

# 5 Port Pilot Operated Solenoid Valve

# PHS510 Series

## Rubber Seal/In-Line Type

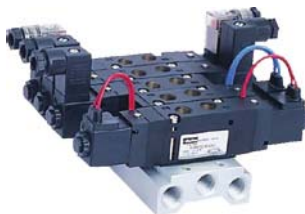
**PHS510S** 2 Position  
Single solenoid

**PHS510D** 2 Position  
Double Solenoid

**PHS510C** 3 Position  
Center Closed

**PHS510E** 3 Position  
Exhaust Center

**PHS510P** 3 Position  
Pressure Center



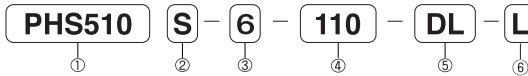
## Specifications

Model No	Unit	PHS510S	PHS510D	PHS510C	PHS510E	PHS510P
Fluid		Non-lubricated / Lubricated Air				
Port Size		PT 1/8"				
Effective Area	mm <sup>2</sup> (Cv)	12.6(0.6)			9.0(0.4)	
Temperature Range	°C	5~60°C				
Pressure Range	MPa(bar)	0.15~0.9(1.5~9.0)	0.1~0.9(1.0~9.0)	0.2~0.9(2.0~9.0)		
Max. Operating Cycle	cycle/s	10			3	
Response Time	ms	20 or less			35 or less	
Exhaust Type		Individual Exhaust				
Manual Override		Non-lock(Standard), Lever-lock(Optional)				
Shock Vibration Resistance	m/s <sup>2</sup>	30G~5G(8.3~200Hz)				

## Electrical Specifications

Voltage	V	DC24V, AC110V, AC220V(50~60Hz)
Allowable Voltage Fluctuation	%	±10%
Power Consumption	W, VA	DC24V(2.5W), AC110V(4VA), AC220V(4VA)
Insulation class		F
Wiring		Lead Wire, DIN Connector
Indicator Light		LED

## ORDER KEY



### 1. Series

5 Port Solenoid Valve

### 2. Function

S	<p>Single Solenoid</p>
D	<p>Center Closed</p>
C	<p>Center Closed</p>
E	<p>Exhaust Center</p>
P	<p>Pressure Center</p>

### 3. Port Size

6	PT 1/8"
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### 4. Voltage

24V	DC24V
110V	AC110V
220V	AC220V

### 5. Wiring

NO mark	Lead Wire
D	DIN Connector
DL	DIN Connector w/Lamp

### 6. Manual Override

NO mark	Non-Lock
L	Lever-Lock

## Coil & Connector

### Coil



Voltage	
24V	DC24
110V	AC 110V
220V	AC 220V

Wiring	
No mark	Lead Wire
D	DIN

### Connector



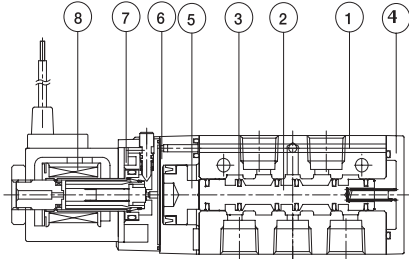
Lamp Indicator	
No mark	No Lamp Indicator
L	w/lamp Indicator

Voltage	
24V	DC24
110V	AC 110V
220V	AC 220V

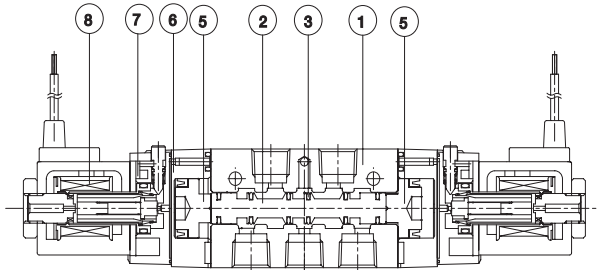
# PHS510 Series

## Construction

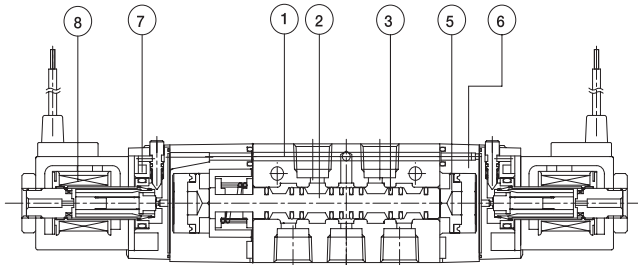
Single Solenoid



Double Solenoid



(3-position)

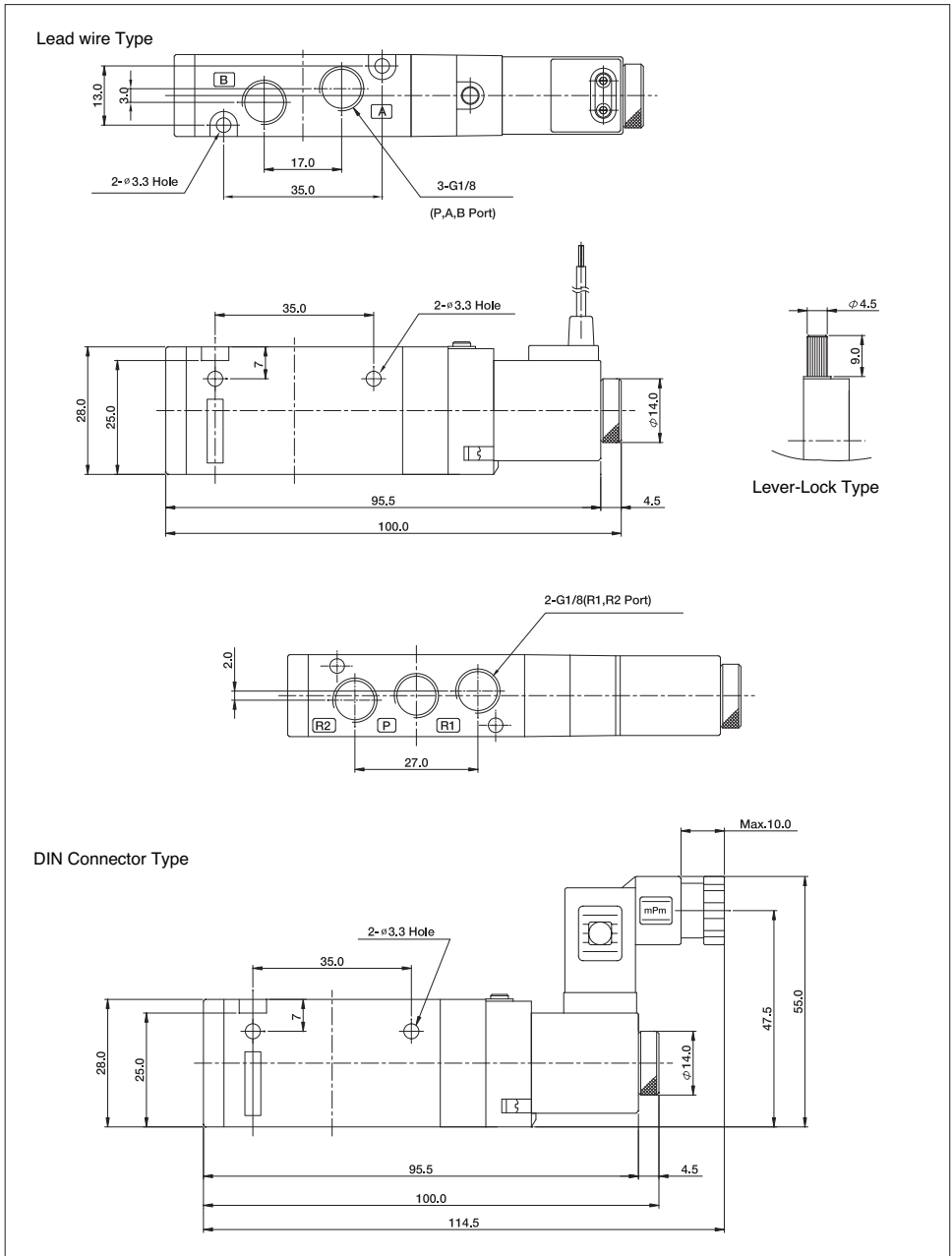


NO	Description	Material
1	Body	Aluminum Diecasting
2	Spool	Aluminum Diecasting
3	Spool Packing	NBR
4	Cap	Zinc
5	Piston	Resin
6	Semi Pilot	Zinc
7	Pilot	Resin
8	Coil Ass'y	Resin

