232

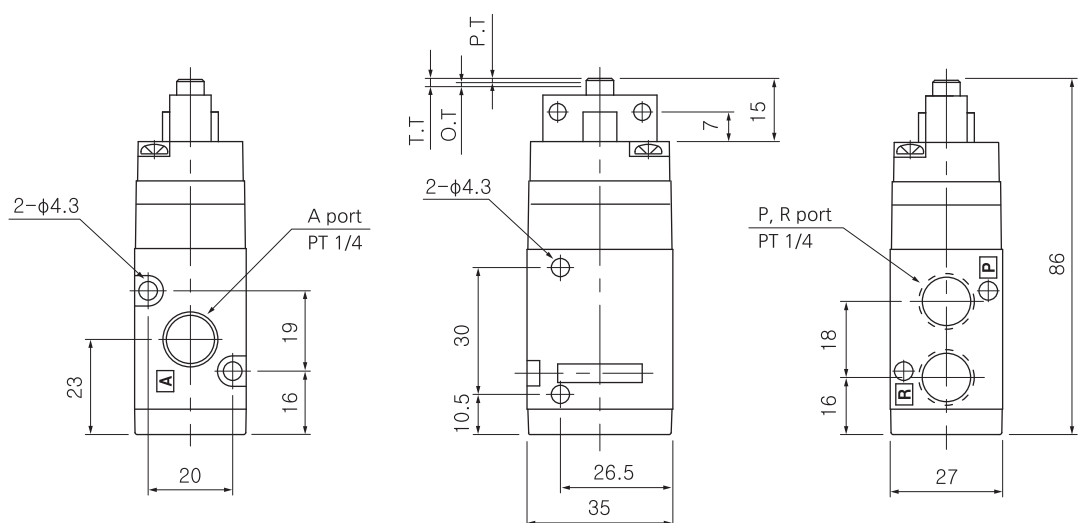


No.	PARTS	MATERIAL
①	Pilot guide	ZnDC
②	Pilot cylinder	N66G
③	Body	ALDC
④	Piston	POM
⑤	Spool	A2011
⑥	I-ring	NBR
⑦	Cover	ALDC

DIMENSIONS (mm)

SMVF 231-02-00

232-02-00



P.T.	1
O.T.	2
T.T.	3

Series SMVF231~232

DIMENSIONS (mm)

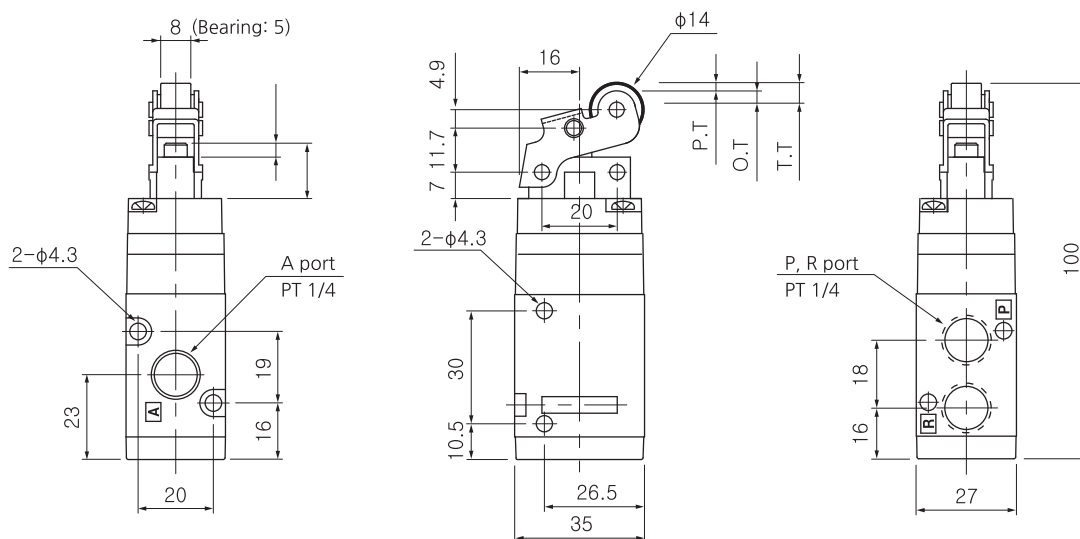
SMVF 231-02-01

232-02-01

231-02-01S

232-02-01S

P.T.	2.2
O.T.	4
T.T.	6.2



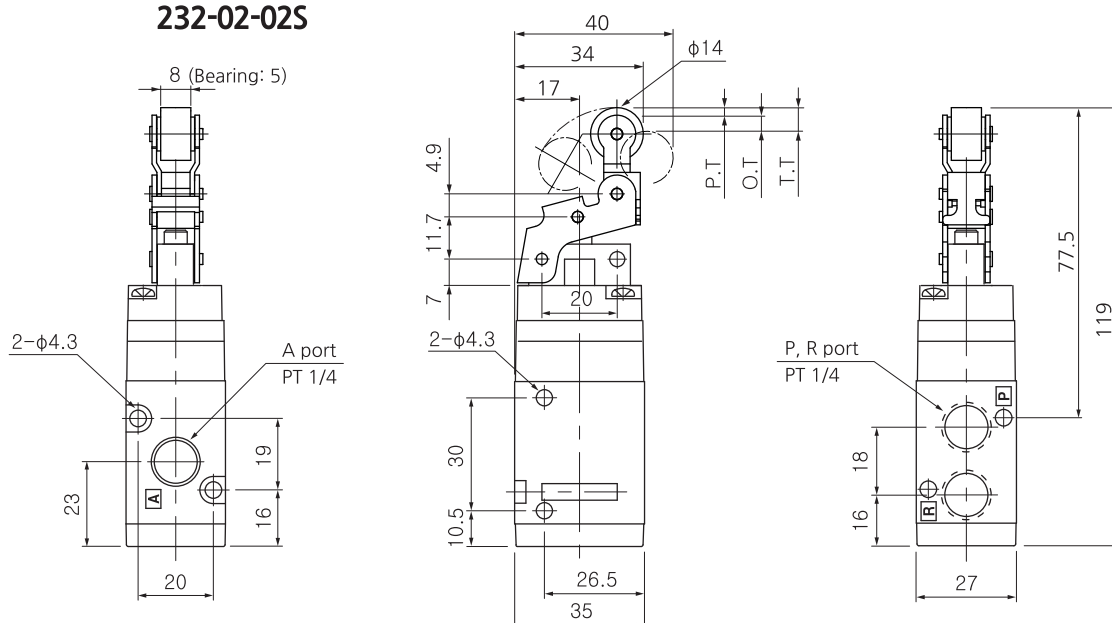
SMVF 231-02-02

232-02-02

231-02-02S

232-02-02S

P.T.	2.2
O.T.	4
T.T.	6.2

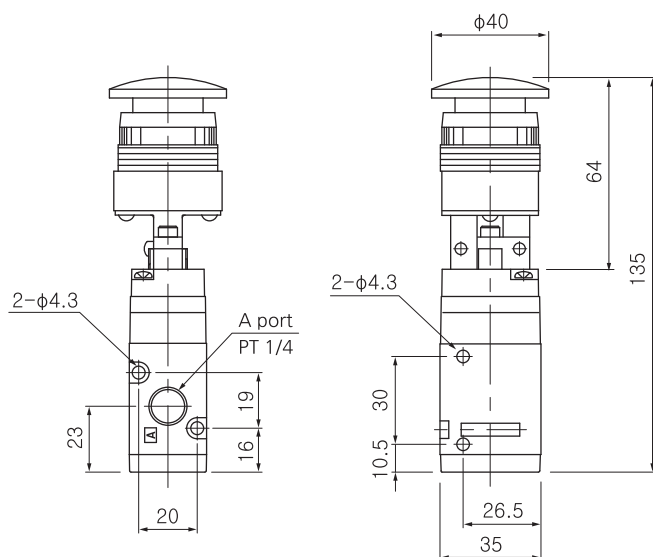


Pilot type Mechanical Valve

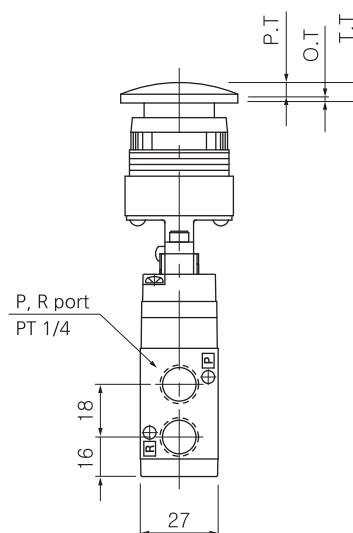
DIMENSIONS (mm)

SMVF 231-02-30

232-02-30

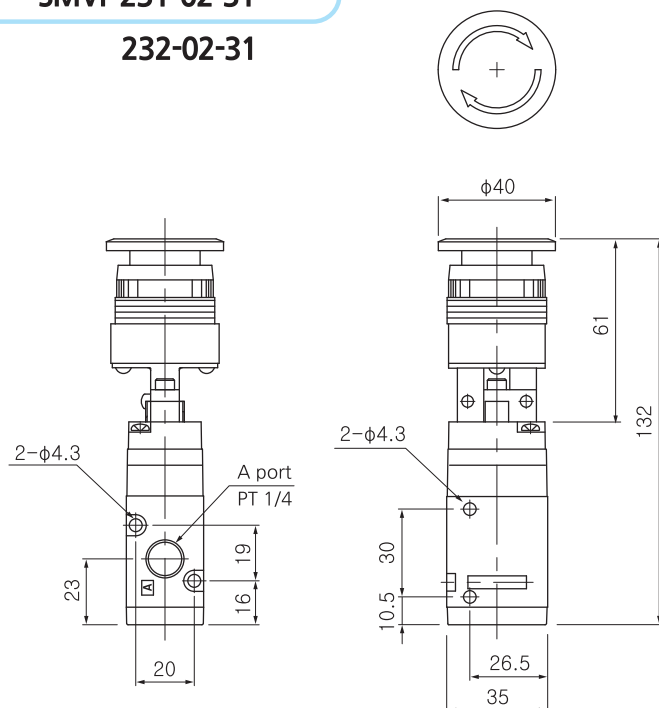


P.T.	5.5
O.T.	2
T.T.	7.5

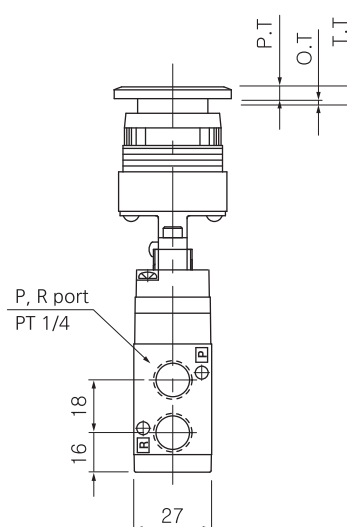


SMVF 231-02-31

232-02-31



T.T.	8
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SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

