

## » Solenoid Valve

- Manufactured by high precision CNC machines.
- Over 30 years experience in solenoid valve and coil manufacturing.
- Low power coils maintain a lower operating temperature, extending the life cycle and performance of your component.
- We offer an extensive line of solenoid valves ranging from 1mm–300mm, and can accommodate pressures exceeding 100Bar and temperatures from  $-100^{\circ}\text{C}$  to  $+250^{\circ}\text{C}$ .
- Fully automated solenoid valve testing system.
- Fully automated production of the solenoid pilot valves.
- Our coils are specifically treated to reduce the residual magnetism of the valve.



## Internal Structure & Categories of Two Way Solenoid Valves

### Direct acting solenoid valves

Direct acting solenoid valves utilize a simple structure to provide dependable performance at high frequencies and are available in both normal close style (N.C) and normal open style (N.O). The N.C style is designed to stay closed while the power is off. When the power is on, an electro-magnetic force accumulates in the coil which extends the spring and opens the valve.

### Diaphragm pilot solenoid valves

The diaphragm pilot solenoid valve works with the main valve. When the power is on, electro-magnetic force pulls the pilot valve open. When power is off or disconnected, gravity and spring force function to close the valve. These valves are typically larger with greater working pressure.

### Piston pilot solenoid valves

Similar to the diaphragm pilot solenoid, the piston pilot solenoid valve functions in a normal open/normal closed style, but supports even higher pressure and temperatures.

## Applicable Fluid Counterpart Table

Working Medium Material	Dry Air	Carbon Dioxide	Nitrogen	Argon	Oxygen	Hydrogen	Natural Gas*	Pipeline Gas*	Water	Pure Water	Low Pressure Vapor	High Temperature Water (120°C)	Turbine Oil ISO VG32	JIS# 10II
NBR	○	○	○	○	○	○	○	○	○	○	△	△	○	○
EPDM	○	○	○	△	○	△	○	△	○	○	○	○	△	△
VITON	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Brass	○	○	○	○	○	○	○	○	○	△	○	○	○	○
Stainless Steel	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Working Medium Material	JIS# 20II	Heavy Oil	Vegetable Oil	Inorganic Engine Oil	Lipid Engine Oil	Conductive Silicone Oil	Glycol*	Glycol (High Purity Alcohol)*	Glycol (Industrial Ethyl Alcohol)*	Acetone*	Vacuum (Medium Vacuum)	Vacuum (Medium Vacuum)
NBR	○	○	○	○	○	○	○	○	△	△	○	△
EPDM	△	△	△	△	△	△	○	○	△	○	○	△
VITON	○	○	○	○	○	○	○	○	△	△	○	△
Brass	○	○	○	○	○	○	○	○	△	○	○	○
Stainless Steel	○	○	○	○	○	○	○	○	○	○	○	○

Note:

- =Excellent ( Has Little or no effect ) ;  
○=Good ( Has little effect or can be used on certain condition ) ;  
△=Unavailable ( Has a great effect ) ;
- The symbol “\*” means that working medium is inflammable & explosive. The corresponding explosion-proof coil should be used in this case;
- Only Direct Acting Solenoid Valve ( the exit end connected with negative voltage) could be used in vacuum environment. Pilot Solenoid Valve is unavailable;
- If the working medium is not in the above list, Please consult our technical department before using.

## Key Points for Installation and Usage

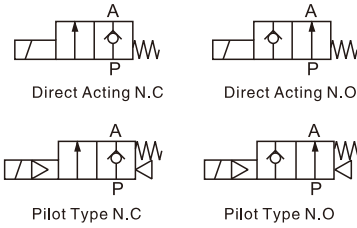
- Before installing, check if the products are damaged during transportation. Check the technical specifications(working pressure, working temperature, working voltage, etc).
- Complete cleaning of pipeline is required, in order to remove dust, particles, oil, etc(complete blow via air-blow gun, or empty the front-end pipelines completely)
- Particles in the medium will speed-up the wearing of valve seat and amature, causing leakage or even completely disabling the product. Filter should be installed at the inlet of the valve. 40 μm air filter element or filter nets of 80-100 μm is recommended. And filter element/filter net should be cleaned/replaced regularly.
- The debris of pipe thread and sealing tape shall not get inside the valve when mounting the valve fittings to the pipe. When using sealing tape, do not apply the tape onto the first 1.5-2 thread pitches.
- The coil shall be mounted vertically and upward. The inlet and outlet of the valve should be horizontal(for the inlet/outlet, a tilt angle up to 45 degree is acceptable if mounting space is limited. However, the coil should never be pointed downward). Also, make sure the direction of pipe connection matches the marks on the valve(examples of signs/marks: In/out, or 1/2, In/1(inlet) or other marks like directional arrow ( → )

## Key Points for Installation and Usage

6. No external force is allowed on the coil. When the coil is screwed into the pipe, clamp the wrench on the mounting position on the pipe only.
7. Grounding of the pipeline is not allowed. Otherwise, this will cause electrochemical corrosion of the system.
8. Please install overflow valve in pipeline, in order to prevent the accumulation of fluid in the pipe.
9. Do not cover the coil with any thermal insulation material. This will cause the coil overheat and damage the coil.
10. Though the coil is calibrated as 100% ED, continuous switch-on over a long period of time can result in overheating, which will accelerate aging of the insulation, decrease performance of the solenoid valve, and reduce coil life and cause more energy consumption from overheating. Therefore, if needs to switch on continuously for a long time, it shall consider to use normal open solenoid valve or use energy-saving low-power consumption coil, to extend coil life and save energy.
11. Do not mount the valve in the places that have strong vibration. If this cannot be avoided, please set the arm of force to minimal to avoid resonance.
12. The diameter of the cable should be larger than 5mm<sup>2</sup>. No additional force should be applied to the cable.
13. No Electro-self-sustained oscillation is allowed in the electrical circuit for the valve.
14. The solenoid valve coil can not be connected to wrong voltage (such as DC24V coil connected to AC220V voltage), the coil shall be assembled with valve body before switch on, otherwise it will burn the coil. And the voltage applied shall be within the specified voltage range, so as to avoid valve malfunction.
15. The fluctuation of the voltage should be within -10%~+10% of the standard voltage. When DC responsiveness is very important, the fluctuation of the voltage should be within -5%~+5% of the standard voltage. The voltage should be lowered to the voltage of the cable connecting to the coil.
16. The disconnecting voltage for AC type solenoid valve should be lower than 20% of the standard voltage. For DC type, the disconnecting voltage should be lower than 2% of the DC valve.
17. If the valve needs to be stored for prolonged period after using water-type fluid, the water and moisture should be completely removed, to prevent the generation of stain and the corrosion of the rubber parts.
18. The required period for valve-state changing is influenced by the type and characteristics of the fluid. When using pure water as standard, please change the state of the valve (from open to close, and vice-versa) at least once every 10 days. If the period is longer than 10 days, detecting system should be installed. The valves should be inspected every half a year at the minimal, in order to keep the valve in optimal working condition.
19. Tips against harmful condensation and freezing: Condensation and freezing of water should be prevented when the valve is used under low temperature. A high dew-point temperature, the low temperature of the environment and large flow passing through the valve may lead to freezing. Air dryer and thermal insulation of the valve body should be used as prevention method. However, the coil should not be exposed to heater, or covered by thermal insulation material.
20. Please ensure the compatibility of the fluid and valve material when choosing the valve type. As a general reference, the maximum viscosity of the fluid should be no higher than 50cst.
21. The leakage of valve's inlet and outlet should be strictly prohibited when the valve is used for combustible oil and gas. Also, Explosion-proof coil should be chosen.
22. When the pipeline does not accept oil, please choose oil-prohibitive types of valve and parts.
23. Before maintenance of the solenoid valve, Electricity should be cut off, upstream fluid should be shut down, the pressure inside the pipeline must be removed.
24. The surface temperature is high for coil surface (especially true when the valve is used for high temperature fluid), therefore, there's a risk of injury due to burn when personall directly contacts the valve and coil.
25. For pilot type 2/2 solenoid valves, the moment of start-up of fluid supplying source (pumps, compressors, etc) will introduce a sudden increase of pressure, this may cause the valve to open momentarily, even when the valve is closed. This may cause the leakage of the fluid, please be cautious.
26. The thread size of the fluid inlet should not be smaller than the orifice of the valve body. Otherwise, when the valve is opened, the difference between in/out air pressure may be lower than the minimal difference of acting pressure. This may cause the vibration of diaphragm for pilot type solenoid valves.
27. When the pilot valve is closed, the pressure is above the minimum operating pressure difference, but due to bending or throttling of the supply piping (like pump, compressor, etc.), please note that the differential pressure may be lower than the minimum operation differential pressure when the valve is opened, which leads the valve can not be fully opened or the diaphragm vibrates abnormally.
28. Please refer to low power solenoid valve instructions when using low power solenoid valves.

## ELP

### Solenoid Valve



### How to Order ?

Series	Port Size	Orifice	Orifice	ID Code	Voltage	Cover Color	Valve Body Material	Seal Material	Thread Type
ELP		Blank; N.C. H: N.O.	Blank: 1.5mm N: Energy Saving Type	Standard Type N: Energy Saving Type			Blank: Brass	Blank: NBR E: EPDM V: VITON (Only VITON is available for 1/8", 1/4" port)	Blank: G P: PT T: NPT
	06: 1/8"		015: 1.5mm		E1: AC110V				
	08: 1/4"		020: 2.0mm		E2: AC220V	Blank: Black (only for DBK waterproof type)			
	10: 3/8"		030: 3.0mm		E4: DC24V	J: Colorless and translucent (only for DB type)			
	15: 1/2"		040: 4.0mm		E5: DC12V				
	20: 3/4"		150: 15mm		E7: AC24V				
	25: 1"		200: 20mm						
			250: 25mm						

(Note: If orifice size same with port size, omit the orifice size.)

#### Order Example:

ELP series solenoid valve, 1/2 port size, N.C., 15mm orifice, AC220V, black cover color, brass valve body, NBR seal, G thread, ERP code is: ELP15E2

### Product Features

- \* 2/2 solenoid valve, brass valve body, compact design, saving space.
- \* Three types seals are optional, including NBR, EPDM and VITON, catering to different medium requirements.
- \* Direct acting solenoid valve with VITON seal, 4 pressure types are optional: standard, high pressure, ultra high pressure and large flow type.
- \* Well sealed water proof connector, protection grade of IP65.
- \* Reduce power consumption up to 80%.