## Dimensions

### PHS510S

(Unit : mm)





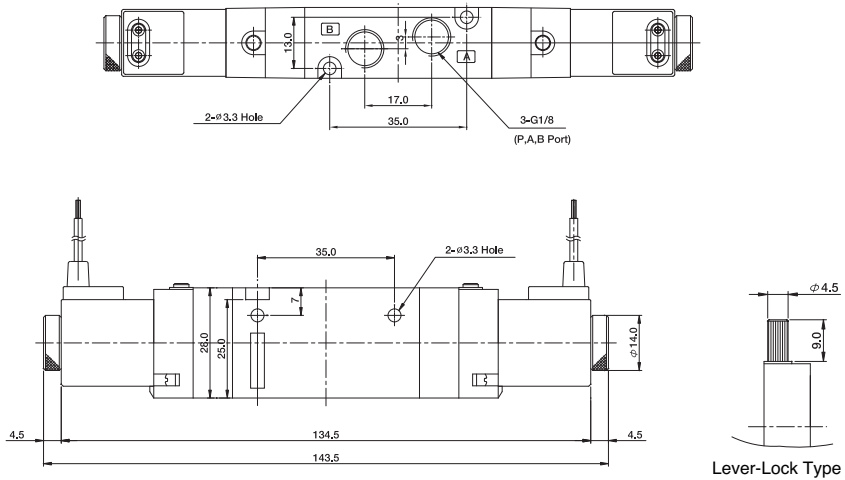
# PHS510 Series

## Dimensions

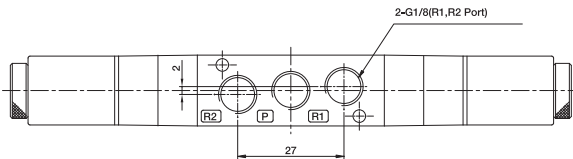
### PHS510D

(Unit : mm)

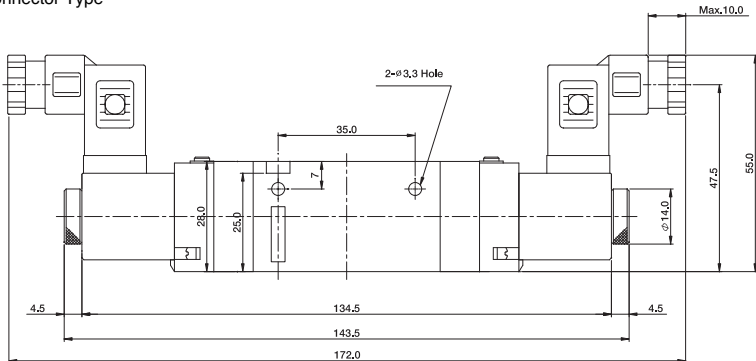
Lead wire Type



Lever-Lock Type



DIN Connector Type



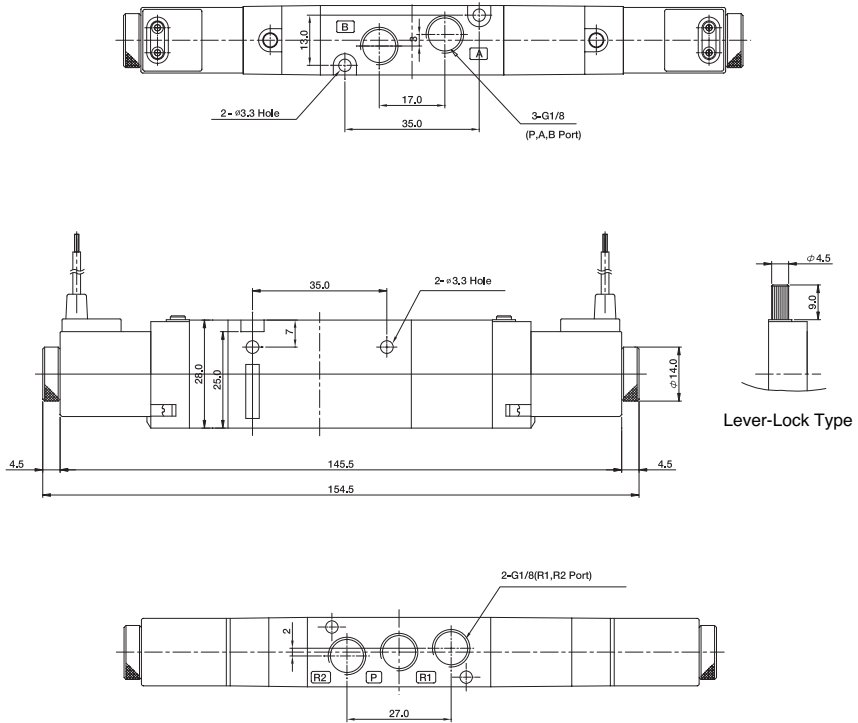
# PHS510 Series

## Dimensions

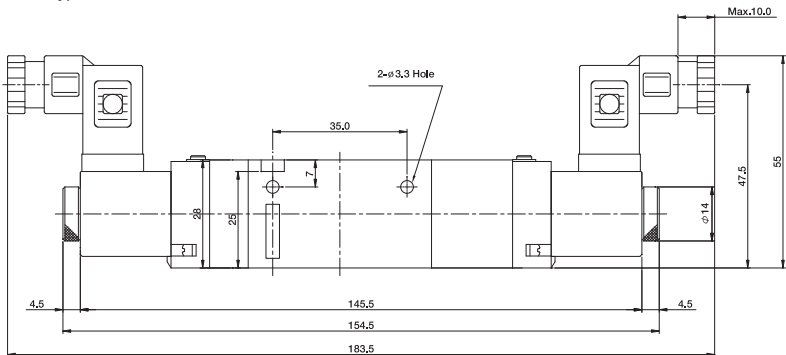
PHS510C, PHS510E, PHS510P

(Unit : mm)

### Lead wire Type

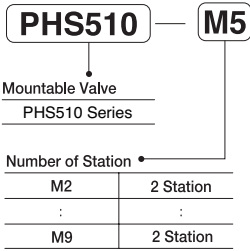


### DIN Connector Type



# PHS510 Series / Manifold

## ORDER KEY

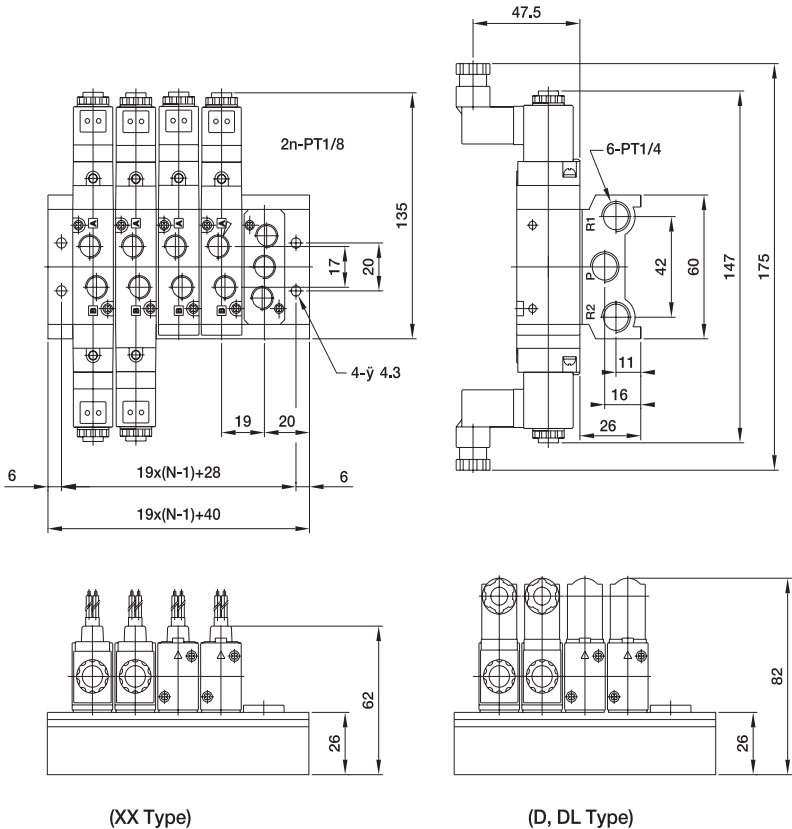


## Specification

Type		PHS510-M□
		Common SUP, Common EXH Port 2, 4 on the body
Port Size	Port 1	Rc1/4
	Port 3, 5	Rc1/4
	Port 2, 4	Rc1/4
Station	2-9 Station	
Mounting	Direct mount	
Mountable Valve	PHS510 Series	
Blanking Plate	PHS510-BP	