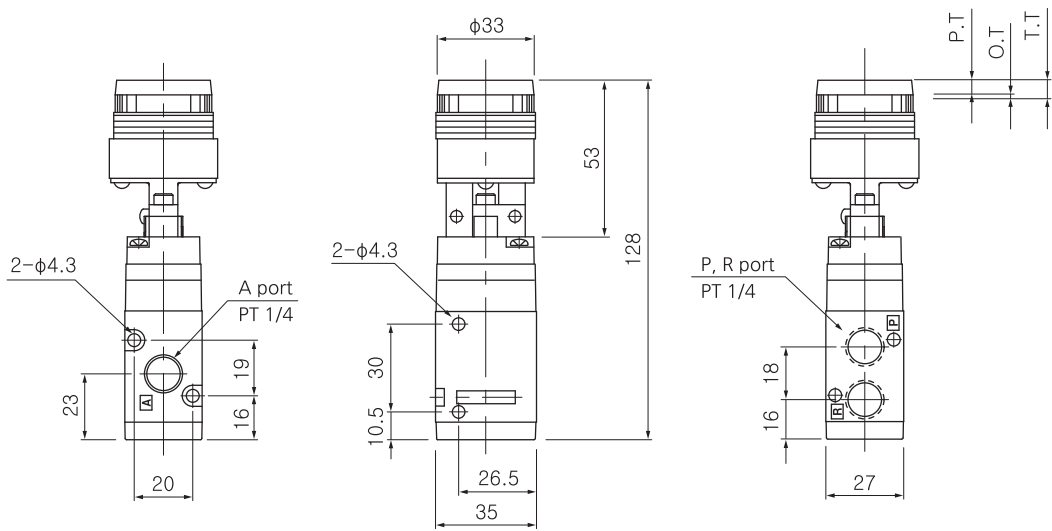
CAUTION

Series SMVF231~232

DIMENSIONS (mm)

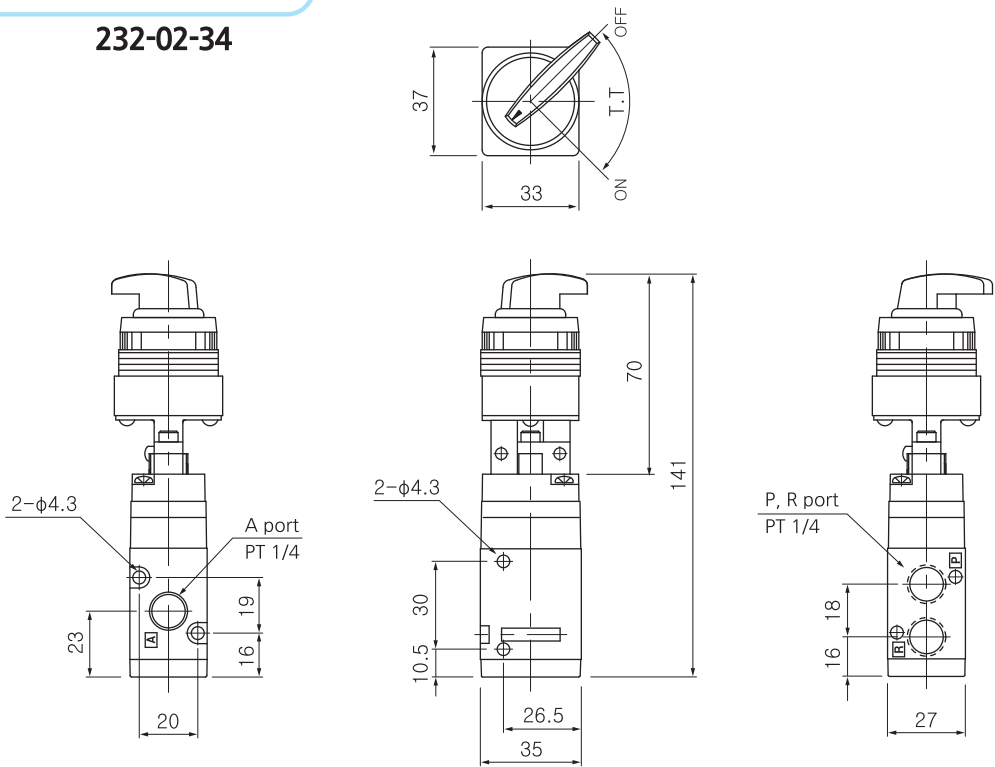
SMVF 231-02-32
232-02-32

P.T.	6
O.T.	2
T.T.	8



SMVF 231-02-34
232-02-34

T.T.	90°
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5port Pilot type Mechanical Valve (SMVF)

SMVF250 Series (Rc(PT) 1/4)



How to order

SMVF 2 5 0 - 02 - 00

① Pilot type Mechanical Valve

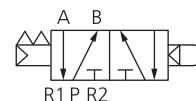
② Number of Port
5 - 5 Port

③ Thread type
Nil - Rc(PT)
N - NPT
G - G(PF)

④ Port size
02 - 1/4

⑤ Type of Actuator
00 - Standard
01 - Roller lever
015 - Roller lever(Bearing type)
02 - One way roller lever
025 - One way roller lever(Bearing type)
30 - Push button(Mushroom type)
32 - Push button(Flat type)
34 - Selector(2position)

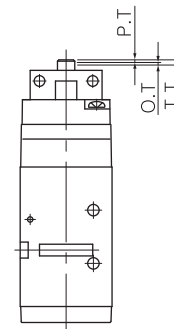
Symbol



Specification

Fluid	Compressed Air
Max. operating pressure	1.5~10bar (0.15~1MPa)
Ambient and Media temp.	-5 ~ 60°C (No freezing)
Effective orifice(Cv)	19mm ² (1.0)
Lubrication	Not required
Port size	1/4

Operating point of Mechanical valve



P.T.	From the free position to the operating position of actuator
O.T.	From the operating position to the operating limit of actuator
T.T.	From the free position to the operating limit of actuator

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

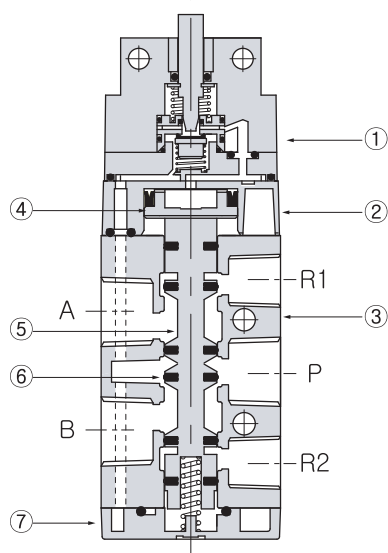
SHV

CAUTION

Series SMVF250

STRUCTURE / PARTS

SMVF 250

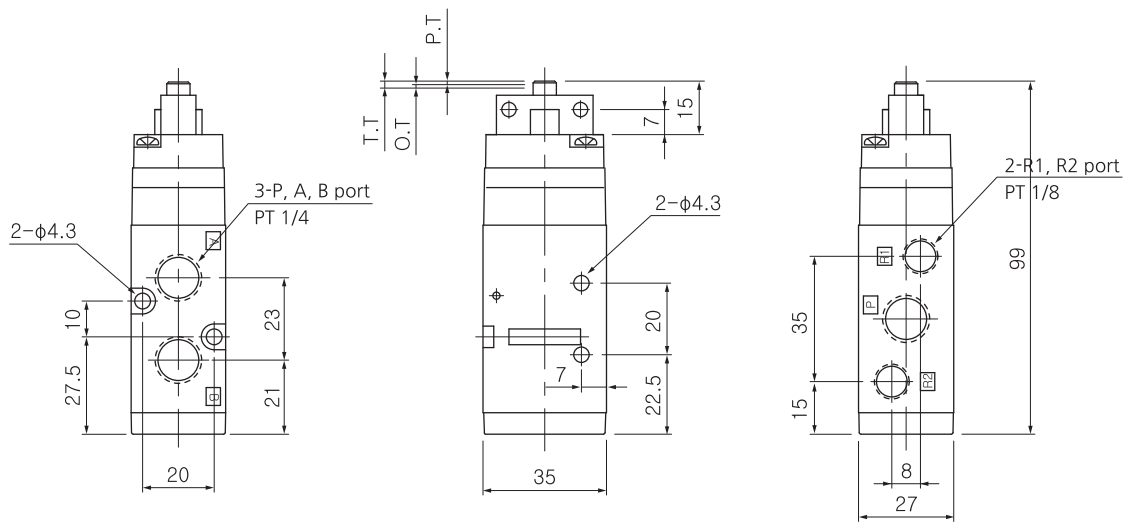


No.	PARTS	MATERIAL
①	Pilot guide	ZnDC
②	Pilot cylinder	N66G
③	Body	ALDC
④	Piston	POM
⑤	Spool	A2011
⑥	I-ring	NBR
⑦	Cover	ALDC

DIMENSIONS (mm)

SMVF 250-02-00

P.T.	1
O.T.	2
T.T.	3

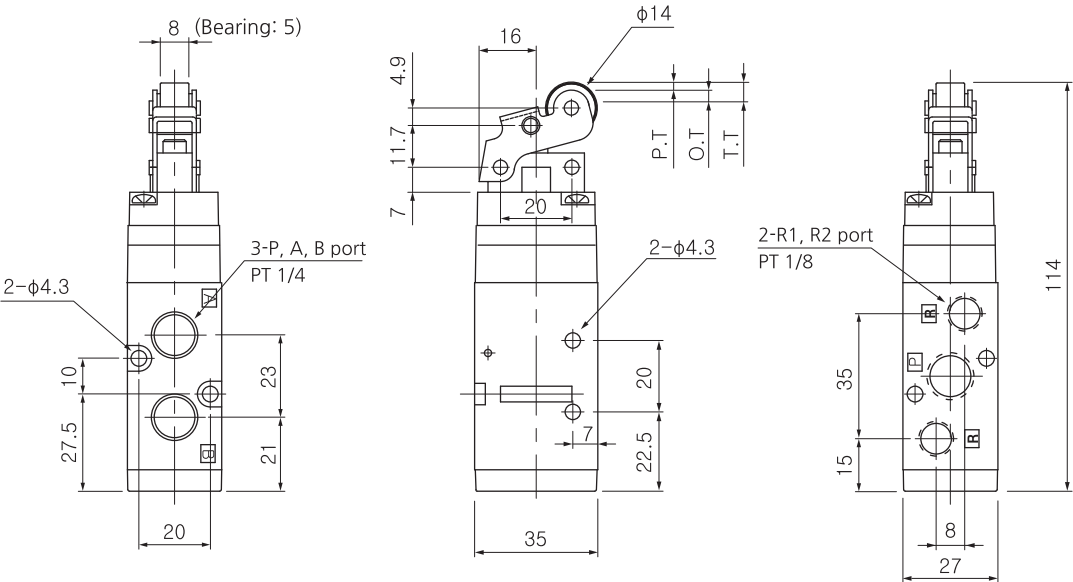


Pilot type Mechanical Valve

DIMENSIONS (mm)