### Specifications

Model	Direct Acting N.C.								Direct Acting N.O.							
	ELP06-015-V	ELP08-015-V	ELP06-020-V	ELP08-020-V	ELP06-030-V	ELP08-030-V	ELP06-040-V	ELP08-040-V	ELP06H-015-V	ELP08H-015-V	ELP06H-020-V	ELP08H-020-V	ELP06H-030-V	ELP08H-030-V	ELP06H-040-V	ELP08H-040-V
Port Size	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"
Orifice (mm) ①	1.5		2		3		4		1.5		2		3		4	
Cv	0.1		0.18		0.33		0.55		0.1		0.18		0.33		0.55	
Pressure Difference (Bar)	0~30		0~20		0~13		0~8		0~30		0~16		0~8		0~5	
Acting Type	Direct Acting NC.								Direct Acting NO.							
Power consumption	Standard type: AC:15VA DC10W Low power type: AC:4VA DC3W AC110V:7.0VA								Standard type: AC:12VA DC10W Low power type: AC:4VA DC3W AC110V:7.0VA							
Guaranteed Pressure (Bar)	45															
Medium	Air, Water, Hot water, Oil ( ≤20CST )															
Working Temperature (°C)	-20 ~ 80 ( No freezing )															
Voltage Range	-15 ~ 10%															
Insulations	F Class															
Protection grade	IP65(DIN40050)															
Valve Body Material	Brass															
Seal Material	VITON only															

① G、PT、NPT thread type is optional.

# ELP Series Solenoid Valve

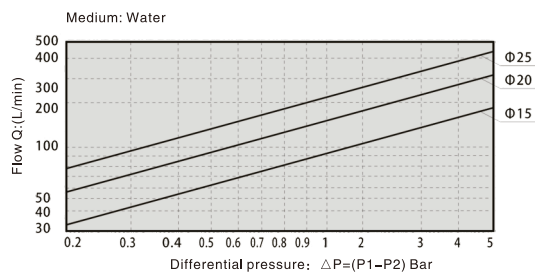
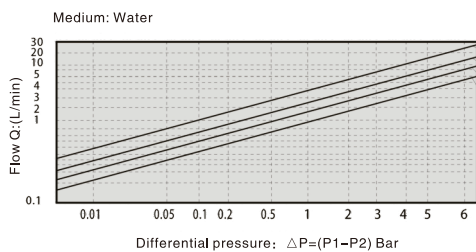
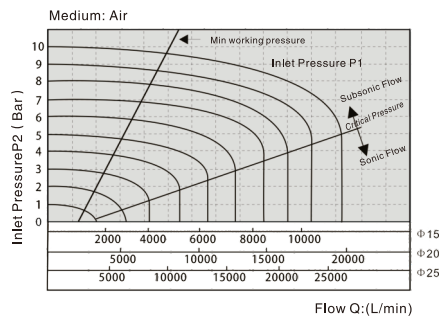
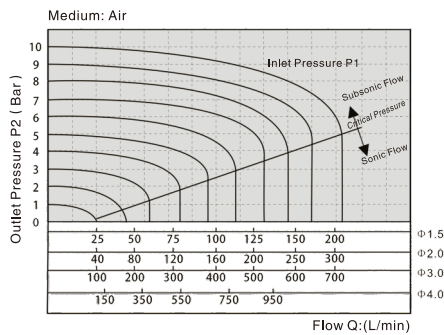


## Specifications

Model	Pilot Type N.C.				Pilot Type N.O.			
Code	ELP10-150	ELP15	ELP20	ELP25	ELP10H-150	ELP15H	ELP20H	ELP25H
Port Size ①	3/8"	1/2"	3/4"	1"	3/8"	1/2"	3/4"	1"
Orifice (mm)	15		20	25	15		20	25
Cv	5.0	5.5	9.5	12.5	5.0	5.5	9.5	12.5
Pressure Difference (Bar)	0.5-16				0.5-13			
Acting Type	Diaphragm pilot type N.C				Diaphragm pilot type N.O			
Power consumption	Standard type: AC:15VA DC10W Low power type: AC:4VA DC3W AC110V:7.0VA				Standard type: AC:12VA DC10W Low power type: AC:4VA DC3W AC110V:7.0VA			
Guaranteed Pressure (Bar)	25				20			
Medium	Air, Water, Hot water, Oil ( $\leq 20\text{CST}$ )							
Working Temperature (°C)	-20 ~ 80 (No freezing)							
Voltage Range	-15 ~ 10%							
Insulations	F Class							
Protection grade	IP65(DIN40050)							
Valve Body Material	Brass							
Seal Material	NBR, EPDM, VITON							

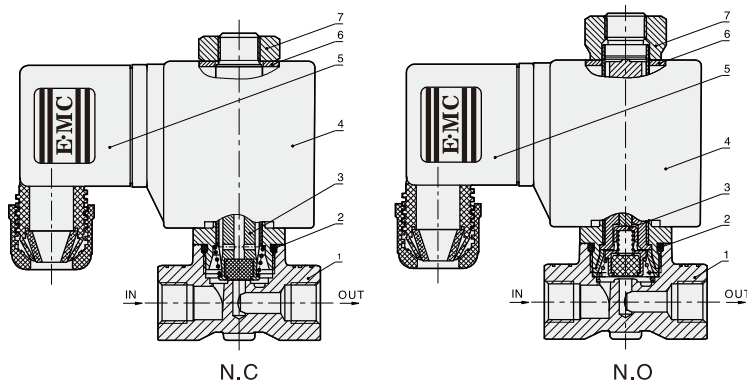
① G、PT、NPT thread type is optional.

## Flow Chart



## Internal Structure

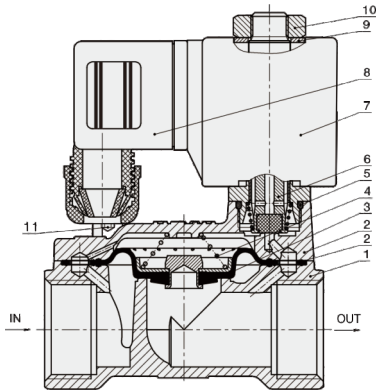
ELP06/08 Direct Acting Type:



No.	Part Name
1	Valve Body
2	O-ring
3	Iron Core Components
4	Coil
5	Water Proof Connector
6	Internal Teeth Washer
7	Hexagon nut

## Internal Structure

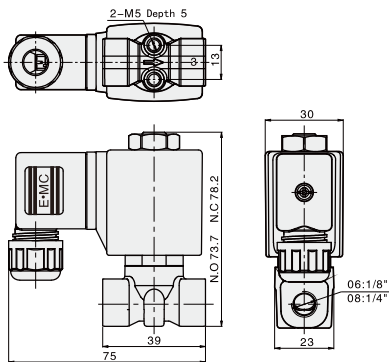
Pilot Type



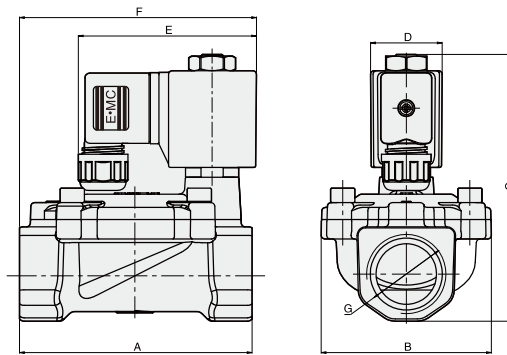
No.	Part Name
1	Valve Body
2	Spacer
3	Diaphragm Components
4	Spring
5	O-ring
6	Iron Core Components
7	Coil
8	Water Proof Connector
9	Gasket
10	Internal Teeth Washer
11	Screw

## Mounting Dimension

ELP06/08 Direct Acting Type



Pilot Type



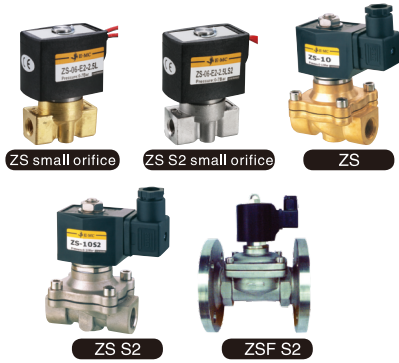
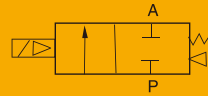
Model	A	B	C		D	E	F	G(Port)
			N.C	N.O				
ELP10	66	47	95	99.2	30	74	74	3/8"
ELP15	66	47	95	99.2	30	74	74	1/2"
ELP20	75	56	102	106.2	30	74	79	3/4"
ELP25	96	71	111	115.2	30	74	98	1"

# ZS Series 2/2 Solenoid Valve(Normal Close)



## ZS

2/2 Solenoid Valve ( N.C. )



### Product Features

- \* Normal close/Normal open, available body: brass, SS304, SS316
- \* Multiple seals are available for different medium
- \* To reduce the power consumption of 80% energy-saving
- \* Wide size range from 1/8" to 2", with both thread and flange connection
- \* Diaphragm pilot solenoid valve, with lower working pressure (10mm is special)

### How to Order?

Series No.	Port size	Original status	Orifice	ID Code	Voltage	Valve body material	Seal material	Thread type
ZS: Thread connection ZSF: Flange connection		Blank: NC H: NO		Blank: Standard type N: Low power type		Blank: Brass S1: SS316 S2: SS304	Blank: NBR E: EPDM V: VITON Si: Silicon ( smaller than $\Phi 25\text{mm}$ is optional )	Blank: G P: PT T: NPT
	06: 1/8"		025: 2.5mm		E1: AC110V E6: AC36V			
	08: 1/4"		025: 2.5mm 100: 10mm		E2: AC220V E7: AC24V			
	10: 3/8"		040: 4mm 160: 16mm		E3: AC380V E8: DC110V			
			100: 10mm		E4: DC24V E9: DC48V			
	15: 1/2"		100: 10mm 160: 16mm		E5: DC12V E10: DC36V			
	20: 3/4"		200: 20mm					
	25: 1"		250: 25mm					
	32: 1-1/4"		350: 35mm					
	40: 1-1/2"		400: 40mm					
	50: 2"		500: 50mm					
	Flange connection		250: 25mm 650: 65mm					
			320: 32mm 800: 80mm					
			400: 40mm 1000: 100mm					
			500: 50mm					

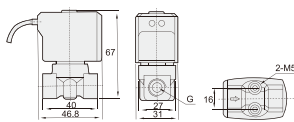
( Note: cancel if same with port size )

### Order Example:

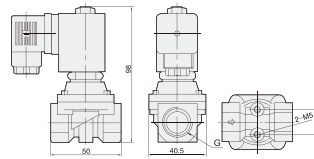
ZS series solenoid valve, 1/2" port size, NC, 16mm orifice, standard type, AC110V, Brass valve body, NBR seal, G thread, ERP code is: ZS15-160E1  
Note: 2.5mm small orifice valve only with flying leads coil, other orifice with DIN connector coil.