## Dimensions

(Unit : mm)



# 5 Port Pilot Operated Solenoid Valve

# PHS520 Series

## Rubber Seal/In-Line Type

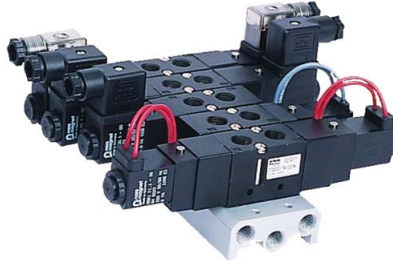
**PHS520S** 2 Position  
Single solenoid

**PHS520D** 2 Position  
Double Solenoid

**PHS520C** 3 Position  
Center Closed

**PHS520E** 3 Position  
Exhaust Center

**PHS520P** 3 Position  
Pressure Center



## Specifications

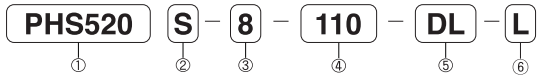
Model No	Unit	PHS520S	PHS520D	PHS520C	PHS520E	PHS520P
Fluid		Non-lubricated / Lubricated Air				
Port Size		PT 1/4"				
Effective Area	mm <sup>2</sup> (Cv)	18(1.0)			14(0.8)	
Temperature Range	°C	5~60 °C				
Pressure Range	MPa(bar)	0.15~0.9(1.5~9.0)	0.1~0.9(1.0~9.0)		0.2~0.9(2.0~9.0)	
Max. Operating Cycle	cycle/s	10			3	
Response Time	ms	20 or less			35 or less	
Exhaust Type		Individual Exhaust				
Manual Override		Non-lock(Standard), Lever-lock(Optional)				
Shock/Vibration Resistance	m/s <sup>2</sup>	30G~5G(8.3~200Hz)				

## Electrical Specifications

Voltage	V	DC24V, AC110V, AC220V(50~60Hz)
Allowable Voltage Fluctuation	%	±10%
Power Consumption	W, VA	DC24V(2.6W), AC110V(4VA), AC220V(3.5VA)
Insulation class		F
Wiring		Lead Wire, DIN Connector
Indicator Light		LED

# PHS520 Series

## ORDER KEY



1. Series  
5 Port Solenoid Valve

2. Function

S	Single Solenoid 
D	Double solenoid 
C	Center Closed 
E	Exhaust Center 
P	Pressure Center 

3. Port Size

8	PT 1/4"
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4. Voltage

24V	DC24V
110V	AC110V
220V	AC220V

5. Wiring

No mark	Lead Wire
D	DIN Connector
DL	DIN Connector w/Lamp Indicator

6. Manual Override

No mark	Non-Lock
L	Lever-Lock

## Coil & Connector

### Coil



Voltage

DC24
AC 110V
AC 220V

Wiring

No mark	Lead Wire
D	DIN

### Connector



Lamp Indicator

No mark	No Lamp Indicator
L	w/ Lamp Indicator

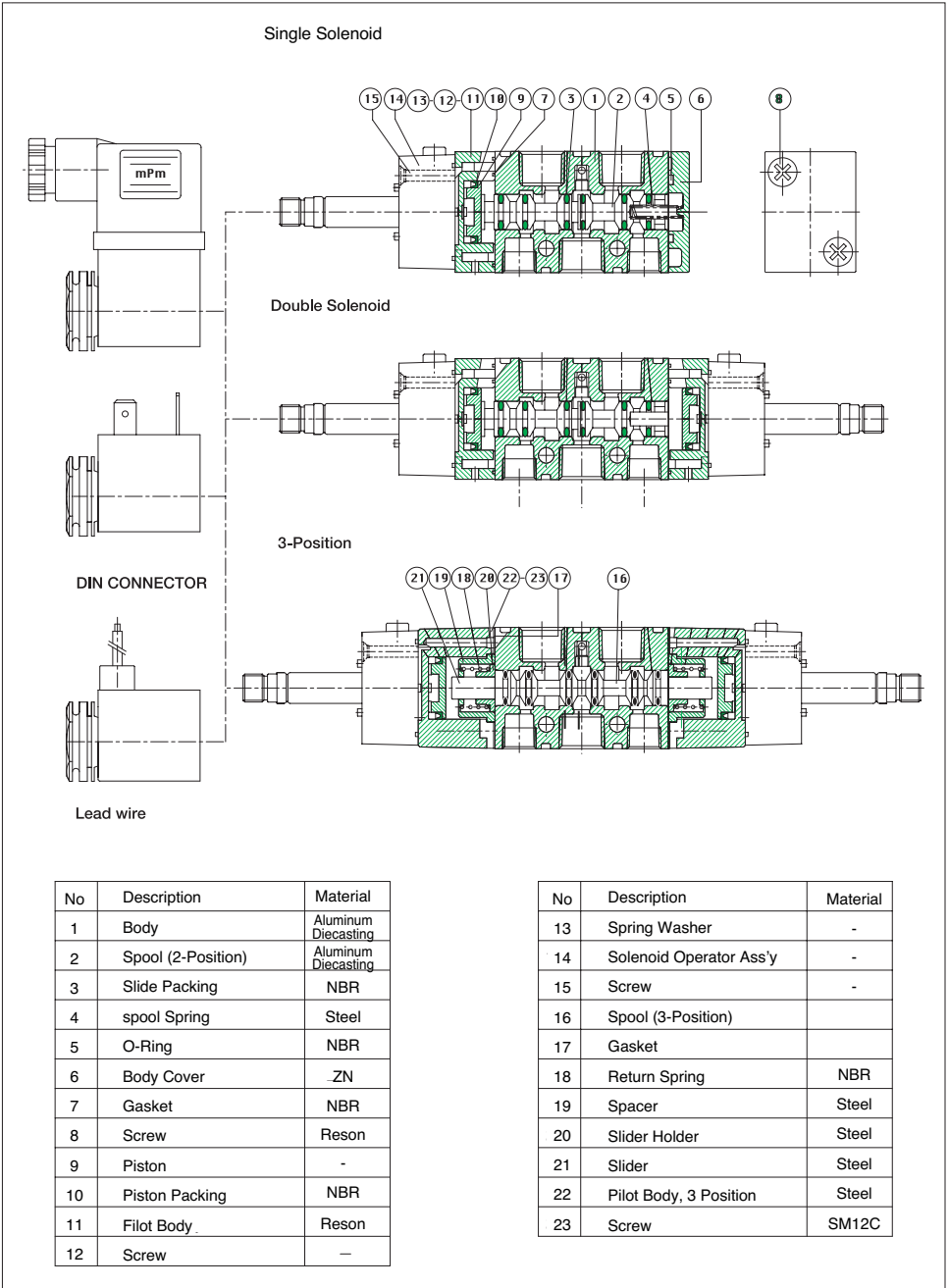
Voltage

No mark	No Lamp Indicator
24V	DC24
110V	AC 110V
220V	AC 220V

- **Explosion Proof Coil**  
Explosion Proof Coil can be applied to the PHS Series.  
Please refer To 483 pages for detail information