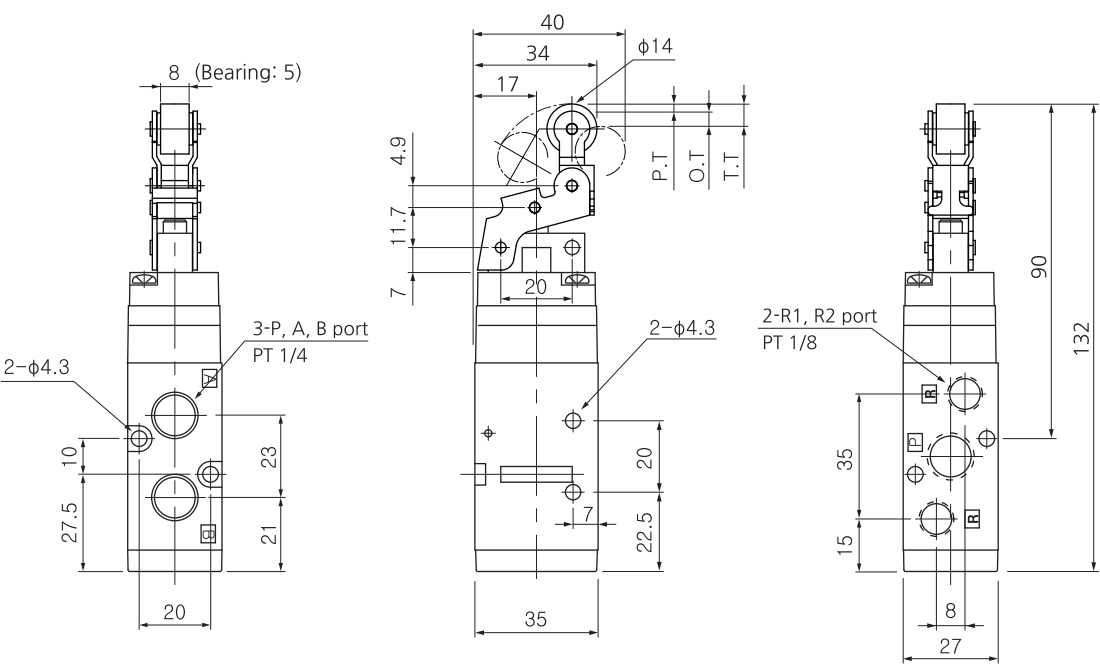
SMVF 250-02-01

250-02-01S



SMVF 250-02-02

250-02-02S



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

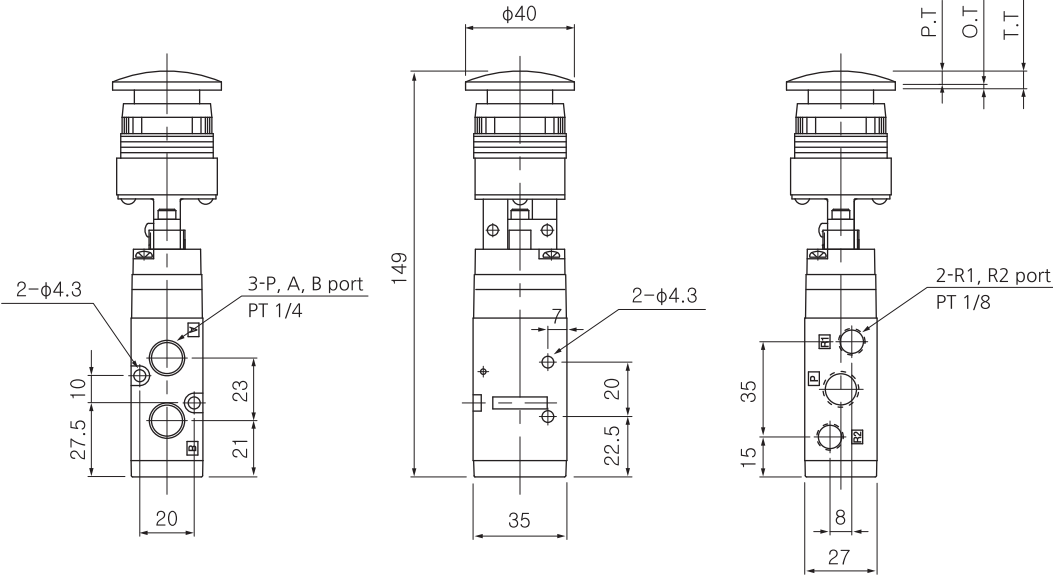
CAUTION

Series SMVF250

DIMENSIONS (mm)

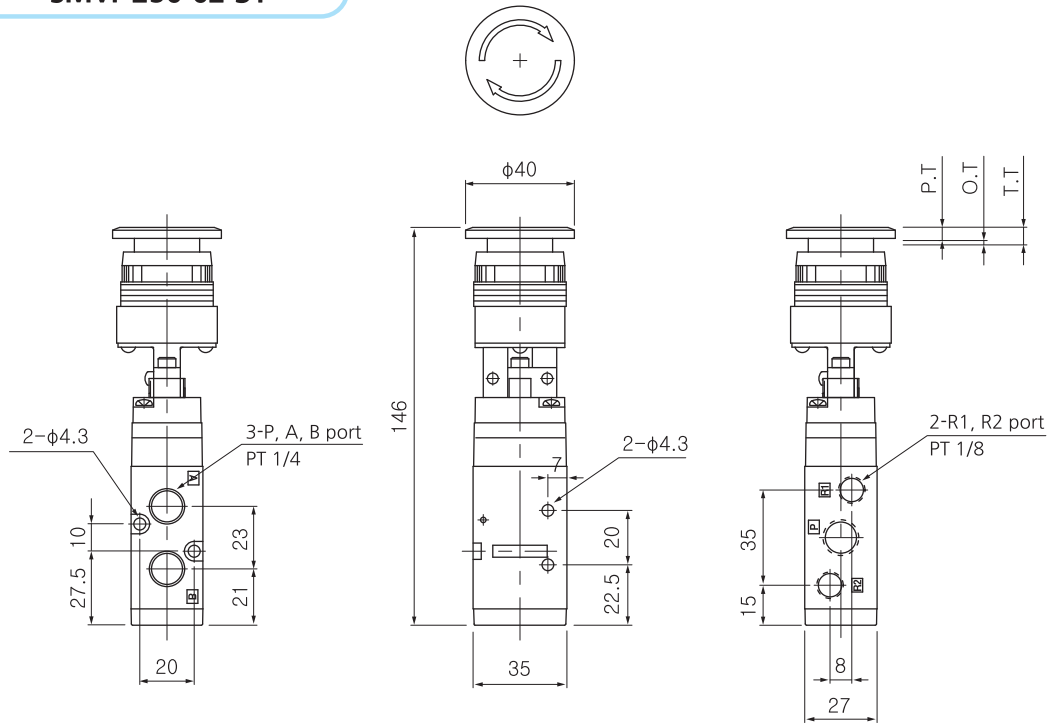
SMVF 250-02-30

P.T.	5.5
O.T.	2
T.T.	7.5



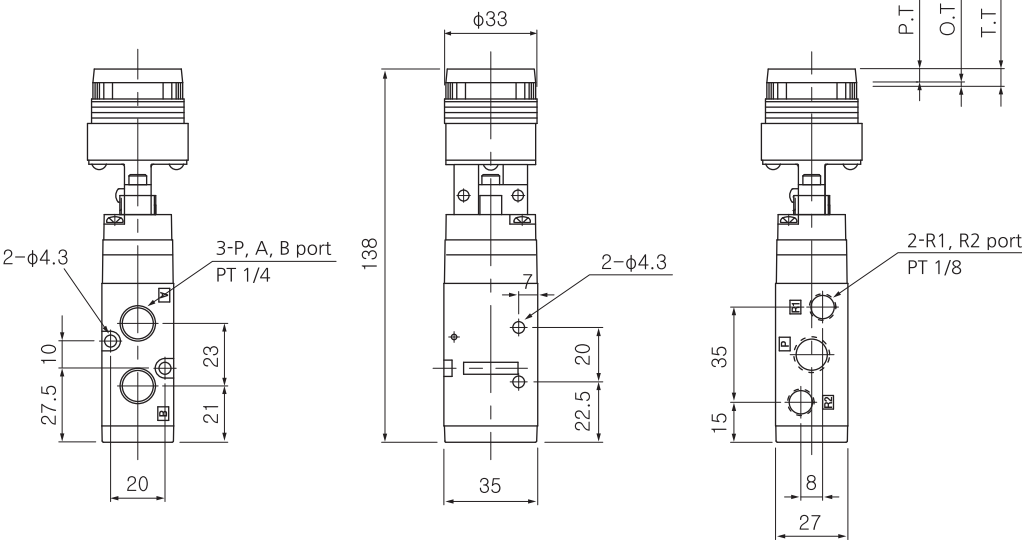
SMVF 250-02-31

T.T.	8
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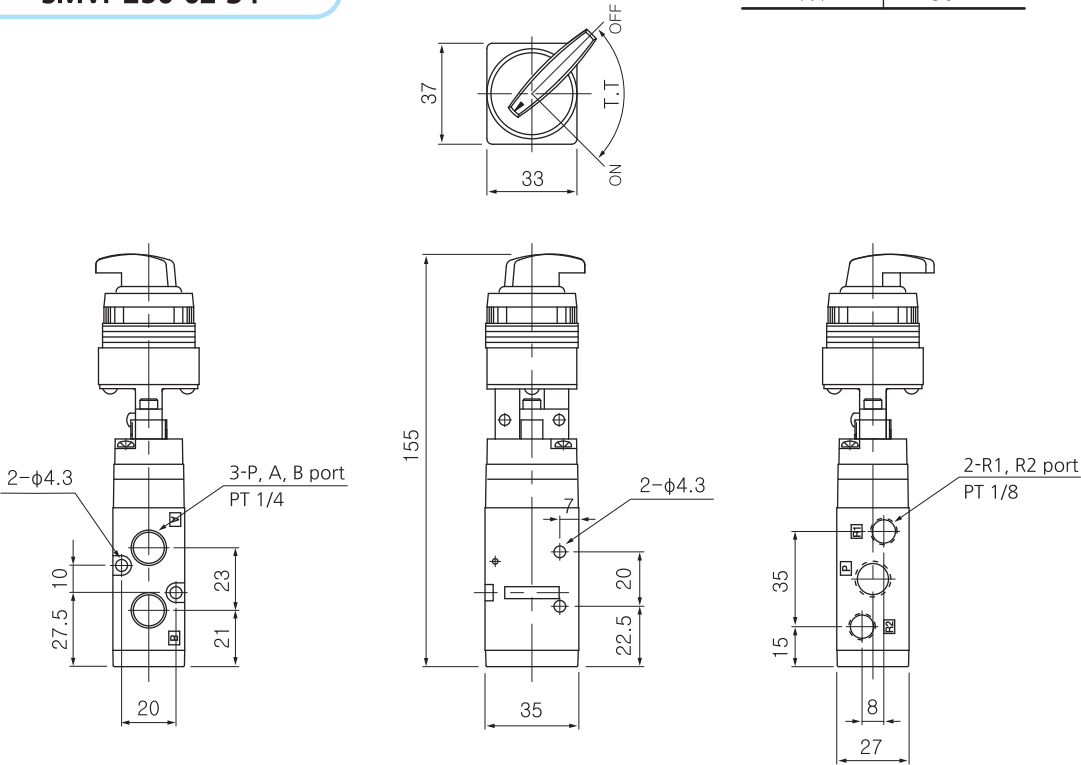


DIMENSIONS (mm)

SMVF 250-02-32



SMVF 250-02-34



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

5port Pilot type Mechanical Valve (SMVF)

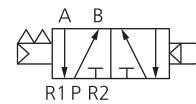
SMVF350 Series (Rc(PT) 3/8)



How to order

- SMVF 3 5 0 - 03 - 01**
- ① **Pilot type Mechanical Valve**
 - ② **Number of Port**
5 - 5 Port
 - ③ **Thread type**
Nil - Rc(PT)
N - NPT
G - G(PF)
 - ④ **Port size**
03 - 3/8
 - ⑤ **Type of Actuator**
 - 00 - Standard
 - 01 - Roller lever
 - 01S - Roller lever(Bearing type)
 - 02 - One way roller lever
 - 02S - One way roller lever(Bearing type)
 - 30 - Push button(Mushroom type)
 - 32 - Push button(Flat type)
 - 34 - Selector(2position)