### Main Dimension

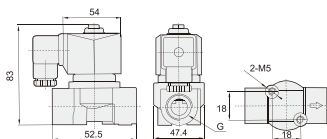
$\Phi 2.5\text{mm}$  1/8" 1/4"



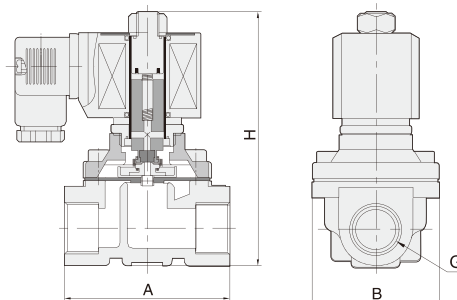
10mm, 1/4", 3/8", 1/2"



$\Phi 4\text{mm}$  3/8"



Large diameter



# ZS Series 2/2 Solenoid Valve(Normal Close)



## Specifications

Port size (G)	Orifice (mm)	CV value	Min. pressure	Pressure difference ( Bar )						Max. temperature (°C)	Power		Order code		Main dimension Length x Width x Height A x B x H(mm)
				Max. working pressure							AC 220	DC 24V	220VAC		
				Air, Gas		Hot water, Liquid		Light oil ≤20CST					Brass	Stainless steel 304	
1/8 "	2.5	0.23	0	7	5	7	5	7	5	80	13	8.5	ZS06-025E2	ZS06-025E2S2	46.8 x 31 x 67
	2.5	0.23	0	7	5	7	5	-	-	120	13	8.5	ZS06-025E2E	ZS06-025E2S2E	46.8 x 31 x 67
	2.5	0.23	0	7	5	7	5	7	5	120	13	8.5	ZS06-025E2V	ZS06-025E2S2V	46.8 x 31 x 67
1/4 "	2.5	0.23	0	7	5	7	5	7	5	80	13	8.5	ZS08-025E2	ZS08-025E2S2	46.8 x 31 x 67
	2.5	0.23	0	7	5	7	5	-	-	120	13	8.5	ZS08-025E2E	ZS08-025E2S2E	46.8 x 31 x 67
	2.5	0.23	0	7	5	7	5	7	5	120	13	8.5	ZS08-025E2V	ZS08-025E2S2V	46.8 x 31 x 67
	10	1	0	20	16	20	16	20	16	80	22	13	ZS08-100E2	-	50 x 40.5 x 98
	10	1	0	20	16	20	16	-	-	120	22	13	ZS08-100E2E	-	50 x 40.5 x 98
3/8 "	4	0.6	0	8	5	8	5	5	5	80	33	20	ZS10-040E2	ZS10-040E2S2	52.5 x 47.5 x 83
	4	0.6	0	8	5	8	5	-	-	120	33	20	ZS10-040E2E	ZS10-040E2S2E	52.5 x 47.5 x 83
	4	0.6	0	8	5	8	5	5	5	120	33	20	ZS10-040E2V	ZS10-040E2S2V	52.5 x 47.5 x 83
	10	1.8	0	20	16	20	16	20	16	80	22	13	ZS10E2	-	50 x 40.5 x 98
	10	1.8	0	20	16	20	16	-	-	120	22	13	ZS10E2E	-	50 x 40.5 x 98
	10	1.8	0	20	16	20	16	20	16	120	22	13	ZS10E2V	-	50 x 40.5 x 98
	16	4.8	0	10	6	10	6	7	4	80	33	20	ZS10-160E2	ZS10-160E2S2	69 x 75 x 106
	16	4.8	0	10	6	10	6	-	-	120	33	20	ZS10-160E2E	ZS10-160E2S2E	69 x 75 x 106
1/2 "	10	1.9	0	20	16	20	16	20	16	80	22	13	ZS15-100E2	-	69 x 75 x 106
	10	1.9	0	20	16	20	16	-	-	130	22	13	ZS15-100E2E	-	69 x 75 x 106
	10	1.9	0	20	16	20	16	20	16	120	22	13	ZS15-100E2V	-	69 x 75 x 106
	16	4.8	0	10	6	10	6	7	4	80	33	20	ZS15-160E2	ZS15-160E2S2	69 x 75 x 106
	16	4.8	0	10	6	10	6	-	-	130	33	20	ZS15-160E2E	ZS15-160E2S2E	69 x 75 x 106
3/4 "	20	7.6	0	10	6	10	6	7	4	80	33	20	ZS20E2	ZS20E2S2	73 x 57 x 114
	20	7.6	0	10	6	10	6	-	-	130	33	20	ZS20E2E	ZS20E2S2E	73 x 57 x 114
	20	7.6	0	10	6	10	6	7	4	120	33	20	ZS20E2V	ZS20E2S2V	73 x 57 x 114
1 "	25	12	0	10	6	10	6	7	4	80	33	20	ZS25E2	ZS25E2S2	99 x 77 x 121
	25	12	0	10	6	10	6	-	-	120	33	20	ZS25E2E	ZS25E2S2E	99 x 77 x 121
	25	12	0	10	6	10	6	7	4	120	33	20	ZS25E2V	ZS25E2S2V	99 x 77 x 121
	25	12	0	10	6	3	3	-	-	120	33	20	ZS25E2G	ZS25E2S2G	99 x 77 x 121
1-1/4 "	35	24	0	10	6	10	6	7	4	80	70	40	ZS32-350E2	ZS32-350E2S2	112 x 86.5 x 150
	35	24	0	10	6	10	-	-	-	120	70	40	ZS32-350E2E	ZS32-350E2S2E	112 x 86.5 x 150
	35	24	0	10	6	10	6	7	4	120	70	40	ZS32-350E2V	ZS32-350E2S2V	112 x 86.5 x 150
1-1/2 "	40	29	0	10	6	10	6	7	4	80	70	40	ZS40E2	ZS40E2S2	123 x 94 x 160
	40	29	0	10	6	10	-	-	-	120	70	40	ZS40E2E	ZS40E2S2E	123 x 94 x 160
	40	29	0	10	6	10	6	7	7	120	70	40	ZS40E2V	ZS40E2S2V	123 x 94 x 160
2 "	50	48	0	10	6	10	6	7	4	80	70	40	ZS50E2	ZS50E2S2	168 x 123 x 183
	50	48	0	10	6	10	-	-	-	120	70	40	ZS50E2E	ZS50E2S2E	168 x 123 x 183
	50	48	0	10	6	10	6	7	4	120	70	40	ZS50E2V	ZS50E2S2V	168 x 123 x 183
Flange 4 hole	25	12	0	10	6	10	6	7	4	80	70	40	-	ZSF25E2S2	140 x 115 x 160
	25	12	0	10	6	10	-	-	-	130	70	40	-	ZSF25E2S2E	140 x 115 x 160
	25	12	0	10	6	10	6	7	4	120	70	40	-	ZSF25E2S2V	140 x 115 x 160
	32	24	0	10	6	10	6	7	4	80	70	40	-	ZSF32-350E2S2	152 x 135 x 215
	32	24	0	10	6	10	-	-	-	130	70	40	-	ZSF32-350E2S2E	152 x 135 x 215
	32	24	0	10	6	10	6	7	4	120	70	40	-	ZSF32-350E2S2V	152 x 135 x 215
	40	29	0	10	6	10	6	7	4	80	70	40	-	ZSF40E2S2	152 x 135 x 215
	40	29	0	10	6	10	-	-	-	130	70	40	-	ZSF40E2S2E	152 x 135 x 215
	40	29	0	10	6	10	6	7	4	120	70	40	-	ZSF40E2S2V	152 x 135 x 215
	50	48	0	10	6	10	6	7	4	80	70	40	-	ZSF50E2S2	195 x 160 x 220
	50	48	0	10	6	10	6	-	-	130	70	40	-	ZSF50E2S2E	195 x 160 x 220
	50	48	0	10	6	10	6	7	4	120	70	40	-	ZSF50E2S2V	195 x 160 x 220
	65	75	0	6	5	6	5	3	2	80	55	64	-	ZSF65E2S2	250 x 185 x 308
	65	75	0	6	5	6	5	-	-	120	55	64	-	ZSF65E2S2E	250 x 185 x 308
	65	75	0	6	5	6	5	3	2	120	55	64	-	ZSF65E2S2V	250 x 185 x 308
	80	90	0	6	5	6	5	3	2	80	55	64	-	ZSF80E2S2	270 x 202 x 320
	80	90	0	6	5	6	5	-	-	120	55	64	-	ZSF80E2S2E	270 x 202 x 320
	80	90	0	6	5	6	5	3	2	120	55	64	-	ZSF80E2S2V	270 x 202 x 320
	100	160	0	6	5	6	5	3	2	80	55	64	-	ZSF100E2S2	342 x 222 x 345
	100	160	0	6	5	6	5	-	-	120	55	64	-	ZSF100E2S2E	342 x 222 x 345
100	160	0	6	5	6	5	3	2	120	55	64	-	ZSF100E2S2V	342 x 222 x 345	

2  
ZS

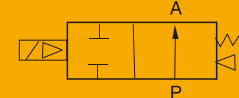
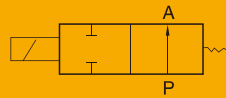


# ZS-H Series 2/2 Solenoid Valve(Normal Open)



## ZS-H

2/2 Solenoid Valve ( N.O. )



ZS-10H

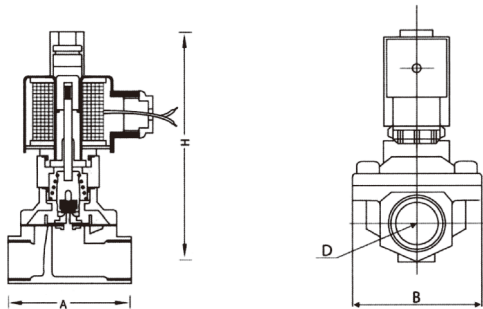


ZS-15HS2

### Product Features

- \* 2/2 ways Solenoid valve, Normally open. Copper and stainless steel 304 valve selection
- \* Multiple seals are available for different medium
- \* Wide size range from 3/8" to 2", with both thread and flange connection
- \* Diaphragm pilot solenoid valve, with lower working pressure
- \* To reduce the power consumption of 80% energy-saving