- **Blanking Plate**  
Model : PHS520-BP

## Construction



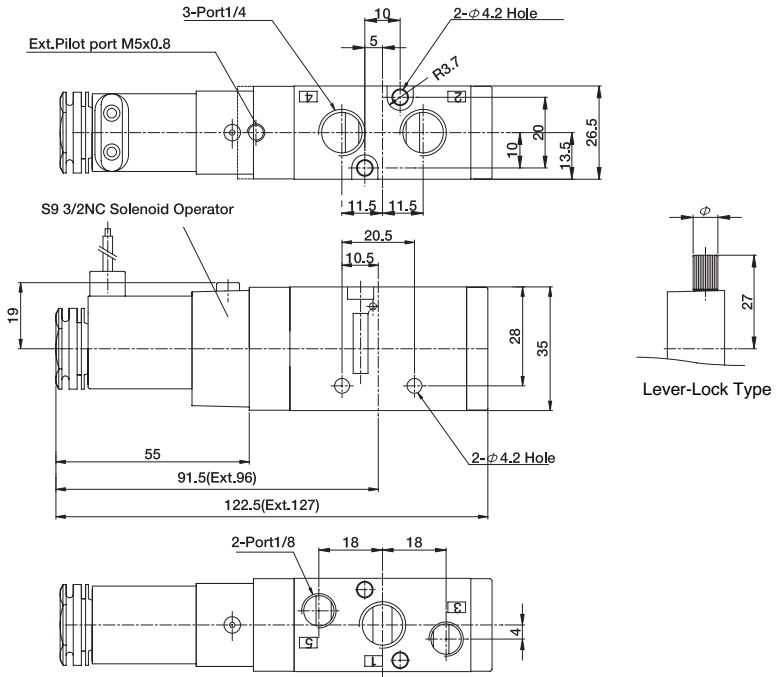
# PHS520 Series

## Dimensions

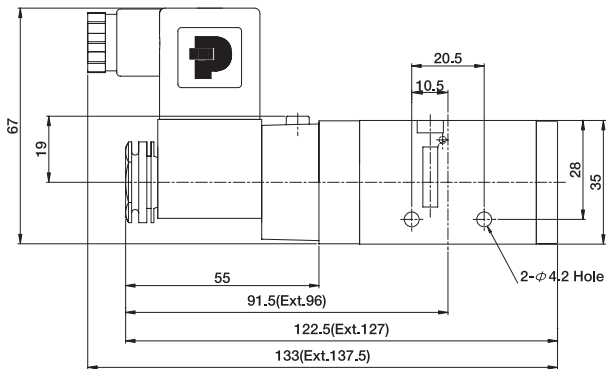
### PHS520S

(Unit : mm)

#### Lead wire Type



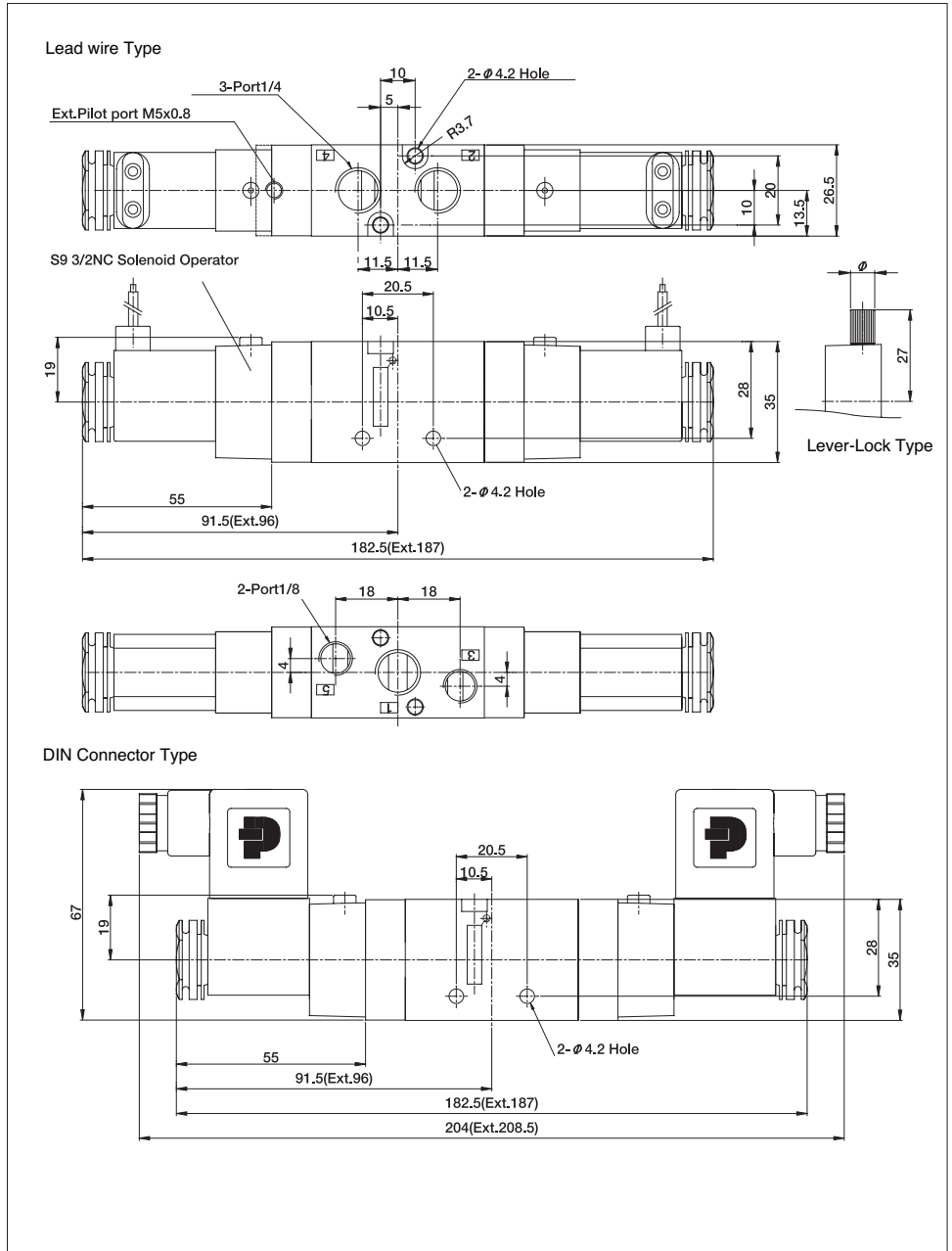
#### DIN Connector Type



## Dimensions

### PHS520D

(Unit : mm)



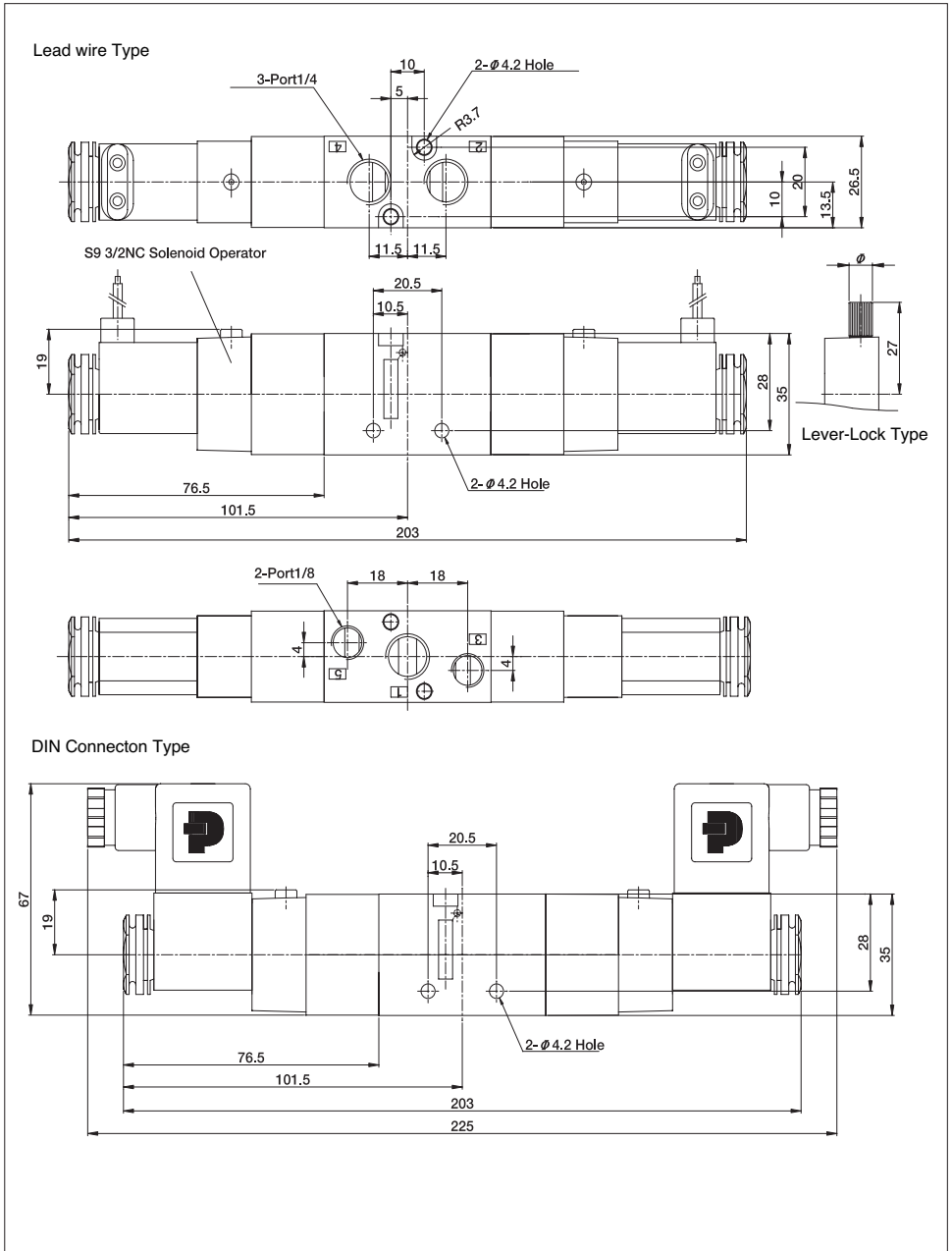


# PHS520 Series

## Dimensions

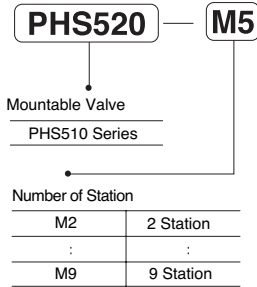
PHS520C, PHS520E, PHS520P

(Unit : mm)