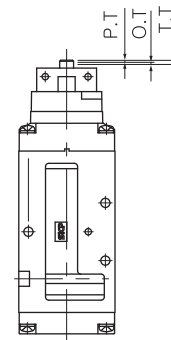
Symbol



Specification

Fluid	Compressed Air
Max. operating pressure	1.5~10bar (0.15~1MPa)
Ambient and Media temp.	-5~60℃ (No freezing)
Effective orifice(Cv)	45mm ² (2.4)
Lubrication	Not required
Port size	3/8

Operating point of Mechanical valve

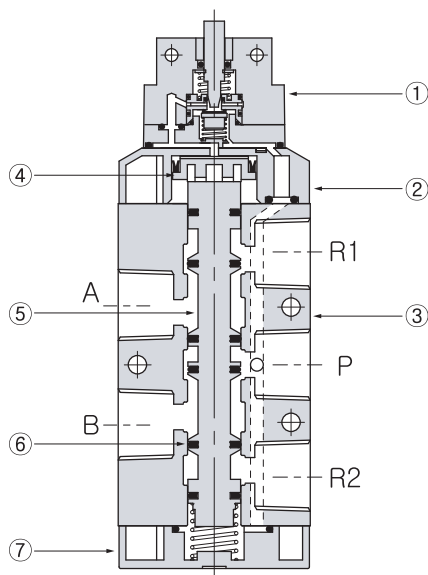


P.T.	From the free position to the operating position of actuator
O.T.	From the operating position to the operating limit of actuator
T.T.	From the free position to the operating limit of actuator

Pilot type Mechanical Valve

STRUCTURE / PARTS

SMVF 350

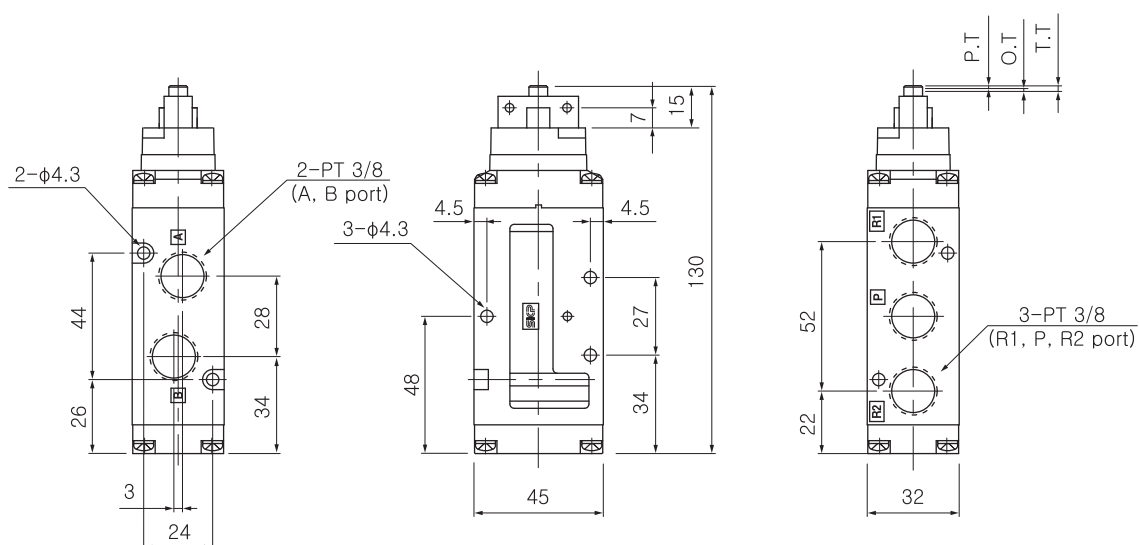


No.	PARTS	MATERIAL
①	Pilot guide	ZnDC
②	Pilot cylinder	N66G
③	Body	ALDC
④	Piston	POM
⑤	Spool	A2011
⑥	I-ring	NBR
⑦	Cover	ALDC

DIMENSIONS (mm)

SMVF 350-03-00

P.T.	1
O.T.	2
T.T.	3



SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

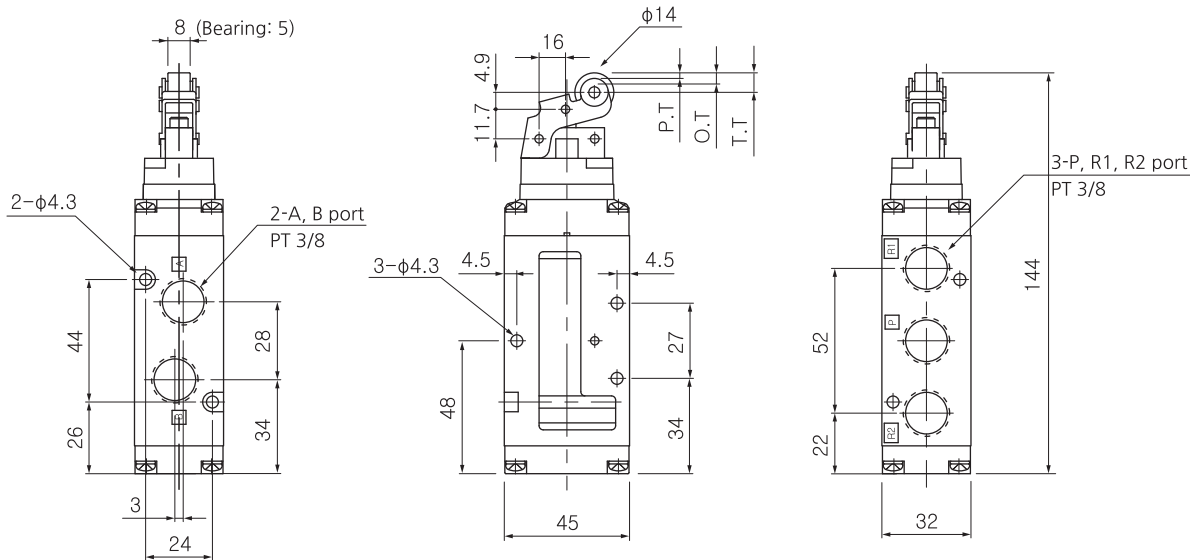
CAUTION

Series SMVF350

DIMENSIONS (mm)

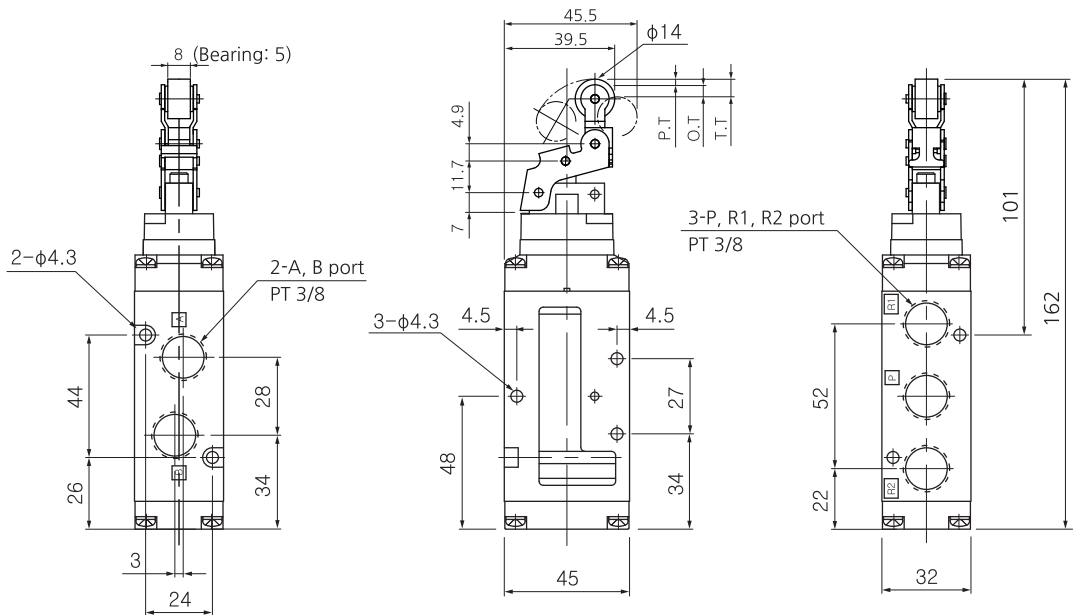
SMVF 350-03-01
350-03-01S

P.T.	2.2
O.T.	4
T.T.	6.2



SMVF 350-02-02
350-02-02S

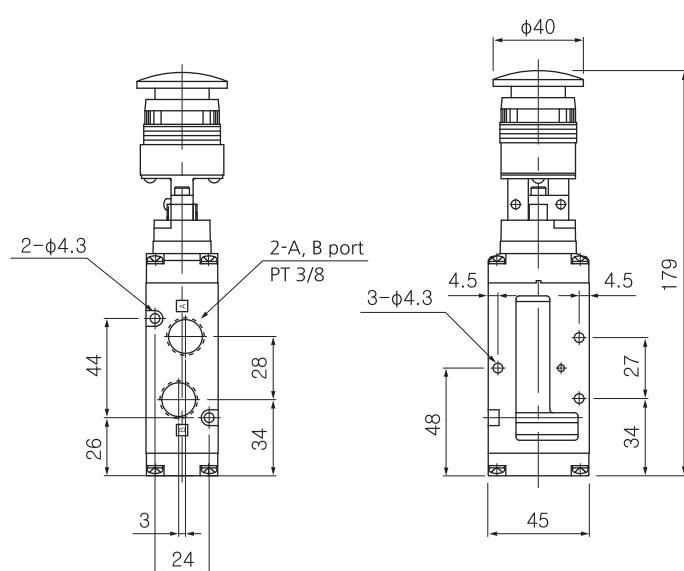
P.T.	2.2
O.T.	4
T.T.	6.2



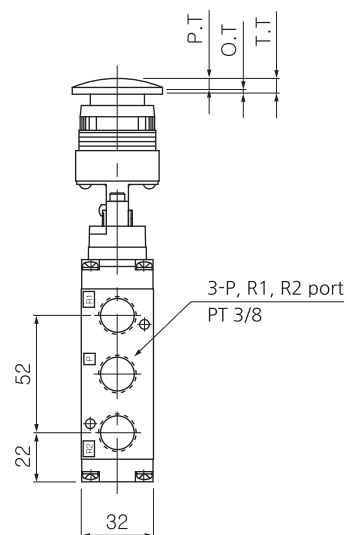
Pilot type Mechanical Valve

DIMENSIONS (mm)