### Main Dimension

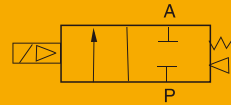


### Specifications

Port size	Orifice (mm)	CV value	Pressure difference ( Bar )								The maximum temperature of fluid (°C)	ZSH			ZSHN		Order code		Main dimension Length x Width x Height A x B x H (mm)
			Max. working pressure									VA	W	W	Brass	Stainless steel 304			
			Air, Gas		Water, Hot water, Liquid		Light oil ≤20CST		220VAC	50/60HZ									
Min. pressure	AC	DC	AC	DC	AC	DC	AC	DC	AC220	DC24V	DC24V								
3/8"	4.0	0.6	0	5	3	5	3	3	3	80	33	20	4	ZS10H-040E2	ZS10H-040E2S2	52.5 x 32.5 x 115			
	4.0	0.6	0	5	3	5	3	-	-	120	33	20	4	ZS10H-040E2S2E	ZS10H-040E2S2E	52.5 x 32.5 x 115			
	4.0	0.6	0	5	3	5	3	3	3	120	33	20	4	ZS10H-040E2V	ZS10H-040E2S2V	52.5 x 32.5 x 115			
	16	4.8	0	5	3	3	5	3	3	80	33	20	4	ZS10H-160E2	ZS10H-160E2S2	69 x 57 x 135			
	16	4.8	0	5	3	3	5	-	-	120	33	20	4	ZS10H-160E2E	ZS10H-160E2S2E	69 x 57 x 135			
	16	4.8	0	5	3	3	5	3	3	120	33	20	4	ZS10H-160E2V	ZS10H-160E2S2V	69 x 57 x 135			
1/2"	16	4.8	0	5	3	5	3	3	3	80	33	20	4	ZS15H-160E2	ZS15H-160E2S2	69 x 57 x 135			
	16	4.8	0	5	3	5	3	-	-	120	33	20	4	ZS15H-160E2E	ZS15H-160E2S2E	69 x 57 x 135			
	16	4.8	0	5	3	5	3	3	3	120	33	20	4	ZS15H-160E2V	ZS15H-160E2S2V	69 x 57 x 135			
3/4"	20	7.6	0	5	3	5	3	3	3	80	33	20	4	ZS20HE2	ZS20HE2S2	73 x 57 x 142			
	20	7.6	0	5	3	5	3	-	-	120	33	20	4	ZS20HE2E	ZS20HE2S2E	73 x 57 x 142			
	20	7.6	0	5	3	5	3	3	3	120	33	20	4	ZS20HE2V	ZS20HE2S2V	73 x 57 x 142			
1"	25	12	0	5	3	5	3	3	3	80	33	20	4	ZS25HE2	ZS25HE2S2	99 x 77.5 x 150			
	25	12	0	5	3	5	3	-	-	120	33	20	4	ZS25HE2E	ZS25HE2S2E	99 x 77.5 x 150			
	25	12	0	5	3	5	3	3	3	120	33	20	4	ZS25HE2V	ZS25HE2S2V	99 x 77.5 x 150			
1-1/4"	32	24	0	5	3	5	3	3	3	80	70	55	-	ZS32HE2	ZS32HE2S2	112 x 86.5 x 180			
	32	24	0	5	3	5	3	-	-	120	70	55	-	ZS32HE2E	ZS32HE2S2E	112 x 86.5 x 180			
	32	24	0	5	3	5	3	3	3	120	70	55	-	ZS32HE2V	ZS32HE2S2V	112 x 86.5 x 180			
1-1/2"	40	29	0	5	3	5	3	3	3	80	70	55	-	ZS40HE2	ZS40HE2S2	123 x 94 x 190			
	40	29	0	5	3	5	3	-	-	120	70	55	-	ZS40HE2E	ZS40HE2S2E	123 x 94 x 190			
	40	29	0	5	3	5	3	3	3	120	70	55	-	ZS40HE2V	ZS40HE2S2V	123 x 94 x 190			
2"	50	48	0	5	3	5	3	3	3	80	70	55	-	ZS50HE2	ZS50HE2S2	168 x 123 x 216			
	50	48	0	5	3	5	3	-	-	120	70	55	-	ZS50HE2E	ZS50HE2S2E	168 x 123 x 216			
	50	48	0	5	3	5	3	3	3	120	70	55	-	ZS50HE2V	ZS50HE2S2V	168 x 123 x 216			
Flange 4 hole	25	12	0	5	3	5	3	3	3	80	57	32	6	-	ZSF25HE2S2	140 x 115 x 180			
	25	12	0	5	3	5	3	-	-	120	57	32	6	-	ZSF25HE2S2E	140 x 115 x 180			
	25	12	0	5	3	5	3	3	3	120	57	32	6	-	ZSF25HE2S2V	140 x 115 x 180			
	32	24	0	5	3	5	3	3	3	80	70	55	-	-	ZSF32HE2S2	152 x 135 x 235			
	32	24	0	5	3	5	3	-	-	120	70	55	-	-	ZSF32HE2S2E	152 x 135 x 235			
	32	24	0	5	3	5	3	3	3	120	70	55	-	-	ZSF32HE2S2V	152 x 135 x 235			
	40	29	0	5	3	5	3	3	3	80	70	55	-	-	ZSF40HE2S2	152 x 145 x 240			
	40	29	0	5	3	5	3	-	-	120	70	55	-	-	ZSF40HE2S2E	152 x 145 x 240			
	40	29	0	5	3	5	3	3	3	120	70	55	-	-	ZSF40HE2S2V	152 x 145 x 240			
	50	48	0	5	3	5	3	3	3	80	70	55	-	-	ZSF50HE2S2	195 x 160 x 255			
	50	48	0	5	3	5	3	-	-	120	70	55	-	-	ZSF50HE2S2E	195 x 160 x 255			
	50	48	0	5	3	5	3	3	3	120	70	55	-	-	ZSF50HE2S2V	195 x 160 x 255			

## SLP

2/2 Solenoid Valve ( N.C. )



SLP



SLP-S1



SLPF-S1

### Product Features

- \* Normal close, available body: brass, SS316
- \* Multiple seals are available for different medium
- \* Wide size range from 1/8" to 2" , with both thread and flange connection
- \* Diaphragm pilot solenoid valve, with lower working pressure
- \* To reduce the power consumption of 80% energy-saving

### How to Order?

Series No.	Port Size	Original Status—Orifice	ID Code	Voltage	Valve Body Material	Seal Material	Thread Type
SLP: Thread connection SLPF: Flange connection		Blank: NC H: NO	Blank: Standard type N: Low power type		Blank: Brass S1: SS316	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT
06: 1/8"		010: 1mm	030: 3mm	E1: AC110V	E6: AC36V		
08: 1/4"		015: 1.5mm	105: 10.5mm	E2: AC220V	E7: AC24V		
		025: 2.5mm	130: 13mm	E3: AC380V	E8: DC110V		
10: 3/8"		015: 1.5mm	040: 4mm	E4: DC24V	E9: DC48V		
15: 1/2"		030: 3mm	130: 13mm	E5: DC12V	E10: DC36V		
20: 3/4"		105: 10.5mm	130: 13mm				
25: 1"		200: 20mm					
25: 1"		250: 25mm					
32: 1-1/4"		350: 35mm					
40: 1-1/2"		400: 40mm					
50: 2"		500: 50mm					
Flange connection		250: 25mm	650: 65mm				
		350: 35mm	800: 80mm				
		400: 40mm	1000: 100mm				
		500: 50mm					

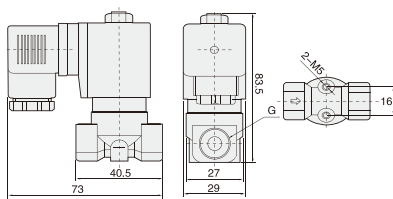
( Note: cancel if same with port size )

### Order Example:

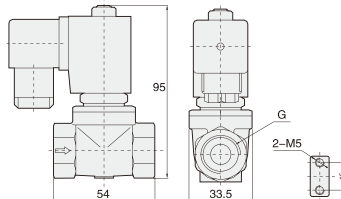
SLP series solenoid valve, 1/2 port size, NC, 13mm orifice, standard type, AC110V, Brass valve body, NBR seal, G thread, ERP code is: SLP15-130E1

### Main Dimension

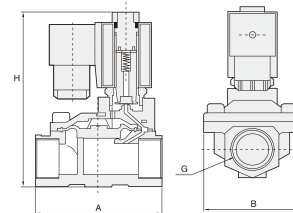
Φ3mm, Φ4mm, 1/8", 1/4", 3/8"



Φ10.5mm, 1/4", 3/8", 1/2"