# PHS520 Series / Manifold

## ORDER KEY



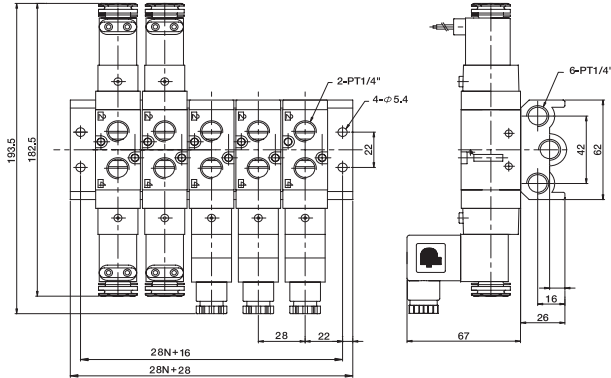
## Specification

Type		PHS520-M□
		Common SUP, Common E Port 2, 4 on the body
Port Size	Port 1	RC 1/4
	Port 3, 5	RC 1/4
	Port 2, 4	RC 1/4
Station		2~9 Station
Mounting		Direct mount
Mountable Valve		PHS520 Series
Blanking Plate		PHS520-BP-

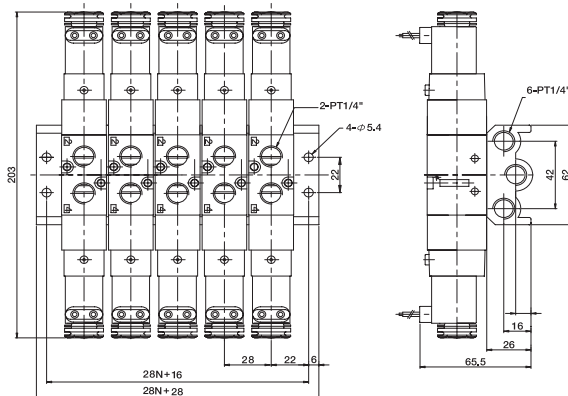
## Dimensions

(Unit : mm)

PHS520S, D



PHS520C, E, P



N : station

# 5 Port Pilot Operated Solenoid Valve

# PHS530 Series

## Rubber Seal / In-Line Type

<b>PHS530S</b>	<b>2 Position</b> Single solenoid
<b>PHS530D</b>	<b>2 Position</b> Double Solenoid
<b>PHS530C</b>	<b>3 Position</b> Center Closed
<b>PHS530E</b>	<b>3 Position</b> Exhaust Center
<b>PHS530P</b>	<b>3 Position</b> Pressure Center



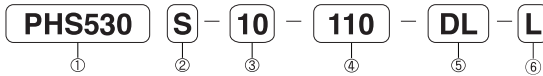
## Specifications

Model No	Unit	PHS530S	PHS530D	PHS530C	PHS530E	PHS530P
Fluid		Non-lubricated / Lubricated Air				
Port Size		PT 3/8"				
Effective Area	mm <sup>2</sup> (Cv)	30(1.6)				
Temperature Range	°C	5~60°C				
Pressure Range	MPa(bar)	0.15~0.9(1.5~9.0)	0.1~0.9(1.0~9.0)	0.2~0.9(2.0~9.0)		
Max. Operating Cycle	cycle/s	8			3	
Response Time	ms	25 or less			35 or less	
Exhaust Type		Individual Exhaust				
Manual Override		Non-lock(Standard), Lever-lock(Optional)				
Shock/Vibration Resistance	m/s <sup>2</sup>					

## Electrical Specifications

Voltage	V	DC24V, AC110V, AC220V(50~60Hz)
Allowable Voltage Fluctuation	%	±10%
Power Consumption	W, VA	DC24V(2.6V), AC110V(4VA), AC220V(3.5VA)
Insulation class		F
Wiring		Lead Wire, DIN Connector
Indicator Light		LED

## ORDER KEY



1. Series  
5 Port Solenoid Valve

2. Function

S	Single Solenoid 
D	Double solenoid 
C	Center Closed 
E	Exhaust Center 
P	Pressure Center 

3. Port Size

8	PT 1/4"
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4. Voltage

24V	DC24V
110V	AC110V
220V	AC220V

5. Wiring

No mark	Lead Wire
D	DIN Connector
DL	DIN Connector w/Lamp Indicator

6. Manual Override

No mark	Non-Lock
L	Lever-Lock

## Coil & Connector

### Coil



Voltage
DC24
AC 110V
AC 220V

Wiring
No mark    Lead Wire
D            DIN

### Connector



Lamp Indicator
No mark    No Lamp Indicator
L            w/ Lamp Indicator

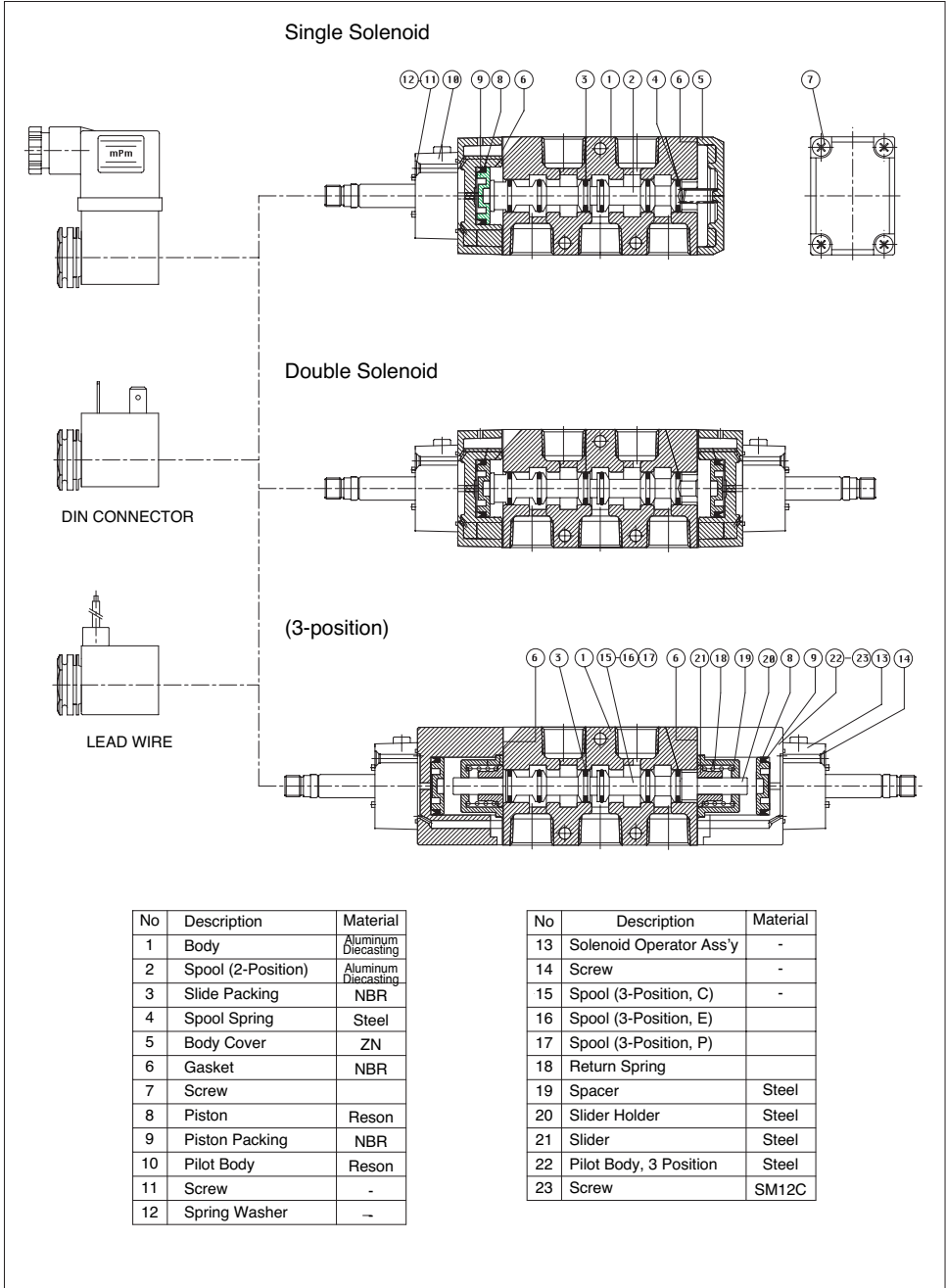
Voltage
No mark    No Lamp Indicator
24V            DC24
110V          AC 110V
220V          AC 220V