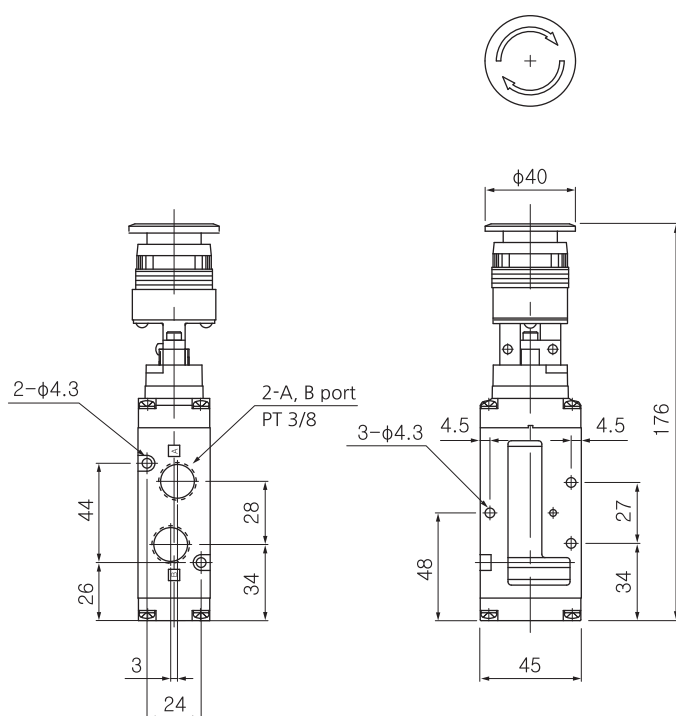
SMVF 350-03-30



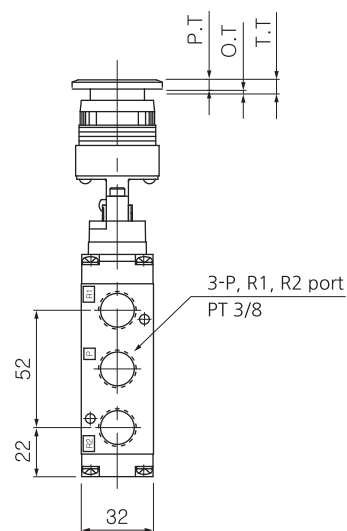
P.T.	5.5
O.T.	2
T.T.	7.5



SMVF 350-03-31



T.T.	8
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SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

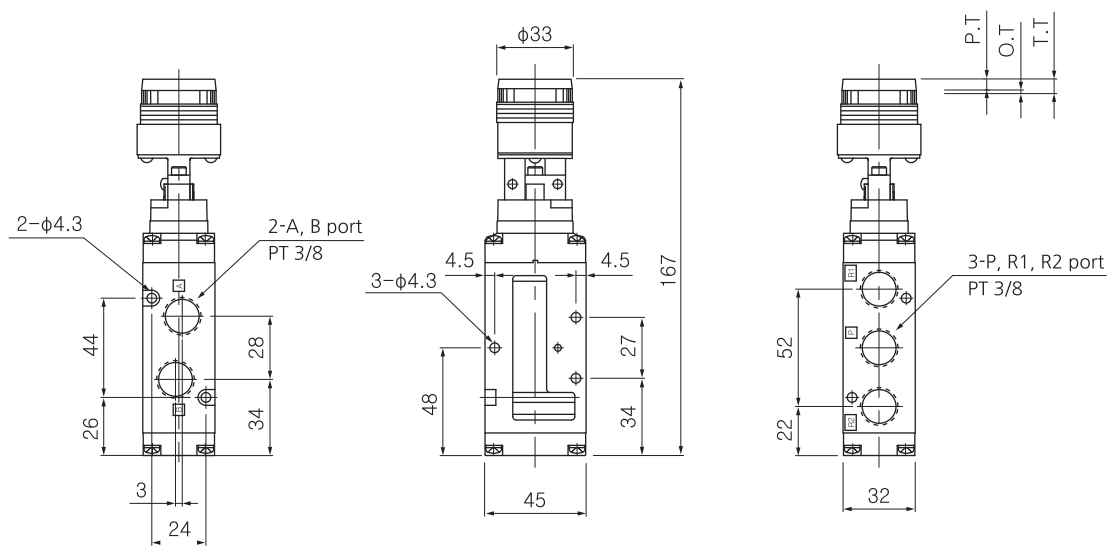
CAUTION

Series SMVF350

DIMENSIONS (mm)

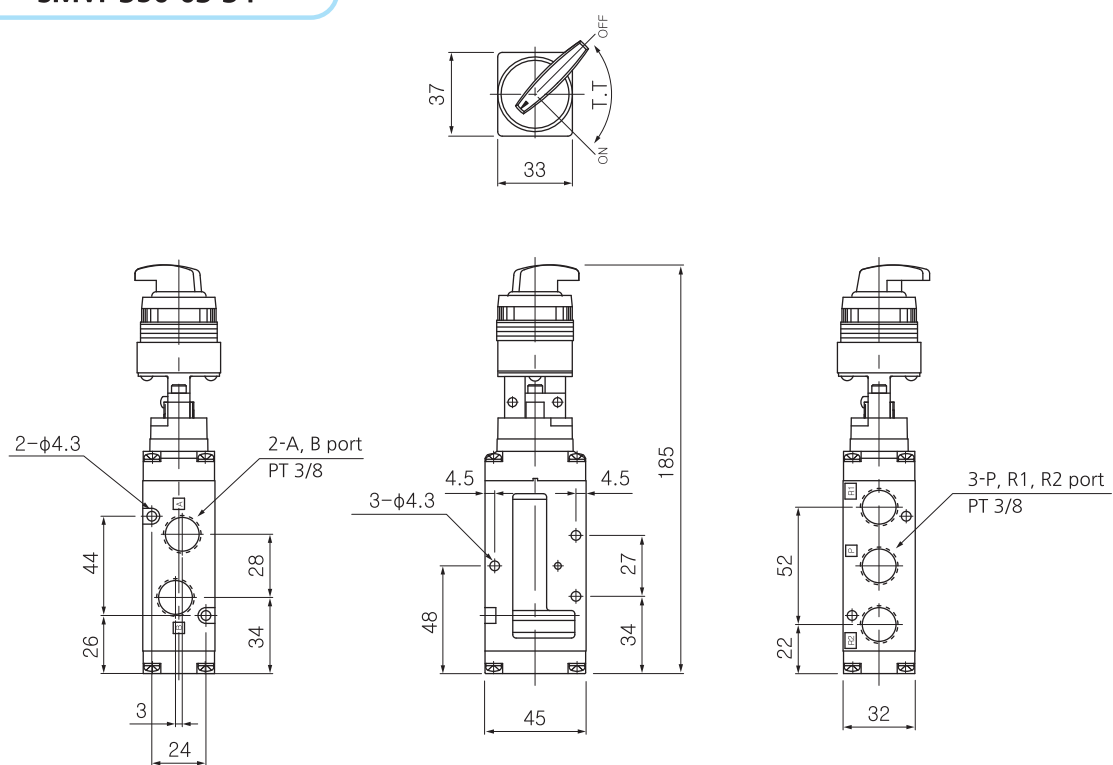
SMVF 350-03-32

P.T.	6
O.T.	2
T.T.	8



SMVF 350-03-34

T.T.	90°
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Foot Valve (SFVM)

SFVM220~230 Series



SFVM 230

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

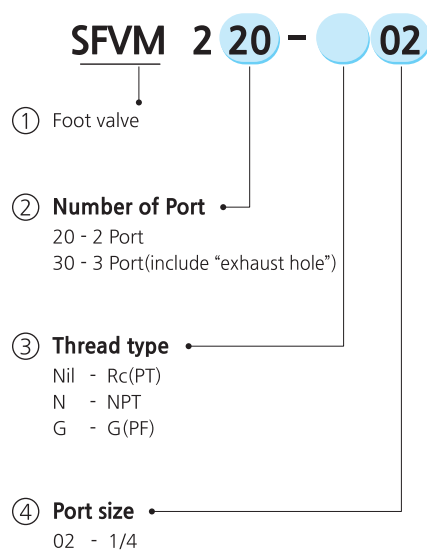
SMVF350

SFVM

SHV

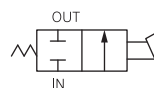
CAUTION

How to order

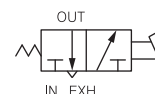


Symbol

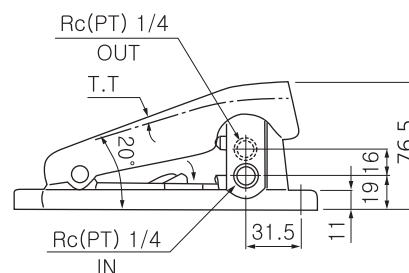
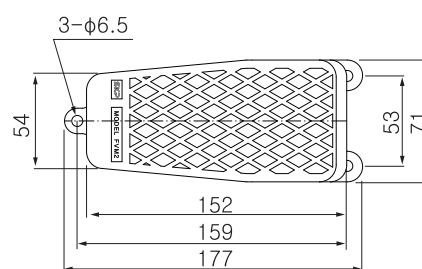
2 Port



3 Port



Dimensions (mm)



Specification

Fluid	Compressed Air
Max. operating pressure	0~10bar (0~1MPa)
Ambient and Media temp.	-5~60℃ (No freezing)
Effective orifice(Cv)	19mm ² (1.0)
Lubrication	Not required
Port size	1/4

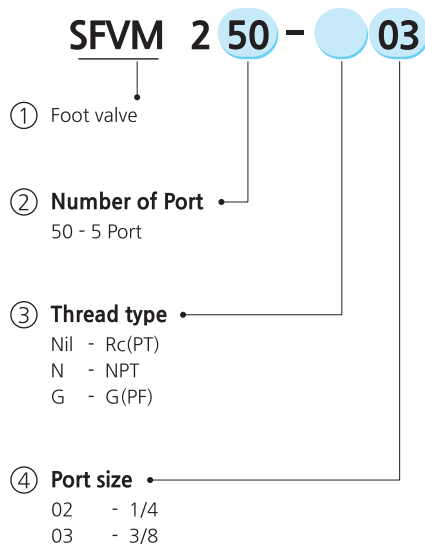
Pilot type Foot Valve (SFVM)

SFVM250 Series

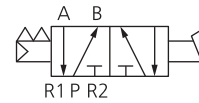


SFVM 250

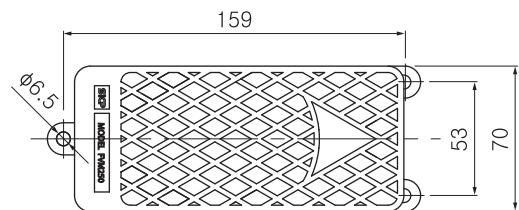
How to order



Symbol

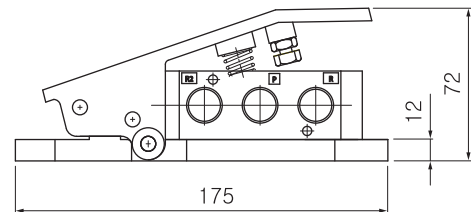


Dimensions (mm)



Specification

Model	SFVM250-02	SFVM250-03
Fluid	Compressed Air	
Max. operating pressure	0~10bar (0~1MPa)	
Ambient and Media temp.	-5 ~ 60°C (No freezing)	
Effective orifice(Cv)	19mm ² (1.0)	45mm ² (2.4)
Lubrication	Not required	
Port size	1/4	3/8



Hand Valve (SHV)

SHV200~400 Series



SHV 210



SHV 300



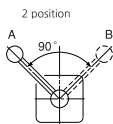
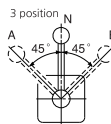
SHV 400

How to order

SHV 2 0 0 - 02

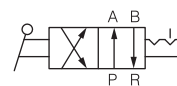
- ① Hand valve
- ② **Body size**
 - 2 - 1/4
 - 3 - 3/8
 - 4 - 1/2
- ③ **Piping and Mounting Method**

Mark	Piping	Mounting
0	Side	Body
1	Side	Panel
- ④ **Number of Positions**
 - 0 - 3 position (Closed Center)
 - 2 - 2 position

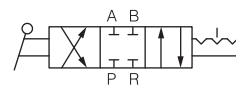


- ⑤ **Thread type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
- ⑥ **Port size**

Symbol	Size	Body size		
		2	3	4
02	1/4	●		
03	3/8		●	
04	1/2		●	●
06	3/4			●

Symbol



2 position



3 position Closed center

Specification

Fluid	Compressed Air
Max. supply pressure	15bar (15MPa)
Max. operating pressure	10bar (1MPa)
Ambient temperature	-5 ~ 60°C(No freezing)
Lubrication	Not required
Operating angle	90°

Precautions

- ① Ensure connection so that air is supplied to the "P" port. Air leakage may occur when the pressure is supplied from other ports
- ② Not suitable for negative pressure. The valve can malfunction due to air leakage.
- ③ When stopping the cylinder piston in the middle using the 3 position closed center valve, it is not possible to stop it correctly and precisely as the hydraulic equipment due to the air compressibility. Do not use this valve because it has slight air leakage and can not hold a stopping position.
- ④ The valve must be switched to each position instantly and securely. Stopping the handle halfway between the extreme positions may cause malfunction.