Large diameter



# SLP Series 2/2 Solenoid Valve(Normal Close)



## Specifications

Port size (G)	Orifice (mm)	CV value	Pressure difference ( Bar )				Max. temperature (°C)	Power		Order code 220VAC 50/60Hz		Main dimension Length x Width x Height AxBxH(mm)
			Min. pressure	Max. working pressure				VA AC 220	W DC 24V	Brass	Stainless steel	
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST						
1/8"	3	0.23	0	13	13	10	80	22	13	SLP06-030E2	SLP06-030E2S1	
	3	0.23	0	13	13	-	130	22	13	SLP06-030E2E	SLP06-030E2S1E	
	3	0.23	0	13	13	10	120	22	13	SLP06-030E2V	SLP06-030E2S1V	
1/4"	3	0.23	0	13	13	10	80	22	13	SLP08-030E2	SLP08-030E2S1	
	3	0.23	0	13	13	-	130	22	13	SLP08-030E2E	SLP08-030E2S1E	
	3	0.23	0	13	13	10	120	22	13	SLP08-030E2V	SLP08-030E2S1V	
	10.5	1.47	0	10	10	10	80	22	13	SLP08-105E2	---	
	10.5	1.47	0	10	10	-	130	22	13	SLP08-105E2E	---	
	10.5	1.47	0	10	10	10	120	22	13	SLP08-105E2V	---	
3/8"	3	0.3	0	13	13	10	80	22	13	SLP10-030E2	SLP10-030E2S1	
	3	0.3	0	13	13	10	130	22	13	SLP10-030E2E	SLP10-030E2S1E	
	3	0.3	0	13	13	10	120	22	13	SLP10-030E2V	SLP10-030E2S1V	
	4	0.6	0	8	8	6	80	22	13	SLP10-040E2	SLP10-040E2S1	
	4	0.6	0	8	8	6	130	22	13	SLP10-040E2E	SLP10-040E2S1E	
	4	0.6	0	8	8	6	120	22	13	SLP10-040E2V	SLP10-040E2S1V	
	10.5	1.68	0	10	10	10	80	22	13	SLP10-105E2	---	
	10.5	1.68	0	10	10	-	130	22	13	SLP10-105E2E	---	
	10.5	1.68	0	10	10	10	120	22	13	SLP10-105E2V	---	
	13	4.5	0.5	16	16	13	80	22	13	SLP10-130E2	SLP10-130E2S1	66 x 48 x 112
	13	4.5	0.5	16	16	13	130	22	13	SLP10-130E2E	SLP10-130E2S1E	66 x 48 x 112
	13	4.5	0.5	16	16	13	120	22	13	SLP10-130E2V	SLP10-130E2S1V	66 x 48 x 112
1/2"	10.5	1.75	0	10	10	10	80	22	13	SLP15-105E2	---	
	10.5	1.75	0	10	10	-	130	22	13	SLP15-105E2E	---	
	10.5	1.75	0	10	10	10	120	22	13	SLP15-105E2V	---	
	13	4.5	0.5	16	16	13	80	22	13	SLP15-130E2	SLP15-130E2S1	66 x 48 x 112
	13	4.5	0.5	16	16	13	130	22	13	SLP15-130E2E	SLP15-130E2S1E	66 x 48 x 112
	13	4.5	0.5	16	16	13	120	22	13	SLP15-130E2V	SLP15-130E2S1V	66 x 48 x 112
3/4"	20	7.6	0.5	16	16	13	80	22	13	SLP20E2	SLP20E2S1	75 x 58 x 118
	20	7.6	0.5	16	16	13	130	22	13	SLP20E2E	SLP20E2S1E	75 x 58 x 118
	20	7.6	0.5	16	16	13	120	22	13	SLP20E2V	SLP20E2S1V	75 x 58 x 118
1"	25	12	0.5	16	16	13	80	22	13	SLP25E2	SLP25E2S1	96 x 70 x 131
	25	12	0.5	16	16	13	130	22	13	SLP25E2E	SLP25E2S1E	96 x 70 x 131
	25	12	0.5	16	16	13	120	22	13	SLP25E2V	SLP25E2S1V	96 x 70 x 131
1-1/4"	35	22	0.5	16	16	13	80	22	13	SLP32-350E2	---	131 x 96 x 146
	35	22	0.5	16	16	13	130	22	13	SLP32-350E2E	---	131 x 96 x 146
	35	22	0.5	16	16	13	120	22	13	SLP32-350E2V	---	131 x 96 x 146
1-1/2"	40	30	0.5	16	16	13	80	22	13	SLP40E2	SLP40E2S1	131 x 96 x 146
	40	30	0.5	16	16	13	130	22	13	SLP40E2E	SLP40E2S1E	131 x 96 x 146
	40	30	0.5	16	16	13	120	22	13	SLP40E2V	SLP40E2S1V	131 x 96 x 146
2"	50	48	0.5	16	16	13	80	22	13	SLP50E2	SLP50E2S1	165 x 120 x 167
	50	48	0.5	16	16	13	130	22	13	SLP50E2E	SLP50E2S1E	165 x 120 x 167
	50	48	0.5	16	16	13	120	22	13	SLP50E2V	SLP50E2S1V	165 x 120 x 167
Flange connection	25	12	0.5	16	16	13	80	22	13	-	SLPF25E2S1	134 x 110 x 160
	25	12	0.5	16	16	13	130	22	13	-	SLPF25E2S1E	134 x 110 x 160
	25	12	0.5	16	16	13	120	22	13	-	SLPF25E2S1V	134 x 110 x 160
Flange connection	35	22	0.5	16	16	13	80	22	13	-	SLPF32-350E2S1	160 x 135 x 175
	35	22	0.5	16	16	13	130	22	13	-	SLPF32-350E2S1E	160 x 135 x 175
	35	22	0.5	16	16	13	120	22	13	-	SLPF32-350E2S1V	160 x 135 x 175
Flange connection	40	30	0.5	16	16	13	80	22	13	-	SLPF40E2S1	160 x 145 x 180
	40	30	0.5	16	16	13	130	22	13	-	SLPF40E2S1E	160 x 145 x 180
	40	30	0.5	16	16	13	120	22	13	-	SLPF40E2S1V	160 x 145 x 180
Flange connection	50	48	0.5	16	16	13	80	22	13	-	SLPF50E2S1	200 x 160 x 207
	50	48	0.5	16	16	13	130	22	13	-	SLPF50E2S1E	200 x 160 x 207
	50	48	0.5	16	16	13	120	22	13	-	SLPF50E2S1V	200 x 160 x 207
Flange connection	65	52	0.5	12	12	8	80	33	20	-	SLPF65E2S1	250 x 185 x 250
	65	52	0.5	12	12	8	120	33	20	-	SLPF65E2S1E	250 x 185 x 250
	65	52	0.5	12	12	8	120	33	20	-	SLPF65E2S1V	250 x 185 x 250
Flange connection	80	80	0.5	12	12	8	80	33	20	-	SLPF80E2S1	270 x 202 x 262
	80	80	0.5	12	12	8	120	33	20	-	SLPF80E2S1E	270 x 202 x 262
	80	80	0.5	12	12	8	120	33	20	-	SLPF80E2S1V	270 x 202 x 262
Flange connection	100	128	0.5	12	12	8	80	33	20	-	SLPF100E2S1	342 x 222 x 287
	100	128	0.5	12	12	8	120	33	20	-	SLPF100E2S1E	342 x 222 x 287
	100	128	0.5	12	12	8	120	33	20	-	SLPF100E2S1V	342 x 222 x 287

2  
SLP

## SLP-H

2/2 Solenoid Valve ( N.O. )

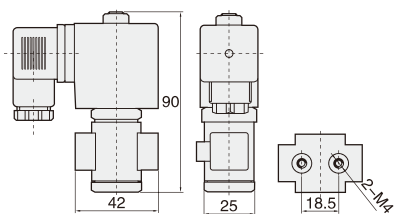


### Product Features

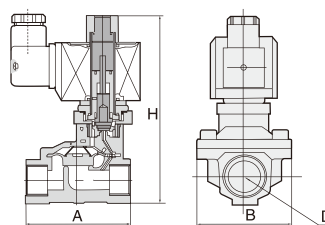
- \* Normal open, available body: brass, SS316
- \* Multiple seals are available for different medium
- \* Wide size range from 1/8" to 2" , with both thread and flange connection
- \* Diaphragm pilot solenoid valve, with lower working pressure
- \* To reduce the power consumption of 80% energy-saving

### Main Dimension

Φ1-Φ3mm 1/8" 1/4"



Large diameter



### Specifications

Port size (G)	Orifice (mm)	CV value	Pressure difference ( Bar )				Max. temperature (°C)	Power		Model		Main dimension Length x Width x Height AxBxH(mm)
			Min. pressure	Max. working pressure				VA	W	220VAC 50/60Hz		
				Air, Gas	Water, Hot water, Liquid	Light oil ≤20CST				Brass	Stainless steel	
1/8"	1	0.04	0	30	30	25	80	22	13	SLP06H-010E2	SLP06H-010E2S1	
	1	0.04	0	30	30	-	130	22	13	SLP06H-010E2E	SLP06H-010E2S1E	
	1	0.04	0	30	30	25	120	22	13	SLP06H-010E2V	SLP06H-010E2S1V	
	1.5	0.09	0	20	20	15	80	22	13	SLP06H-015E2	SLP06H-015E2S1	
	1.5	0.09	0	20	20	-	130	22	13	SLP06H-015E2E	SLP06H-015E2S1E	
	1.5	0.09	0	20	20	15	120	22	13	SLP06H-015E2V	SLP06H-015E2S1V	
	2.5	0.2	0	15	15	12	80	22	13	SLP06H-025E2	SLP06H-025E2S1	
	2.5	0.2	0	15	15	-	130	22	13	SLP06H-025E2E	SLP06H-025E2S1E	
	2.5	0.2	0	15	15	12	120	22	13	SLP06H-025E2V	SLP06H-025E2S1V	
	3	0.25	0	12	12	10	80	22	13	SLP06H-030E2	SLP06H-030E2S1	
1/4"	3	0.25	0	12	12	-	130	22	13	SLP06H-030E2E	SLP06H-030E2S1E	
	3	0.25	0	12	12	10	120	22	13	SLP06H-030E2V	SLP06H-030E2S1V	
	1	0.04	0	30	30	25	80	22	13	SLP08H-010E2	SLP08H-010E2S1	
	1	0.04	0	30	30	-	130	22	13	SLP08H-010E2E	SLP08H-010E2S1E	
	1	0.04	0	30	30	25	120	22	13	SLP08H-010E2V	SLP08H-010E2S1V	
	1.5	0.09	0	20	20	15	80	22	13	SLP08H-015E2	SLP08H-015E2S1	
	1.5	0.09	0	20	20	-	130	22	13	SLP08H-015E2E	SLP08H-015E2S1E	
	1.5	0.09	0	20	20	15	120	22	13	SLP08H-015E2V	SLP08H-015E2S1V	
	2.5	0.2	0	15	15	12	80	22	13	SLP08H-025E2	SLP08H-025E2S1	
	2.5	0.2	0	15	15	-	130	22	13	SLP08H-025E2E	SLP08H-025E2S1E	
1/2"	2.5	0.2	0	15	15	12	120	22	13	SLP08H-025E2V	SLP08H-025E2S1V	
	3	0.25	0	12	12	10	80	22	13	SLP08H-030E2	SLP08H-030E2S1	
	3	0.25	0	12	12	-	130	22	13	SLP08H-030E2E	SLP08H-030E2S1E	
	3	0.25	0	12	12	10	120	22	13	SLP08H-030E2V	SLP08H-030E2S1V	