- **Explosion Proof Coil**  
Explosion Proof Coil can be applied to the PHS Series.  
Please refer To483 pages for detail information

- **Blanking Plate**  
Model : PHS530-BP

# PHS530 Series

## Construction

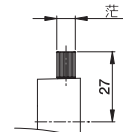
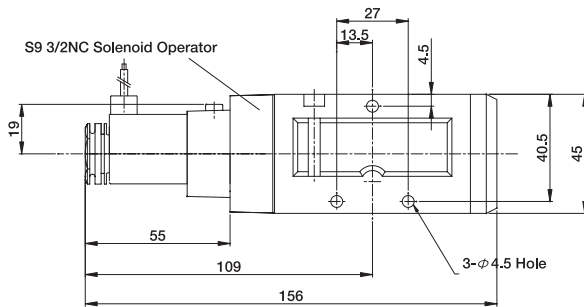
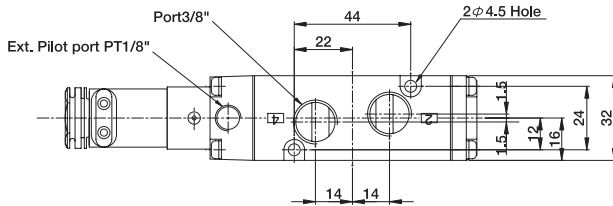


Dinemsins

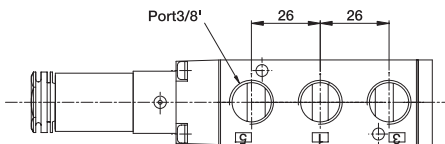
PHS530S

(Unit : mm)

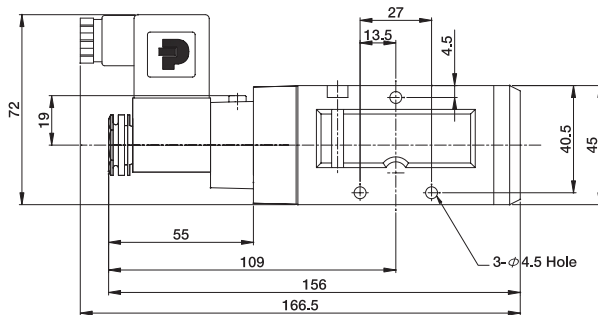
Lead wire Type



Lever-Lock Type



DIN Connector Type



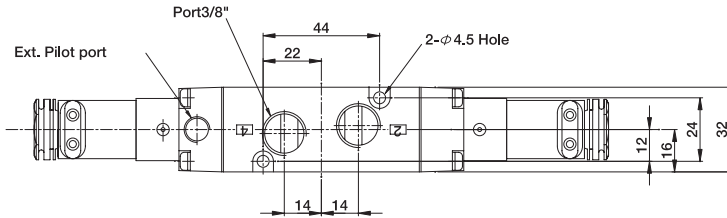
# PHS530 Series

Dinemsins

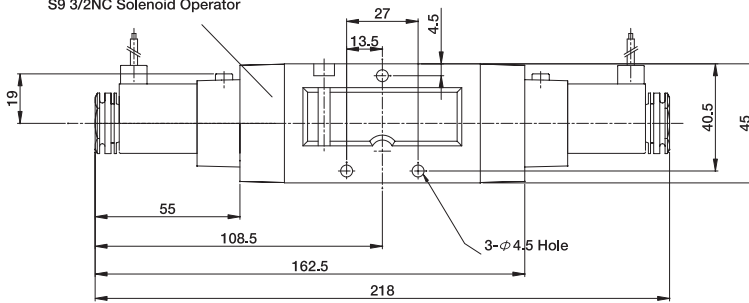
PHS530D

(Unit : mm)

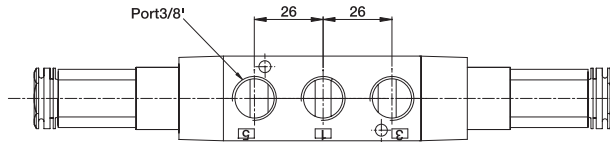
Lead wire Type



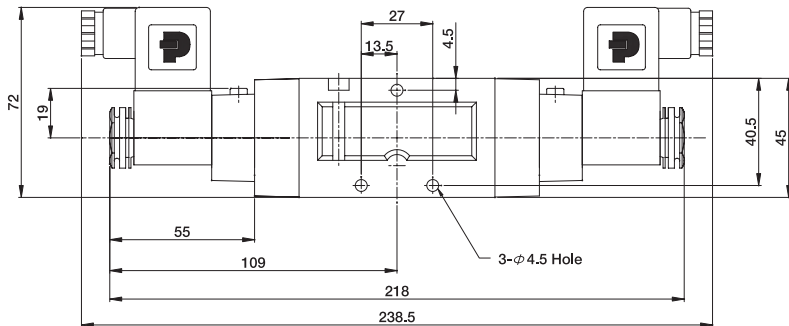
S9 3/2NC Solenoid Operator



Port 3/8"



DIN Connector Type







# PHS530 Series / Manifold

## ORDER KEY

**PHS530** — **M5**

Mountable Valve  
PHS530 Series

Number of Station

M2	2 Station
⋮	⋮
M9	9 Station

### Specification

Type		PHS520-M□	
		Common SUP, Common E	
Port Size		Port 2, 4 on the body	
		Port 1	RC 3/8
		Port 3, 5	RC 3/8
		Port 2, 4	RC 3/8
Station		2~9 Station	
Mounting		Direct mount	
Mountable Valve		PHS530 Series	
Blanking Plate		PHS530-BP	

## Dimensions

(Unit : mm)

(PHS530S, D)

(PHS530C, E, P)

# 5 Port Pilot Operated Solenoid Valve

# PHS541 Series

## Rubber Seal / In-Line Type

**PHS541S** 2 position  
Single Solenoid

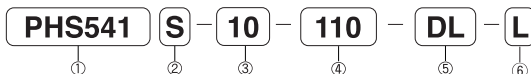
**PHS541D** 2 position  
Double Solenoid

### Specifications

Model No	Unit	PHS541S		PHS541SD	
Fluid		Non-lubricated / Lubricated Air			
Port Size		PT 3/8"	PT 1/2"	PT 3/8"	PT 1/2"
Effective Area	mm <sup>2</sup> (CV)	53(2.9)	56(3.0)	53(2.9)	56(3.0)
Temperature Range	°C	5~60			
Pressure Range	MPA(bar)	0.15~0.9(1.5~9.0)			
Response Time	ms	50 or less			
Exhaust Type		Individual Exhaust			
Manual Override		Non-lock(Standard), Lever-lock(Option)			

### Electrical Specifications

Voltage	Unit	DC24D, AC110V, AC220V(50~60Hz)
Allowable Voltage Fluctuation	%	± 10%
Power Consumption	W, VA	DC24D(2.6W), AC110V(4VA), AC220V(3.5A)
Insulation class		F
Wiring		Lead Wire, DIN Connector
Indicator Light		LED