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

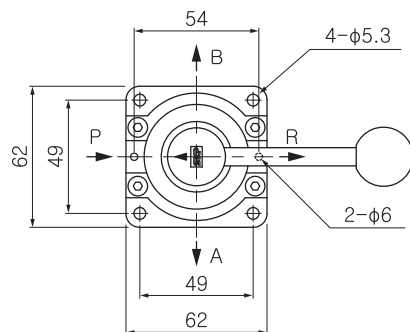
SHV

CAUTION

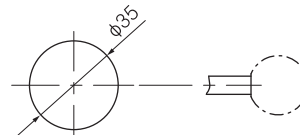
Series SHV200~400

DIMENSIONS (mm)

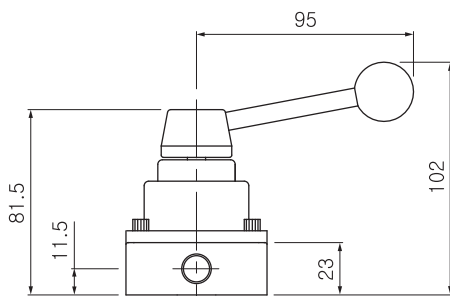
SHV 200



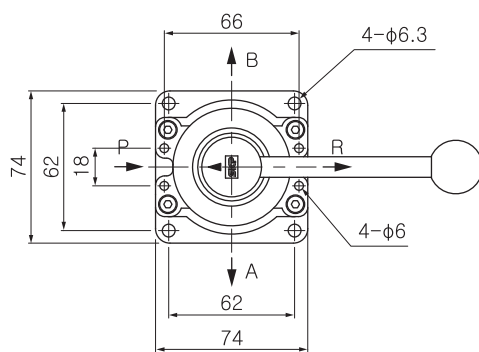
Panel cut dimension



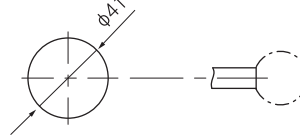
Max. panel thickness : 3.5mm



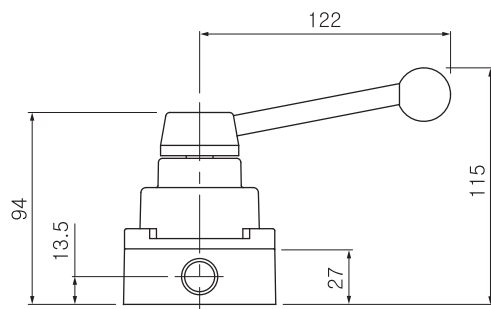
SHV 300



Panel cut dimension

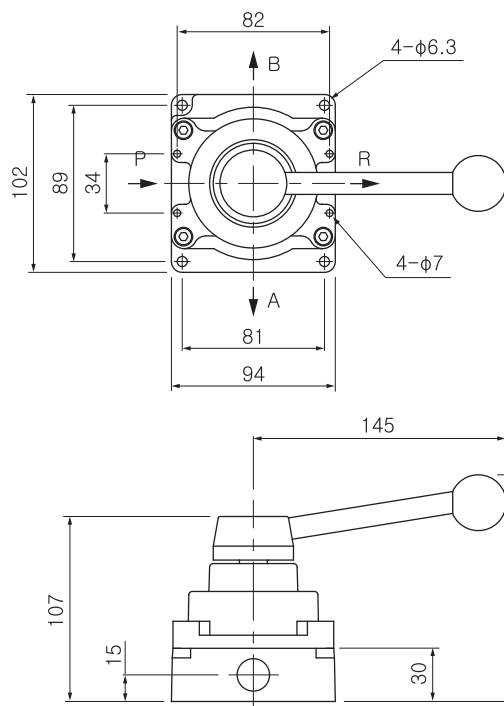


Max. panel thickness : 3.5mm

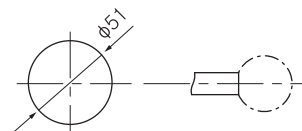


DIMENSIONS (mm)

SHV 400-04

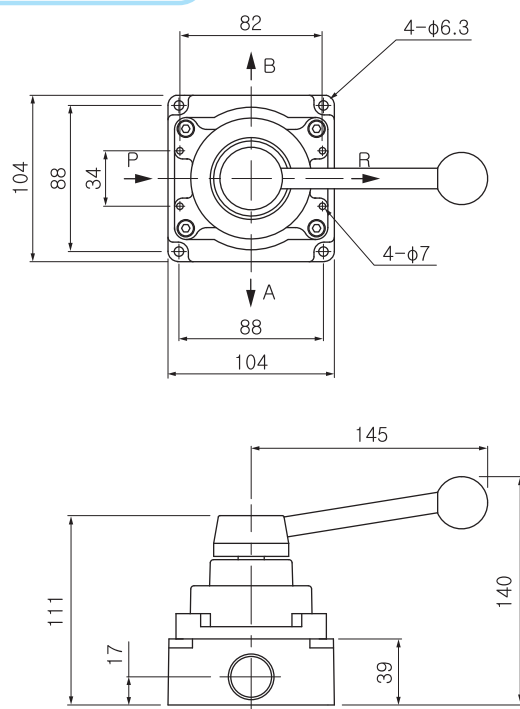


Panel cut dimension

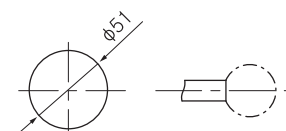


Max. panel thickness : 8mm

SHV 400-06



Panel cut dimension



Max. panel thickness : 8mm

SV1000

SV3000

SV5000

SV6000

SV231
~232

COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

Directiona Control valve Precautions

Safety Instructions

Be sure to read before handling.

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO)¹⁾, KS²⁾ and other safety regulations.

 CAUTION	indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
 WARNING	indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
 DANGER	indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

- 1) ISO 4414 : Pneumatic fluid power -- General rules relating to systems.
2) KS B 6376 : 공기압 시스템 통칙

Design / Selection

WARNING

- Pneumatic system design and device specifications selection should be done by the person with professional knowledge.
- Products represented in this catalog are designed only for use in compressed air systems. Please contact SKP when using a fluid other than compressed air
- Do not operate at pressures or temperatures, etc., beyond the range of specifications, as this can cause damage or malfunction. (Refer to the specifications.)
We do not guarantee against any damage if the product is used outside of the specification range.
- When an actuator, such as a cylinder, is to be driven using a valve, take appropriate measures (cover installation or approach prohibition) to prevent potential danger caused by actuator operation.
- Provide ventilation when using a valve in a confined area, such as in a closed control panel, in order to release the heat generated by the valve.
- Since the valves are subject to air leakage, they cannot be used for applications such as holding pressure in a pressure vessel.
- When using the double solenoid type for the first time, actuators may travel in an unexpected direction depending on the switching position of the valve. Implement measures to prevent any danger from occurring when operating the actuator.

Air Supply

WARNING

- Please consult with SKP when using the product in applications other than compressed air.
- Compressed air containing a large amount of drainage can cause malfunction of pneumatic equipment. An air dryer or water separator should be installed upstream from filters.

CAUTION

- Use the purified and dried air only.
Do not use compressed air that contains chemicals, organic solvents, salt, or corrosive gases as it can cause damage or malfunction.
- Install an air filter upstream near the valve. Select an air filter with a filtration size of 5 µm or smaller.

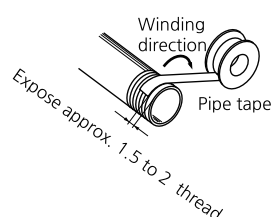
Mounting

⚠ WARNING

- When installing the products, allow access for maintenance.
- Tighten threads with the proper tightening torque.
Insufficient tightening torque may cause loosening or defective sealing.
Over-tightening torque may damage the thread etc.

⚠ CAUTION

- Before piping is connected, it should be thoroughly blown out with air or washed to remove chips, cutting oil and other debris from inside the pipe.
- When screwing piping or fittings into ports, ensure that chips from the pipe threads or sealing material do not enter the piping. Also, if pipe tape is used, leave 1.5 to 2 thread ridge exposed at the end of the threads.



- Select and connect the proper ports for accurate piping.
P(1) : Compressed air input connection ports
B(2), A(4) : Actuator connection ports
R2(3), R1(5) : Residual air exhaust ports

Operating Environment

⚠ WARNING

- Do not operate under the conditions listed below due to a risk of malfunction.
 - 1) In locations having corrosive gases, organic solvents, and chemical solutions, or in locations in which these elements are likely to adhere to the equipment.
 - 2) In locations that are exposed to direct sunlight.
 - 3) In locations that have a heat source and poor ventilation.
 - 4) In locations that are exposed to shocks and vibrations.
 - 5) In locations with high humidity or a large amounts of dust.
- Use the valves within the allowable range of 5°C~60°C of the ambient temperature and of the fluid material.
Especially at low temperatures, please use specially careful not to cause damage to the packing of frozen water.

SV1000

SV3000

SV5000

SV6000

SV231
~232COIL
CONNECTOR

SMV100

SMV200

SMVS200

SMVF231
~232

SMVF250

SMVF350

SFVM

SHV

CAUTION

Electrical factors for the valves

WARNING

- Allowable range of voltage variation should be within 10% of the recommended voltage for the proper operation of the valves. Any voltage exceeding more than 10% of the recommended voltage will result in the coil damage and the malfunctioning of the valves.
- Turning on or off of Alternate Current (AC) may result in surge current that may have problematic effect to the magnetic circuitry. It is recommended that an alternate plan is implemented to avoid such problematic effect.
- Continuous supply of electricity to the solenoid coil may result in increase of the surface temperature of the coil. In order to avoid the damage to the coil, please verify circuitry design before piping.
- Even if the source of electricity is completely disconnected, the operation of the valves may not come a complete stop due to a residual current in the magnetic circuitry. Reduce the magnitude of the leakage current on both sides by 20% of the rated voltage for AC supply current and by 10% of the rated voltage for DC supply current.

CAUTION

- When connecting power to a solenoid valve with a DC specification and equipped with a light or surge voltage suppressor, check for polarity.
- When electric power is connected to a solenoid valve, be careful to apply the proper voltage. Improper voltage may cause malfunction or coil damage.

Lubrication

CAUTION

- Valves have been lubricated for life by the manufacturer and therefore, do not require lubrication while in service.
- If a lubricant is used in the system, use class 1 turbine oil (no additive), ISO VG32.
Once lubricant is utilized within the system, since the original lubricant applied within the product during manufacturing will be washed away, please continue to supply lubrication to the system. Without continued lubrication, malfunctions could occur.