# SLP-H Series 2/2 Solenoid Valve(Normal Open)



## Specifications

Port size (G)	Orifice (mm)	CV value	Pressure difference ( Bar )			Max. temperature (°C)	Power		Order code 220VAC 50/60Hz		Main dimension Length x Width x Height AxBxH(mm)	
			Min. pressure	Max. working pressure			VA AC 220	W DC 24V	Brass	Stainless steel		
				Air, Gas	Water, Hot water, Liquid							Light oil ≤20CST
3/8"	13	4.5	0.5	13	13	8	80	22	13	SLP10H-130E2	SLP10H-130E2S1	66 x 48 x 124
	13	4.5	0.5	13	13		120	22	13	SLP10H-130E2E	SLP10H-130E2S1E	66 x 48 x 124
	13	4.5	0.5	13	13	8	120	22	13	SLP10H-130E2V	SLP10H-130E2S1V	66 x 48 x 124
1/2"	13	4.5	0.5	13	13	8	80	22	13	SLP15H-130E2	SLP15H-130E2S1	66 x 48 x 124
	13	4.5	0.5	13	13		120	22	13	SLP15H-130E2E	SLP15H-130E2S1E	66 x 48 x 124
	13	4.5	0.5	13	13	8	120	22	13	SLP15H-130E2V	SLP15H-130E2S1V	66 x 48 x 124
3/4"	20	7.6	0.5	13	13	8	80	22	13	SLP20HE2	SLP20HE2S1	75 x 58 x 130
	20	7.6	0.5	13	13		120	22	13	SLP20HE2E	SLP20HE2S1E	75 x 58 x 130
	20	7.6	0.5	13	13	8	120	22	13	SLP20HE2V	SLP20HE2S1V	75 x 58 x 130
1"	25	12	0.5	13	13	8	80	22	13	SLP25HE2	SLP25HE2S1	96 x 70 x 143
	25	12	0.5	13	13		120	22	13	SLP25HE2E	SLP25HE2S1E	96 x 70 x 143
	25	12	0.5	13	13	8	120	22	13	SLP25HE2V	SLP25HE2S1V	96 x 70 x 143
1-1/4"	35	22	0.5	8	8	8	80	22	13	SLP32H-350E2	SLP32H-350E2S1	131 x 96 x 158
	35	22	0.5	8	8		120	22	13	SLP32H-350E2E	SLP32H-350E2S1E	131 x 96 x 158
	35	22	0.5	8	8	8	120	22	13	SLP32H-350E2V	SLP32H-350E2S1V	131 x 96 x 158
1-1/2"	40	30	0.5	8	8	8	80	22	13	SLP40HE2	SLP40HE2S1	131 x 96 x 158
	40	30	0.5	8	8		120	22	13	SLP40HE2E	SLP40HE2S1E	131 x 96 x 158
	40	30	0.5	8	8	8	120	22	13	SLP40HE2V	SLP40HE2S1V	131 x 96 x 158
2"	50	48	0.5	8	8	8	80	22	13	SLP50HE2	SLP50HE2S1	165 x 120 x 179
	50	48	0.5	8	8		120	22	13	SLP50HE2E	SLP50HE2S1E	165 x 120 x 179
	50	48	0.5	8	8	8	120	22	13	SLP50HE2V	SLP50HE2S1V	165 x 120 x 179
Flange connection	25	12	0.5	8	8	8	80	22	13	--	SLPF25HE2S1	134 x 110 x 172
	25	12	0.5	8	8		120	22	13	--	SLPF25HE2S1E	134 x 110 x 172
	25	12	0.5	8	8	8	120	22	13	--	SLPF25HE2S1V	134 x 110 x 172
Flange connection	35	22	0.5	8	8	8	80	22	13	--	SLPF32-350HE2S1	160 x 135 x 187
	35	22	0.5	8	8		120	22	13	--	SLPF32-350HE2S1E	160 x 135 x 187
	35	22	0.5	8	8	8	120	22	13	--	SLPF32-350HE2S1V	160 x 135 x 187
Flange connection	40	30	0.5	8	8	8	80	22	13	--	SLPF40HE2S1	160 x 145 x 192
	40	30	0.5	8	8		120	22	13	--	SLPF40HE2S1E	160 x 145 x 192
	40	30	0.5	8	8	8	120	22	13	--	SLPF40HE2S1V	160 x 145 x 192
Flange connection	50	48	0.5	8	8	8	80	22	13	--	SLPF50HE2S1	200 x 160 x 219
	50	48	0.5	8	8		120	22	13	--	SLPF50HE2S1E	200 x 160 x 219
	50	48	0.5	8	8	8	120	22	13	--	SLPF50HE2S1V	200 x 160 x 219

2

SLP

## 2V

### 2/2 Solenoid Valve ( N.C. )



#### Product Features

- \* Normal close, brass body
- \* Multiple seals are available for different medium
- \* Sizes range from 1/8" to 1"
- \* Direct acting/diaphragm pilot solenoid valve, with lower working pressure
- \* To reduce the power consumption of 80% energy-saving

#### How to Order?

Series No.	Orifice	Port Size	ID Code	Voltage	Seal Material	Thread Type
2V	025: 2.5mm	06: 1/8" 08: 1/4"	Blank: Standard type N: Low power type	E1: AC110V	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT
	130: 13mm	10: 3/8" 15: 1/2"		E2: AC220V E3: AC380V		
	250: 25mm	20: 3/4" 25: 1"		E4: DC24V E5: DC12V E6: AC36V E7: AC24V		

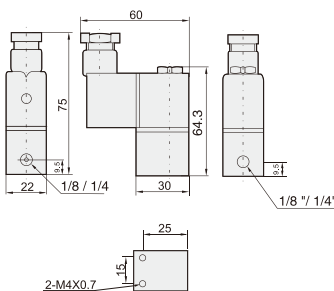
#### Order Example:

2V series solenoid valve, 13mm orifice, 1/2 port size, standard type, DC24V, EPDM seal, G thread, ERP code is: 2V130-15E4E

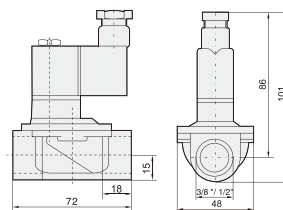
Note: Connection type is DIN connector.

#### Main Dimension

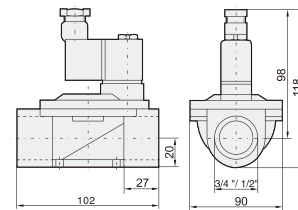
2V025



2V130



2V250



#### Specifications

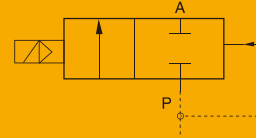
Model	2V025-06	2V025-08	2V130-10	2V130-15	2V250-20	2V250-25
Working medium	Air, Water, Steam					
Acting type	Direct acting type, N.C.			Pilot type, N.C.		
Orifice(mm)	2.5		13		25	
Cv value	0.23		6		23	
Port size	1/8"	1/4"	3/8"	1/2"	3/4"	1"
Fluid viscosity	20 CST以下					
Working pressure(Bar)	Air, Water, Oil : 0-8			Air, Water, Oil : 0.5-7		
Guaranteed pressure (Bar)	12			11		
Working temperature (°C)	-5 - 80					
Voltage range	-15 - 10%					
Protect class	IP65					
Power consumption	AC:7VA DC:6.5W					
Insulation	Class F					
Valve body material	Brass					
Seal material	NBR or VITON			NBR		
Shortest activate time	0.05s / second					

# SLG Series 2/2 Solenoid Valve(Normal Open)



## SLG

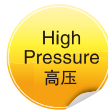
### 2/2 Solenoid Valve ( N.O. )



SLG5404-15F



SLG5404-15



#### Product Features

- \* Normal close, brass body
- \* High pressure, PTFE seal
- \* Piston pilot solenoid valve with high working pressure and temperature
- \* To reduce the power consumption of 80% energy-saving

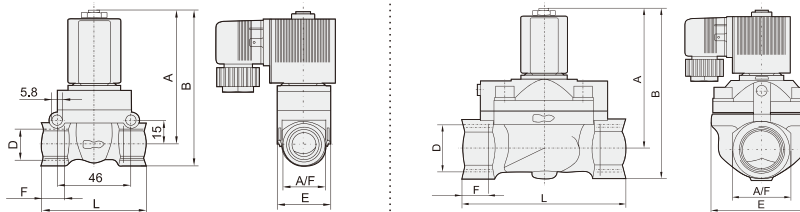
#### How to Order?

Series No.	Port Size	ID Code	Connection Mode	Coil Form	Thread Type	
SLG5404	15: 1/2" 20: 3/4" 25: 1"	Blank: Standard type N: Low power type	E1: AC110V E2: AC220V E3: AC380V E4: DC24V	E5: DC12V E6: AC36V E7: AC24V	Blank: DIN connector F: Flying leads	Blank: G P: PT T: NPT

#### Order Example:

SLG5404 Series solenoid valve, 1/2" port size, AC220V, DIN connector, G thread, ERP code is: SLG5404-15E2

#### Main Dimension



Model	Port size (G)	Orifice (mm)	A	B	F	E	L	A/F
SLG5404-15	12	1/2"	83	95.5	14	32	65	27
SLG5404-20	20	3/4"	99.5	119	16	60	92	40
SLG5404-25	25	1"	99.5	119	16	60	92	40

#### Specifications

Model	SLG5404-15E2	SLG5404-20E2	SLG5404-25E2
Working medium	Air, Water, Oil		
Acting type	Pilot type		
Orifice (mm)	12	20	25
Cv value	2	5	10
Port size	1/2"	3/4"	1"
Working pressure (Bar)	Air :1-50,Liquid:1-50	Air :1-40,Liquid:1-25	Air :1-40,Liquid:1-25
Guaranteed pressure(Bar)	75	60	
Voltage range	-15 ~ 10%		
Working temperature (°C)	-5 ~ 150		
Power consumption	AC:5.5VA, DC:9W		
Body material	Brass		
Seal material	PTFE		

Voltage: AC220V

2

SLG

## HUS

2/2 Solenoid Valve ( N.C. )



### How to Order?

Series No.	Port Size	Voltage	Orifice	Body Material
HUS	10: 3/8 " 15: 1/2 " 20: 3/4 " 25: 1 " 35: 1-1/4 " 40: 1-1/2 " 50: 2 "	E1: AC110V E2: AC220V E4: DC24V	15L=15.0mm 20L=20.0mm 25L=25.0mm 35L=35.0mm 40L=40.0mm 50L=50.0mm	S2: SS304 Stainless steel body
F: Flange connections				

#### Order Example:

HUS series solenoid valve, 2/2, AC110V, 3/8 port size, orifice 15mm, Stainless steel body, ERP code is HUS10E1-15LS2

### Specifications

Model	Port size	Orifice ( mm )	CV	The pressure difference			Max.fluid temperature ( °C )
				Min. pressure	Max. working pressure		
					Heat conduction oil	Steam	
HUS10E2-15LS2	3/8"	15	4.5	0.5	16	16	250
HUS15E2-15LS2	1/2"	15	4.5	0.5	16	16	250
HUS20E2-20LS2	3/4"	20	8	0.5	16	16	250
HUS25E2-25LS2	1"	25	12	0.5	16	16	250
HUS35E2-35LS2	1-1/4"	35	22	0.5	16	16	250
HUS40E2-35LS2	1-1/2"	35	22	0.5	16	16	250
HUS50E2-50LS2	2"	50	45	0.5	16	16	250
HUSFE2-25LS2	Flange	25	12	0.5	16	16	250
HUSFE2-32LS2	Flange	32	22	0.5	16	16	250
HUSFE2-40LS2	Flange	40	22	0.5	16	16	250
HUSFE2-50LS2	Flange	50	45	0.5	16	16	250