#### 1. Series

#### 2. Function

S	Single Solenoid
D	Double Solenoid

#### 3. Port Size

10	Rc 3/8"
15	RC 1/2"

#### 4. Voltage

24V	DC240V
110V	AC110V
220V	AC220V

#### 5. Wiring

NO mark	Lead Wire
D	DIN Connector
DL	DIN Connector w/ Lamp Indicator

#### 6. Manual Override

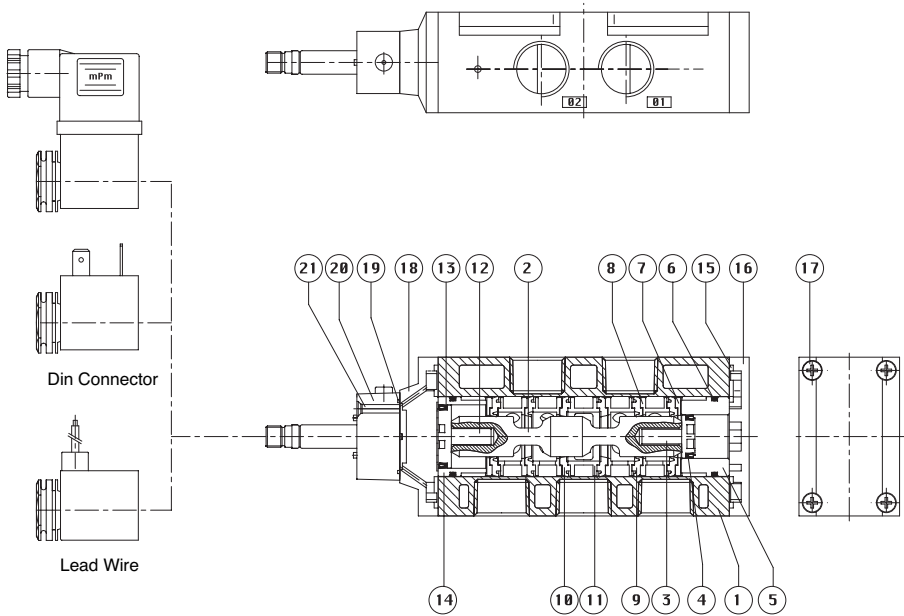
NO mark	Non-Lock
	Lever-Lock

# PHS541 Series

## Construction

(Unit : mm)

### Single Solenoid



No	Description	Material
1	Body	Aluminum Diecasting
2	Spool	Aluminum Diecasting
3	Return Piston	Resin
4	Cap Packing	NBR
5	Return Tube	Aluminum Diecasting
6	O-Ring	NBR
7	Sleeve Liner	Reson
8	Sleeve-B	Aluminum Diecasting
9	Side Sleeve Packing	Rrethane
10	In Sleeve Packing	Rrethane
11	Sleeve-A	Reson

No	Description	Material
13	Motion Piston	Resin
14	Spool Packing	NBR
15	Motion Tuve	Aluminum Diecasting
16	Pilot Gasket	NBR
17	Body Cover	Aluminum Diecasting
18	Screw	
19	Pilot Body	
20	Pilot Gasket	NBR
21	S9 2/3 NC, Solenoid Operator Ass'y	
22	Lcrew	
23	Coil Nut	Nylon

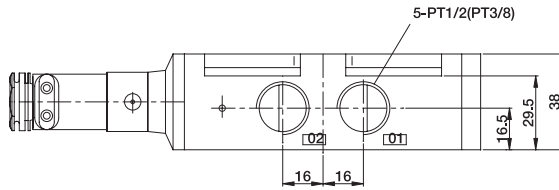
# PHS541 Series

Dinemsins

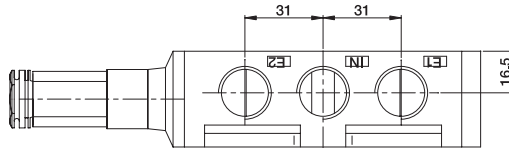
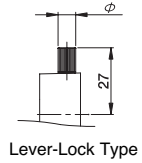
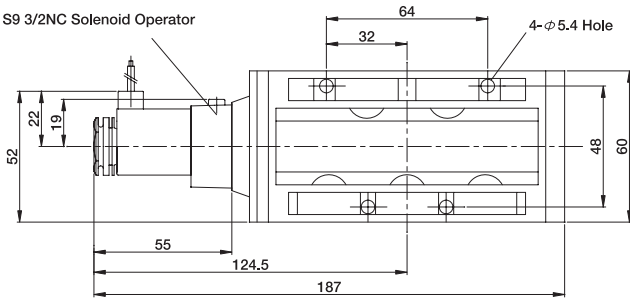
PHS541S

(Unit : mm)

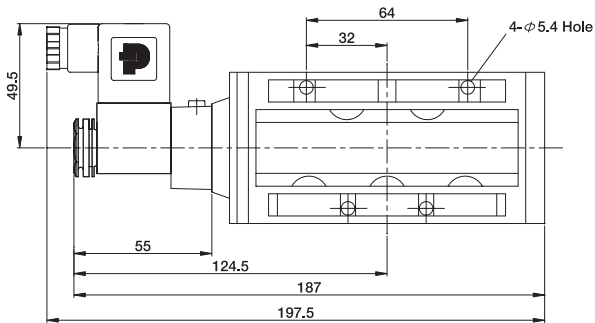
Lead wire Type



S9 3/2NC Solenoid Operator



DIN Connector Type



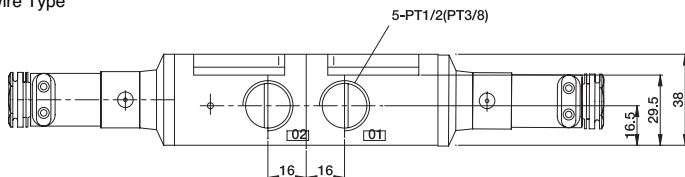
# PHS541 Series

Dinemsins

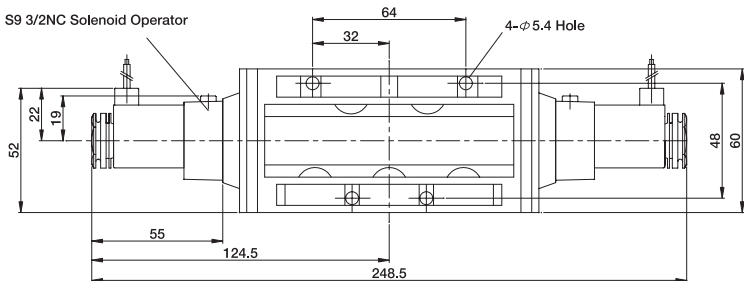
PHS541D

(Unit : mm)

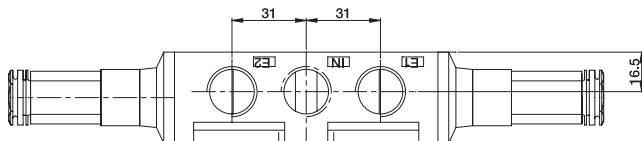
Lead wire Type



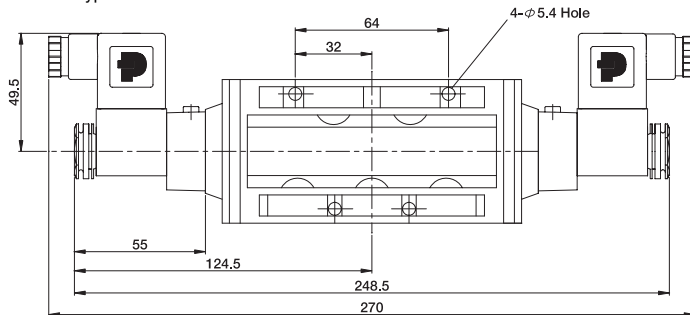
S9 3/2NC Solenoid Operator



Lever-Lock Type



DIN Connector Type



# 5 Port Pilot Operated Solenoid Valve

# PHS540 Series

## Rubber Seal / In-Line Type

**PHS540S** 2 Position  
Single solenoid

**PHS540D** 2 Position  
Double Solenoid



### Specifications

Model No	Unit	PHS540S		PHS540D	
Fluid		Non-lubricated / Lubricated Air			
Port Size		PT 3/8"	PT 1/2"	PT 3/8"	PT 1/2"
Effective Area	mm <sup>2</sup> (CV)	53(2.9)	56(3.0)	53(2.9)	56(3.0)
Temperature Range	°C	5~60			
Pressure Range	MPA(bar)	0.15~0.9(1.5~9.0)			
Response Time	ms	50 or less			
Exhaust Type		Individual Exhaust			
Manual Override		Non-lock(Standard), Lever-lock(Optional)			