Maintenance

WARNING

- When components are removed, first confirm that measures are in place to prevent workpieces from dropping, run-away equipment, etc. Then, cut off the supply air and electric power, and exhaust all air pressure from the system using the residual pressure release function.
When the equipment is operated after remounting or replacement, first confirm that measures are in place to prevent lurching of actuators, etc. Then, confirm that the equipment is operating normally.
- Valves should be operated regularly to prevent malfunction.
- When the manual override is operated, connected equipment will be actuated. Operate after safety is confirmed.
- Even if the source of electricity is completely disconnected, the operation of the valves may not come a complete stop due to a residual current in the magnetic circuitry. Reduce the magnitude of the leakage current on both sides by 20% of the rated voltage for AC supply current and by 10% of the rated voltage for DC supply current.

WARNING

- Remove drainage from the air filters regularly.
- In the case of rubber seals, once lubrication has been started, it must be continued.
Use class 1 turbine oil (with no additive), VG32. If other lubricant oil is used, it may cause malfunction.

Other Air Equipment



■ SAS (Speed Controller)	238
■ SQE (Quick Exhaust Valve)	242
■ SJ (Floating Joint)	244
■ SRJ (Rotary Joint)	246

Speed Controller (SAS)

SAS2000~6000 Series



SAS6000



SAS5000



SAS4000



SAS2000-02



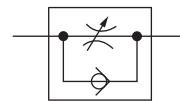
SAS2000-01

How to order

- SAS** **4** **000** - **04**
- ① Speed Controller
 - ② **Body size**
 - 2 - 1/8, 1/4
 - 4 - 1/4, 3/8, 1/2
 - 5 - 3/4
 - 6 - 1
 - ③ **Thread type**
 - Nil - Rc(PT)
 - N - NPT
 - G - G(PF)
 - ④ **Port Size**

Symbol	Size	Body size			
		2	4	5	6
01	1/8	●			
02	1/4	●	●		
03	3/8		●		
04	1/2		●		
06	3/4			●	
10	1				●

Symbol



Specification

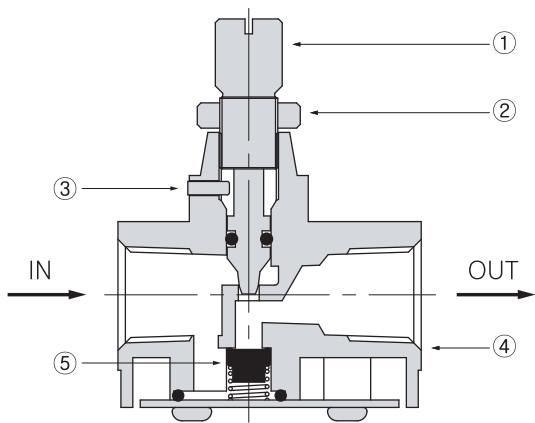
Fluid	Compressed Air
Max. supply pressure	10bar (1.0MPa)
Max. operating pressure	15bar (1.5MPa)
Ambient temperature	-5 ~ 60°C (No freezing)

Precautions

- ① This products are not designed for the use as stop valve with zero air leakage. A certain amount of leakage is allowed in the products specifications.
Tightening the needle to reduce leakage to zero may result in equipment damage.
- ② Confirm that the lock nut is tightened.
A loose lock nut may cause speed changes in the actuator.
- ③ When a needle valve is turned clockwise, it is closed and cylinder speed decreases. When a needle valve is turned counterclockwise, it is open and cylinder speed increases.

STRUCTURE / PARTS

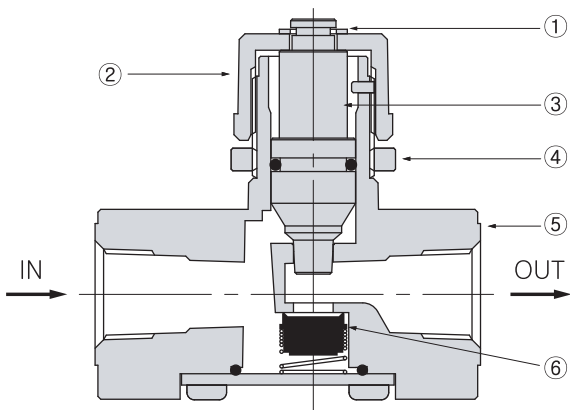
SAS 2000



No.	PARTS	MATERIAL
①	Niddle	Brass
②	Handle nut	Brass
③	Stopper pin	Brass
④	Body	ALDC
⑤	Check valve	NBR

- SAS
- SQE
- SJ
- SRJ

SAS 4000

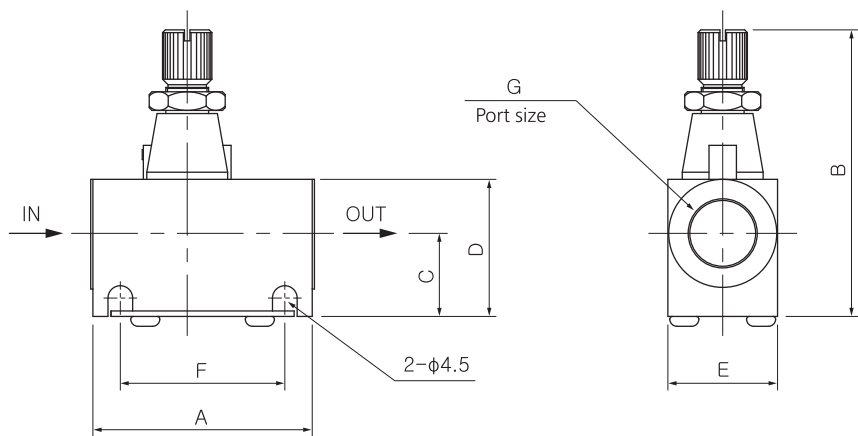


No.	PARTS	MATERIAL
①	E-ring	-
②	Handle	ABS
③	Niddle	AL
④	Handle nut	ABS
⑤	Body	ALDC
⑥	Check valve	NBR

Series SAS2000~6000

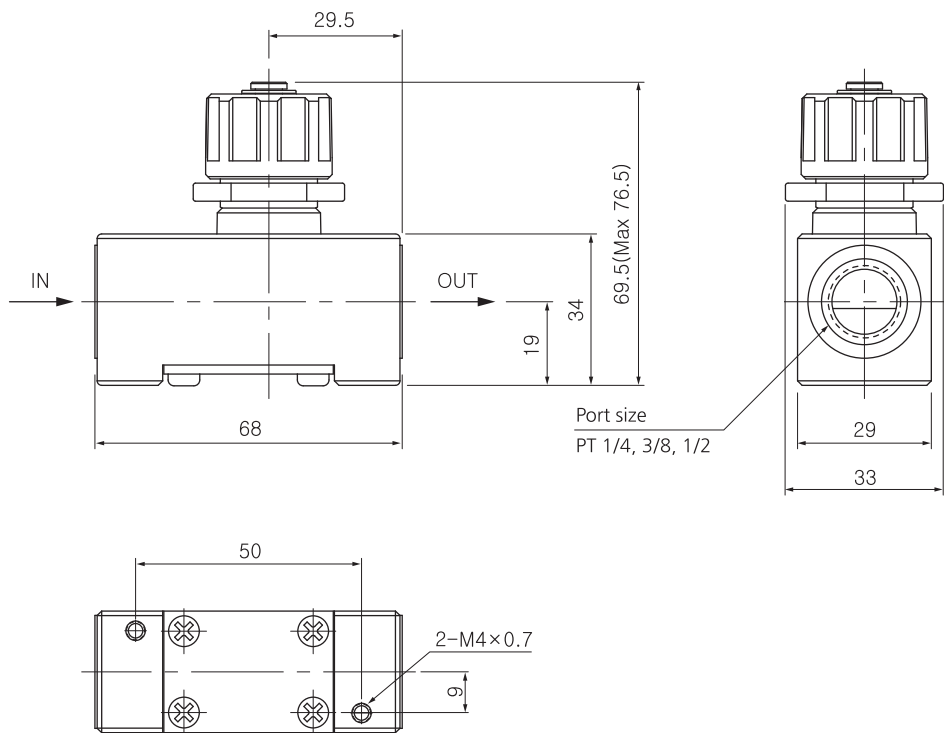
DIMENSIONS (mm)

SAS 2000



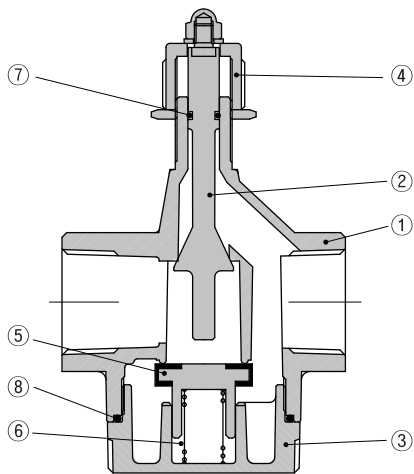
Model	A	B	C	D	E	F	G
SAS 2000-01	40	51	15	21.5	16	30	1/8
SAS 2000-02	40	53	17	25	20	30	1/4

SAS 4000



STRUCTURE / PARTS

SAS 5000~6000

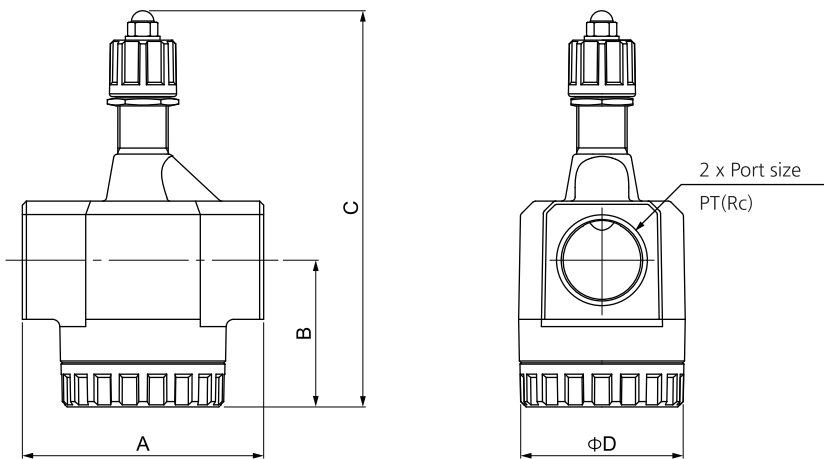


No.	PARTS	MATERIAL	
		SAS5000	SAS6000
①	Body	ALDC	
②	Niddle	Brass	
③	Cover	ALDC	
④	Handle	ALDC	
⑤	Check valve	NBR, Br	
⑥	Spring	SUS	
⑦	O-ring	NBR	
⑧	O-ring	NBR	

- SAS
- SQE
- SJ
- SRJ

DIMENSIONS (mm)

SAS 5000~6000



Model	Port size	A	B	C	D
SAS 5000	3/4	74	42	121	49
SAS 6000	1	90	55.5	145	61.5

Quick Exhaust Valve (SQE)

SQE200~500 Series



SQE500



SQE400

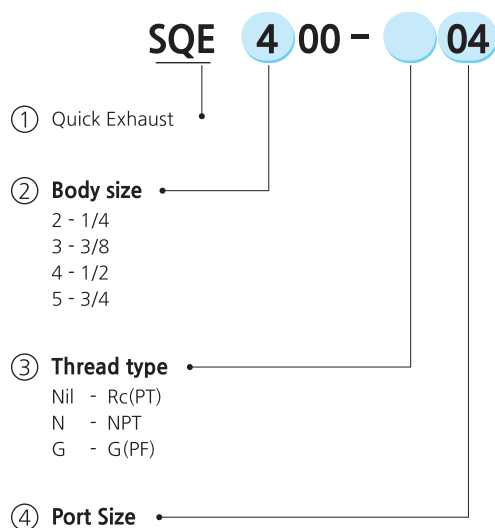


SQE300



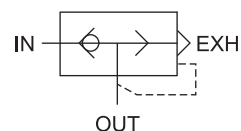
SQE200

How to order



Symbol	Size	Body size			
		2	3	4	5
02	1/4	●			
03	3/8		●		
04	1/2			●	
06	3/4				●