# UW Series 2/2 Solenoid Valve(Normal Close)



## UW

2/2 Solenoid Valve ( N.C. )



### How to Order?

Series No.	Port Size	Voltage	Connection Type	Cover Color	Seal Material	Thread Type
UW	10: 3/8 " 15: 1/2 " 20: 3/4 " 25: 1 " 35: 1-1/4 " 40: 1-1/2 " 50: 2 "	E1: AC110V E2: AC220V E4: DC24V E5: DC12V E7: AC24V	Blank: DIN connector	Blank: Black	Blank: NBR E: EPDM V: VITON	Blank: G P: PT T: NPT

#### Order Example:

UW series solenoid valve, Brass valve body, 1/2 port size, Normal close, AC220V, DIN connection, Black cover, G thread, ERP code is: UW15E2

### Specifications

Model	UW10	UW15	UW20	UW25	UW35	UW40	UW50
Orifice ( mm )	16	16	20	25	35	40	50
CV	4.8	4.8	7.6	12	24	29	48
Pressure range ( MPa )	0~0.8			0~0.7			
Acting type	Step pilot						
Working medium	Air, water, light oil						
Working temperature (°C)	-5~80°C ( No freezing )						
Power	AC:33VA DC: 20W			AC:70VA DC: 40W			

## US

### 2/2 Solenoid Valve ( N.C. )



#### How to Order?

Series No.	Port size	Voltage	Connection Mode	Seal material	Thread type
US Series	10: 3/8" 15: 1/2" 20: 3/4" 25: 1" 35: 1-1/4" 40: 1-1/2" 50: 2"	E1: AC110V E2: AC220V E3: AC380V E4: DC24V E5: DC12V E6: AC36V E7: AC24V	Blank: DIN Connector F: Flying leads	Blank: PTFE	Blank: G P: PT T: NPT

#### Order Example:

US series, 2 position, 2 port, PTFE, 3/8" port size, AC220V, ERP code is: US10E2

#### Specifications

Model	US10E2	US15E2	US20E2	US25E2	US35E2	US40E2	US50E2
Working Medium	Air, Water, Steam						
Acting Type	Pilot Type						
Type	Normal Close Type						
Orifice(mm)	17		22		30		50
Cv Value	5		12		20		48
Port Size	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Fluid Viscosity	Below 20 CST						
Working Pressure(Bar)	1~15						
Max. Pressure Resistance(Bar)	23						
Working Temperature(°C)	-5~180						
Voltage Range	+10%						
Valve Body Material	Brass						
Seal Material	PTFE						

# EMCJ Series Full Stainless Steel Series Angle Valve



## EMCJ

### Full Stainless Steel Series Angle Valve



#### Product Features

- \* Normal close/Normal open full stainless steel angle valve, available body: SS304, SS316
- \* Multiple seals are available for different medium
- \* Wide size range from 3/8" to 2"

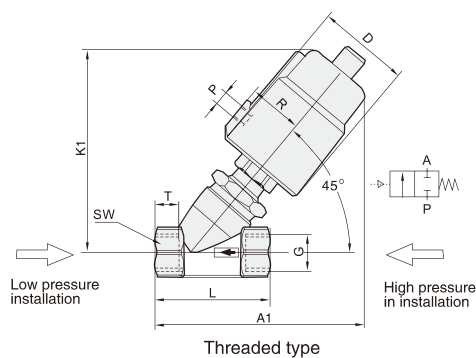
#### How to Order?

Series No.	Port Size	Actuator Size	Acting Type	Valve Body Material	ThreadType
EMCJ: Stainless Steel Series Angle Valve	10: 3/8 " 15: 1/2 " 20: 3/4 " 25: 1 " 32: 1-1/4 " 40: 1-1/2 " 50: 2 "	40: $\Phi$ 40mm 50: $\Phi$ 50mm 63: $\Phi$ 63mm 80: $\Phi$ 80mm 100: $\Phi$ 100mm	Blank: NC Single Acting H: NO Single Acting D: Double acting	S1: SS316 S2: SS304	Blank: G P: PT T: NPT

#### Order Example:

EMCJ series full stainless steel angle seat valve, 3/8 port size, 40mm actuator size, NC single acting, SS316 valve body, G thread, ERP code is: EMCJ-10-40S1

#### Main Dimension

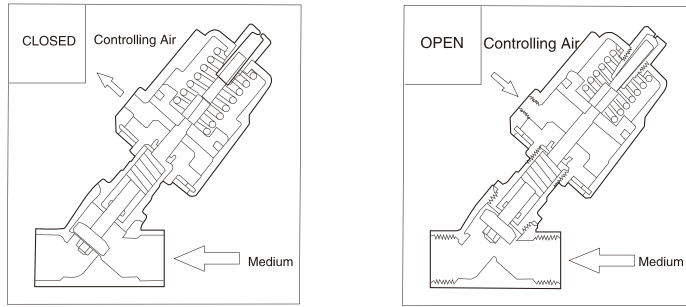


Size	Actuator (mm)	D (mm)	R (mm)	P	Thread					
					G	K1 (mm)	A1 (mm)	L (mm)	T (mm)	SW (mm)
DN10	40	50.5	27	1/8"	3/8"	115	120	68	12	22
	50	62	34	1/8"	3/8"	126	133	68	12	22
DN15	40	50.5	27	1/8"	1/2"	115	120	68	15	25
	50	62	34	1/8"	1/2"	126	133	68	15	25
DN20	50	62	34	1/8"	3/4"	131	137	75	16	31
	50	62	34	1/8"	1"	140	149	100	17	39
DN25	63	77	41.5	1/8"	1"	165	174	100	17	39
	63	77	41.5	1/8"	1-1/4"	175	188	116	21	50
DN32	80	98	52	1/4"	1-1/4"	185	203	116	21	50
	100	121	63	1/4"	1-1/4"	205	215	116	21	50
DN40	63	77	41.5	1/8"	1-1/2"	178	190	116	21	56
	80	98	52	1/4"	1-1/2"	187	204	116	21	56
DN50	100	121	63	1/4"	1-1/2"	208	216	116	21	56
	63	77	41.5	1/8"	2"	184	203	138	22	68
DN50	80	98	52	1/4"	2"	195	218	138	22	68
	100	121	63	1/4"	2"	215	230	138	22	68

#### Specifications

Model	EMCJ10-50	Model	EMCJ10-50
Port size	DN10-DN50	Temperature of medium(°C)	PTFE: -10 - +180
Thread	G3/8"-G2"	Ambient temperature(°C)	-10 - +60
Body material	CF8M	Viscosity(mm <sup>2</sup> /s)	Max600
Actuator material	CF8	Installation	any position
Seat seal	PTFE	Controlling medium	air/neutral gas
Stem seal	PTFE/FKM	Controlling pressure ( Bar )	3-10
Applicable medium	water,neutral gas or liquid,ethanol,oil,organic solvent,steam,alkalescent and weak acid solution		

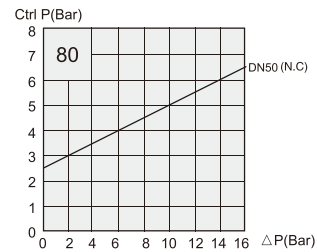
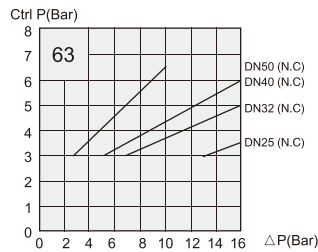
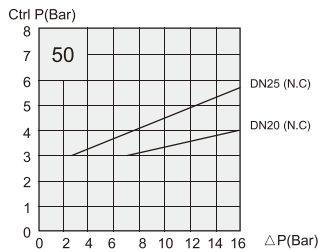
Flow direction: UP the seat, single acting normal close /open



## Specifications

Type	Post size	Orifice (mm)	Actuator (mm)	Kv valve	Working pressure (Bar)	Normal Close		Normal Open		Order code	
						Admitted differential pressure range (Bar)	Control pressure range (Bar)	Admitted differential pressure range (Bar)	Control pressure range (Bar)	N.C. Normal close single acting	N.O. Normal open single acting
DN10	G3/8"	13	40	4.7	16	0-16	≥ 4	-	-	EMCJ10-40	-
	G3/8"	13	50	4.7		0-16	≥ 3	0-16	3	EMCJ10-50	EMCJ10-50H
DN15	G1/2"	13	40	4.7		0-16	≥ 4	-	-	EMCJ15-40	-
	G1/2"	13	50	4.7		0-16	≥ 3	0-16	3	EMCJ15-50	EMCJ15-50H
DN20	G3/4"	18	50	9.5		0-16	3-4	0-16	3	EMCJ20-50	EMCJ20-50H
DN25	G1"	24	50	18.1		0-16	3-5.5	-	-	EMCJ25-50	-
	G1"	24	63	18.1		0-16	3-3.5	0-16	3.5	EMCJ25-63	EMCJ25-63H
DN32	G1-1/4"	31	63	23.1		0-16	3-5	0-14	3.9	EMCJ32-63	EMCJ32-63H
DN40	G1-1/2"	35	63	32.9		0-16	3-6	0-11	3.9	EMCJ40-63	EMCJ40-63H
DN50	G2"	45	63	52.8		0-10	3-6.5	0-6	3.9	EMCJ50-63	EMCJ50-63H
	G2"	45	80	52.8		0-16	3-6.6	0-12	4.5	EMCJ50-80	EMCJ50-80H

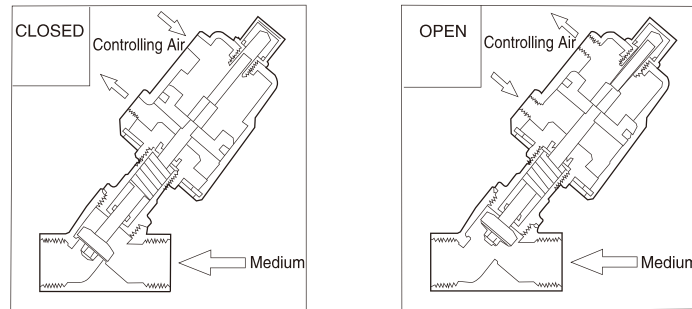
## Flow Chart



# EMCJ Series Full Stainless Steel Series Angle Valve



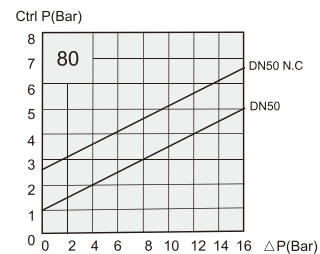
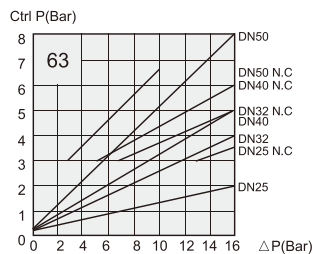
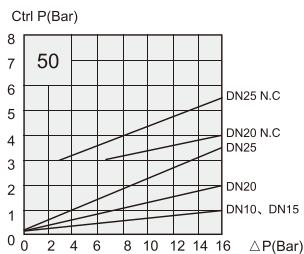
Flow direction: UP the seat, double acting normal close / open