### Electrical Specifications

Voltage	Unit	DC24D, AC110V, AC220V(50~60Hz)
Allowable Voltage Fluctuation	%	±10%
Power Consumption	W, VA	DC24D(2.6W), AC110V(4VA), AC220V(3.5A)
Insulation class		F
Wiring		Lead Wire, Connector
Indicator Light		LED

### ORDER KEY

PHS540
S
10
110
DL
6

①
②
③
④
⑤
⑥

#### 1. Series

#### 2. Function

S	Single Solenoid
D	Double Solenoid

#### 3. Port Size

10	Rc 3/8"
15	RC 1/2"

#### 4. Voltage

24V	DC240V
110V	AC110V
220V	AC220V

#### 5. Wiring

NO mark	Lead Wire
D	DIN Connector
DL	DIN Connector w/ Lamp Indicator

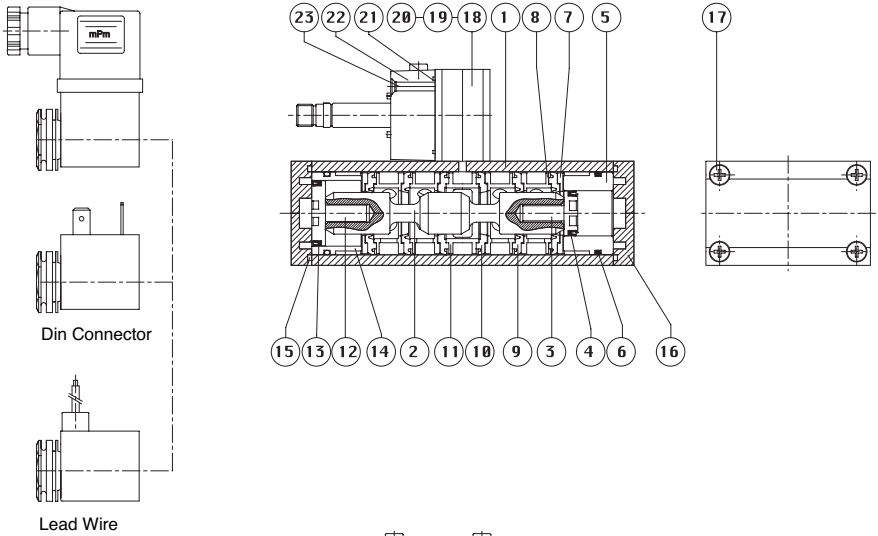
#### 6. Manual Override

NO mark	Non-Lock
L	Lever-Lock

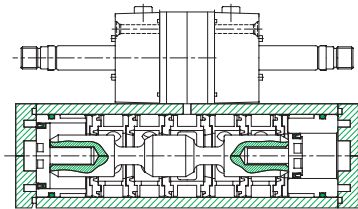
# PHS540 Series

## Construction

### Single Solenoid



### Double Solenoid



No	Description	Material
1	Body	Aluminum Diecasting
2	Spool	Aluminum Diecasting
3	Return Piston	Plastic
4	Cap Packing	NBR
5	Return Tube	Aluminum Diecasting
6	O-Ring	NBR
7	Sleeve Liner	Plastic
8	Sleeve-B	Aluminum Diecasting
9	Side Sleeve Packing	Urethane
10	In Sleeve Packing	Urethane
11	Sleeve-A	Plastic
12	Motion Piston	Plastic

No	Description	Material
13	Spool Packing	NBR
14	Motion Piston	
15	Spool Packing	NBR
16	Motion Tuve	Aluminum Diecasting
17	Pilot Gasket	
18	Body Cover	
19	Screw	
20	Pilot Body	NBR
21	Pilot Gasket	NBR
22	S9 2/3 NC, Solenoid Operator Ass'y	
23	Lcrew	
24	Coil Nut	NYLON

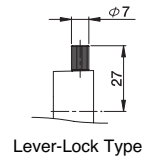
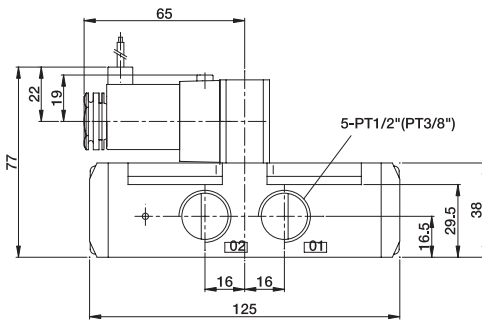
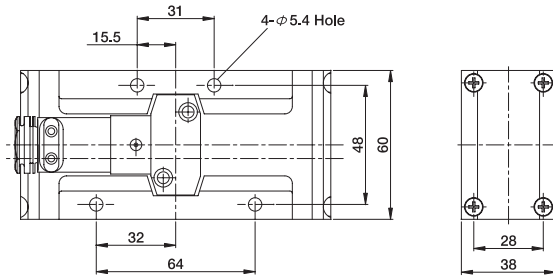
# PHS540 Series

## Dimensions

### PHS540S

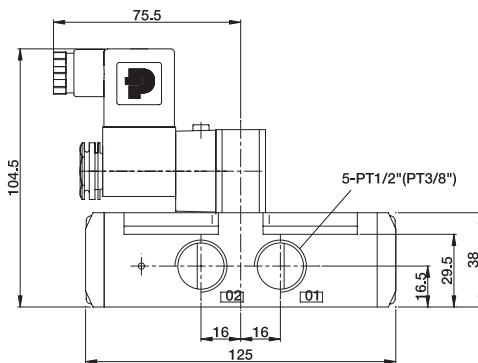
(Unit : mm)

Lead wire Type



Lever-Lock Type

DIN Connector Type





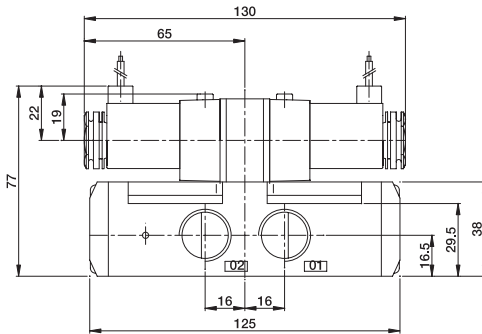
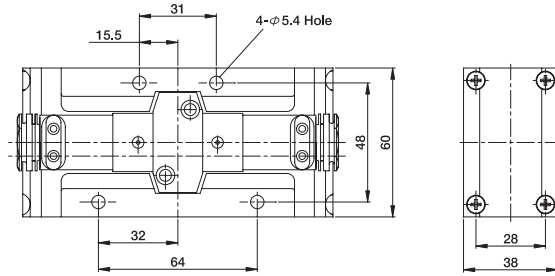
# PHS540 Series

## Dimensions

### PHS540D

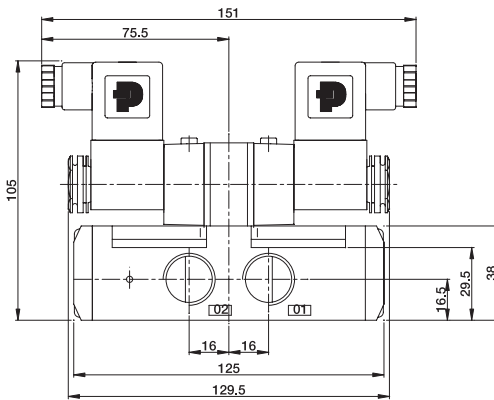
(Unit : mm)

Lead wire Type



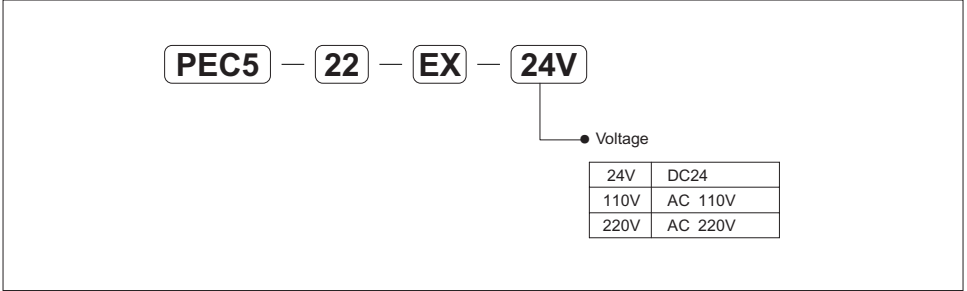
Lever-Lock Type

DIN Connector Type



# Explosion Proof Coil for PHS Series

## ORDER KEY



## Explosion Proof Grade