Symbol

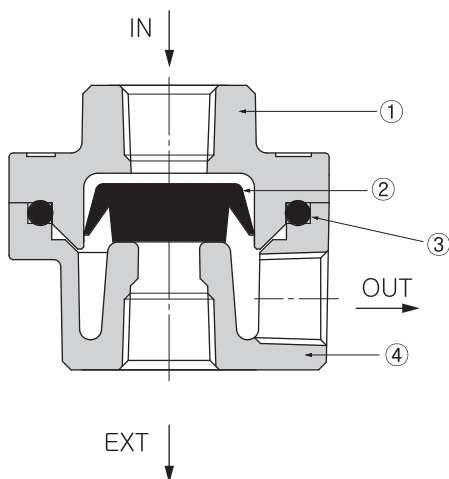


Specification

Fluid	Compressed Air
Max. supply pressure	10bar (1.0MPa)
Max. operating pressure	15bar (1.5MPa)
Ambient temperature	-5 ~ 60℃(No freezing)

STRUCTURE / PARTS

SQE 200~500



No.	PARTS	MATERIAL
①	Cover	ALDC
②	Valve ¹⁾	NBR
③	O - ring	NBR
④	Body	ALDC

Note : 1. SQE500 - Urethane

SAS

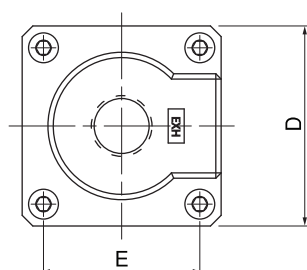
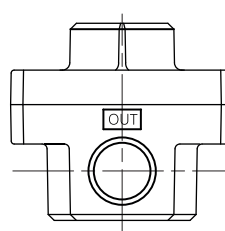
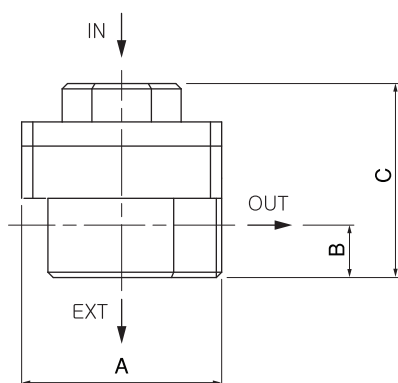
SQE

SJ

SRJ

DIMENSIONS (mm)

SQE 200~500



MODEL	Port size	A	B	C	D	E
SQE 200	1/4	45	10	40	45	35
SQE 300	3/8	56	15	55	56	44
SQE 400	1/2	56	15	55	56	44
SQE 500	3/4	80	18	71	80	58

Floating Joint (SJ)

SJ(F)10~140 Series

- SJ series compensate displacement, imbalance and equilibrium deficiency of the rotating axle between a cylinder and the other component.



How to order

- SJ F 40 - 14-150**
- ① Floating Joint
 - ② Mounting style
Nil - Standard
F - Flange type
 - ③ Applicable bore size(mm)
 - ④ Thread nominal size(Standard)

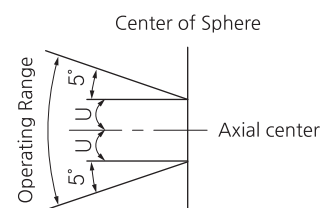
Model	Symbol	Applicable bore size(mm)
Standard	10	10
	15	10 · 15
	20	20
	30	25 · 30
	40	40
	63	50 · 63
	80	80
	100	100
	140	125 · 140

Nominal thread size	Applicable cylinder nominal thread size
5-080	M4 x 0.8
6-100	M6 x 1
8-125	M8 x 1.25
10-125	M10 x 1.25
14-150	M14 x 1.5
18-150	M18 x 1.5
22-150	M22 x 1.5
26-150	M26 x 1.5
30-150	M30 x 1.5

Specification

Operating Pressure	Pneumatic cylinder : 10bar(1MPa) or less
	Hydraulic cylinder : 35bar(3.5 MPa) or less
Mounting	Standard, Flange type

Range in Use

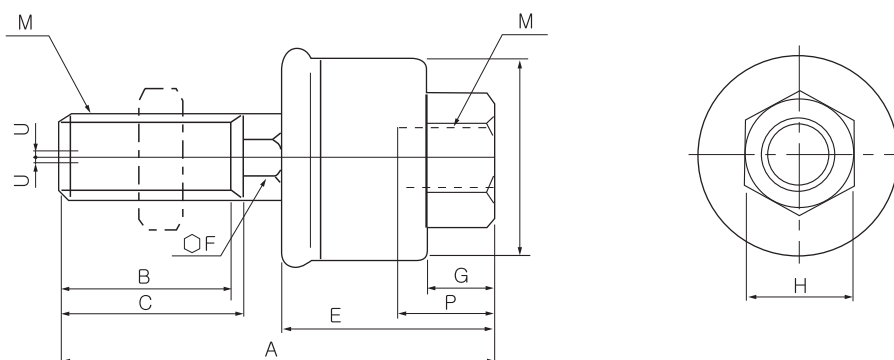


Precautions

- ① To use a floating joint to connect the cylinder rod to a driven body, secure it in place by applying a torque that is appropriate for the thread size. Also, if there is a risk of loosening during operation, take measures to prevent loosening, such as using a locking pin or thread adhesive. In the event that the connected portion becomes loose, the driven body might lose control or fall off, leading to equipment damage or injury to personnel.
- ② Do not use for rotational applications, because it is not a fitting designed for rotational axis.
- ③ High strength adhesive is applied to the portion of the connection that is threaded to prevent it from loosening, and it must not be disassembled. If it is forcefully disassembled, it could lead to damage.

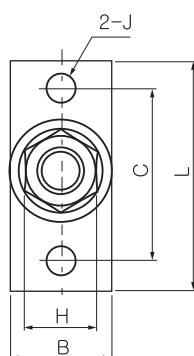
DIMENSIONS (mm)

SJ 10~140

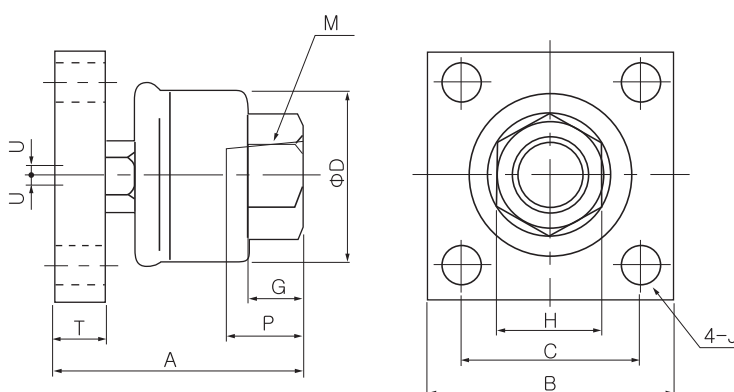


Model	M		A	B	C	D	E	F	G	H	Max. Depth of screw(P)	Permitted eccentricity(U)	Max. Operating compression(kgf)	Weight(g)
	Diameter	Pitch												
SJ10-4-070	4	0.7	34	12	14	16	2	6	5	10	5.5	0.5	5.4	20
SJ15-5-080	5	0.8	34	12	14	16	2	6	5	10	7	0.5	12.3	22
SJ15-6-100	6	1	34	12	14	16	2	6	5	10	7	0.5	12.3	24
SJ20-8-125	8	1.25	44	17	-	22	4.5	7	7	13	8	0.5	110	54
SJ30-10-125	10	1.25	50	19	-	25	5	8	8	17	9	0.5	250	86
SJ40-14-150	14	1.5	60	20	-	32	6	11	11	22	13	0.75	600	182
SJ63-18-150	18	1.5	75	25	-	42	7.5	14	13.5	27	15	1	1,100	404
SJ80-22-150	22	1.5	90	29	-	52	9.5	19	16	32	18	1.25	1,800	700
SJ100-26-150	26	1.5	110	35	-	63	11.5	24	20	41	24	2	2,800	1,250
SJ140-30-150	30	1.5	153	42	45	79	14	30	22	46	38	2.5	5,400	2,952

SJ F30~F40



SJ F63~F140



Model	M		A	B	L	C	D	E	F	G	H	Max. Depth of screw(P)	Permitted eccentricity(U)	Max. Operating compression(kgf)	Weight(g)
	Diameter	Pitch													
SJ F30-10-125	10	1.25	40	25	52	40	25	6	6.6	8	17	9	0.5	250	128
SJ F40-14-150	14	1.5	49	32	70	52	32	9	9	11	22	13	0.75	440	292
SJ F63-18-150	18	1.5	62	65	-	45	42	9	9	13.5	27	15	1	1,100	680
SJ F80-22-150	22	1.5	77	75	-	55	52	16	11	16	32	18	1.25	1,800	1,206
SJ F100-26-150	26	1.5	94	90	-	65	63	19	11	20	41	24	2	2,800	2,170
SJ F140-30-150	30	1.5	131	125	-	82	79	25	18	22	46	38	2.5	3,600	5,420

Rotary Joint (SRJ)

SRJ2000~6000 Series

- SRJ Series are easy to install because of its small size and light weight.
- SRJ Series have very low resistance against rotation.
- SRJ Series are complete no-lubrication type.



SRJ 3000A



SRJ 4000A



SRJ 6000W

How to order

SRJ 4 000 A - 04 R

- ① Rotary Joint
- ② Body size
 - 2 - 1/4
 - 3 - 3/8
 - 4 - 1/2
 - 5 - 3/4
 - 6 - 1
- ③ Media Fluid
 - A - Air
 - W - Water
- ④ Port size

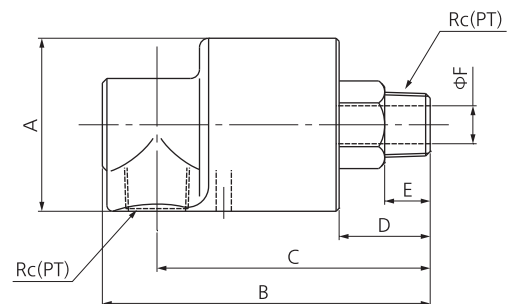
Symbol	Size	Body size					
		2	3	4	5	6	
01	1/8	●					
02	1/4	●					
03	3/8		●				
04	1/2			●			
06	3/4				●		
10	1					●	
- ⑤ Direction of connecting screw
 - R - Right
 - L - Left

Symbol

Fluid	Air, Water	
Max. temperature	60℃	
Max. pressure	10bar (1MPa)	
Number of Max. rotation	for Air	800rpm
	for Water	500rpm

Dimensions (mm)

SRJ 2000~6000



Model	Port size (PT)	A	B	C	D	E	F
SRJ2000-01	1 / 8	45	88.5	73	24	11	7
SRJ2000-02	1 / 4	45	88.5	73	24	11	7
SRJ3000-03	3 / 8	45	93	79	28	12	9
SRJ4000-04	1 / 2	57	108	91	30.5	15	12.5
SRJ5000-06	3 / 4	63	121	101	35	16	17
SRJ6000-10	1	74	138.5	115.5	42	18	21.5