## Specifications

Type	Port size	Orifice (mm)	Actuator (mm)	Kv valve	Working pressure 180°C max (Bar)	Admitted pressure difference (Bar)	Control pressure		Model	
							Double acting (N.C) (Bar)	Double acting free insallation (Bar)	Double acting (N.C)	Double acting free insantation
DN10	G3/8"	13	40	4.7	16	0-16	≥4	0-2	EMCJ10-40DC	EMCJ10-40D
DN10	G3/8"	13	50	4.7		0-16	≥3	0-1	EMCJ10-50DC	EMCJ10-50D
DN15	G1/2"	13	40	4.7		0-16	≥4	0-2	EMCJ15-40DC	EMCJ15-40D
DN15	G1/2"	13	50	4.7		0-16	≥3	0-1	EMCJ15-50DC	EMCJ15-50D
DN20	G3/4"	18	50	9.5		0-16	3-4	0-2	EMCJ20-50DC	EMCJ20-50D
DN25	G1"	24	50	18.1		0-16	3-5.5	0-3.5	EMCJ25-50DC	EMCJ25-50D
DN25	G1"	24	63	18.1		0-16	3-3.5	0-2	EMCJ25-63DC	EMCJ25-63D
DN32	G1-1/4"	31	63	23.1		0-16	3-5	0-4	EMCJ32-63DC	EMCJ32-63D
DN40	G1-1/2"	35	63	32.9		0-16	3-6	0-5	EMCJ40-63DC	EMCJ40-63D
DN50	G2"	45	63	52.8		0-10	3-6.5	0-5	EMCJ50-63DC	EMCJ50-63D
DN50	G2"	45	80	52.8	0-16	3-6.6	0-5	EMCJ50-80DC	EMCJ50-80D	

## Flow Chat



## EMCP

### Plastic Actuator Series Angle Valve



#### Product Features

- \* Normal close/Normal open plastic actuator angle valve, available body: SS304, SS316
- \* Multiple seals are available for different medium
- \* Wide size range from 3/8" to 2"
- \* Better cost performance

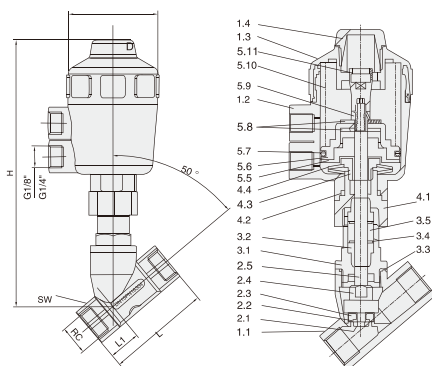
#### How to Order?

Series No.	Port Size	Actuator Size	Acting Type	Valve Body Material	Thread Type
EMCP: Plastic Actuator Angle Valve	15: 1/2" 20: 3/4" 25: 1" 32: 1-1/4" 40: 1-1/2" 50: 2"	50: $\phi$ 50mm 63: $\phi$ 63mm 80: $\phi$ 80mm	Blank: N.C. Single Acting H: N.O. Single Acting D: Double acting	S1: SS316 S2: SS304	Blank: G P: PT T: NPT

#### Order Example:

EMCP series Plastic Actuator Angle Valve, 3/8 port size, 40mm actuator size, NC single acting, SS316 valve body, G thread,  
ERP code is: EMCP-10-40S1

#### Main Dimension



Main Dimension(mm)							
DN	Port size	L	L1	SW	H	D	Actuator size
10	3/8"	55	17	21	170	54	50
15	1/2"	70	21	26.5	185	63	50
20	3/4"	76	23	32	190	63	50
25	1"	90	25	40	200	63	50
32	1-1/4"	116	32	50	240	81	63
40	1-1/2"	116	32	55.5	280	96	80
50	2"	138	40	68.5	295	96	80

List of parts		
1.1 Body	3.1 Screw connector	5.5 Piston
1.2 Cylinder	3.2 V sealing	5.6 Flange
1.3 Cylinder head	3.3 Seal ring	5.7 Seal ring
1.4 Ornament cover	3.4 Gasket	5.8 Gasket
2.1 Bolt	3.5 Spring	5.9 Hexagon nut
2.2 Orifice plate seal	4.1 Connecting nut	5.10 Spring
2.3 Seal disc	4.2 Seal ring	5.11 Position indicator
2.4 Disc	4.3 Lock nut	
2.5 Stem	4.4 Leaf spring	

#### Specifications

Model	EMCP10-50	Model	EMCP10-50
Port size	DN10-DN50	Temperature of medium	PTFE: -10° - 180° FPM: -10° - 100°
Thread	3/8" - 1/2"	Viscosity	max 600mm <sup>2</sup> /s
Body material	Stainless steel SS316/SS304	Installation	any position
Actuator material	Engineering plastic	Controlling medium	air/neutral gas
Seat seal	PTFE/FPM	Controlling pressure ( Bar )	3-8
Stem seal	PTFE/FPM	Working Pressure(Bar)	0-16
Piston seal	FPM/NBR		
Applicable medium	water, neutral gas or liquid, ethanol, oil, organic solvent, steam,		

## Connector



### How to Order?

Series No.	Power type	Voltage	Cover Color	Logo	LED Lamp	Protective Device
DA: DIN43650 A type(ISO4400) DB: B type(Industrial ) DC: C type(Industrial ) DBK: B Type(water-proof industrial) DBM: B Type(M8 connector)	A: AC D: DC Not available for DBK/DBM	1: 12V-48V 2: 110V-220V 3: 380V	Blank: Brown translucent J: Colorless transparent B: Black non-transparent <small>Note:DBK/DBM is Black non-transparent only</small>	Blank: Without "EMC" logo E: With "EMC" logo <small>Note: *Available for customer's logo, *DBM is not available for EMC logo.</small>	Blank: Without LED lamp L: With LED lamp <small>Note: DC current is with colorless and transparent lamp, with red light when power on. If wrong wiring with green light. AC current is with red lamp and with red light if be power on.</small>	Blank: None R: Varistor D: Diode
<small>Note: All include rubber seal.</small>		<small>Note: *Only applicable to LED lamp *Only applicable to DA type *DBM is applicable to 12V-48V only</small>				

### Order Example:

Industrial B type, AC220V, Brown translucent cover, with "EMC" logo and LED lamp, with Piezoresistor, the model No. is: DB-A2ELR

### Main Dimension

DA	DB	DBK	DBM	DC
43650A Connector	43650B Connector		43650C Connector	

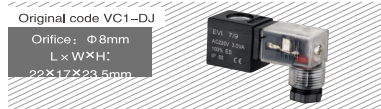
## Coil



### How to Order?

Series No.	Coil Type	Connection Mode	Suitable Series	Voltage	Cover color
X: Coil	Blank: standard coil A: Amisco coil H: Thermosetting Coil	D: DIN coil+ connector C: DIN coil F: Flying leads coil	V1: 1 series directional valve V2: 2/3/4 series directional valve SLP: SLP series process valve ZS: ZS series process valve .....	E1: AC110V E6: AC36V E2: AC220V E7: AC24V E3: AC380V E8: DC110V E4: DC24V E9: DC48V E5: DC12V E10: DC36V	Blank: Brown translucent J: Colorless and translucent B: Black translucent
RV valve: DIN coil is thermosetting coil Flying leads coil is standard coil					

Note: Pls check following attachment for connectors and coils. Other types will be non-standard.



<b>Coil code ( with connector )</b>	<b>Connector code</b>
X ( A ) D-V1-E1J	DC-A2JEL
X ( A ) D-V1-E2J	DC-A2JELR
X ( A ) D-V1-E3J	DC-A3JEL
X ( A ) D-V1-E4J	DC-D1JEL
X ( A ) D-V1-E5J	DC-D1JELR
X ( A ) D-V1-E6J	DC-A1JEL
X ( A ) D-V1-E7J	DC-A1JELR
X ( A ) D-V1-E8J	DC-D2JEL
X ( A ) D-V1-E9J	DC-D1JEL
X ( A ) D-V1-E10J	DC-D1JEL



<b>Coil code ( with connector )</b>	<b>Connector code</b>
X ( A ) D-V2-E1J	DB-A2JELR
X ( A ) D-V2-E2J	DB-A2JELR
X ( A ) D-V2-E3J	DB-A3JELR
X ( A ) D-V2-E4J	DB-D1JELR
X ( A ) D-V2-E5J	DB-D1JELR
X ( A ) D-V2-E6J	DB-A1JELR
X ( A ) D-V2-E7J	DB-A1JELR
X ( A ) D-V2-E8J	DB-D2JELR
X ( A ) D-V2-E9J	DB-D1JELR
X ( A ) D-V2-E10J	DB-D1JELR



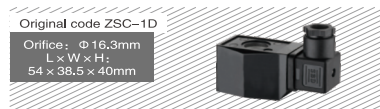
<b>Coil code ( with connector )</b>	<b>Connector code</b>
XD-SLG5404D-E1	DA-A2B
XD-SLG5404D-E2	DA-A2B
XD-SLG5404D-E3	DA-A3B
XD-SLG5404D-E4	DA-D1B
XD-SLG5404D-E5	DA-D1B
XD-SLG5404D-E6	DA-A1B
XD-SLG5404D-E7	DA-A1B
XD-SLG5404D-E8	DA-D2B
XD-SLG5404D-E9	DA-D1B
XD-SLG5404D-E10	DA-D1B



<b>Coil code ( with connector )</b>	<b>Connector code</b>
XD-SLP-E1	DA-A2B
XD-SLP-E2	DA-A2B
XD-SLP-E3	DA-A3B
XD-SLP-E4	DA-D1B
XD-SLP-E5	DA-D1B
XD-SLP-E6	DA-A1B
XD-SLP-E7	DA-A1B
XD-SLP-E8	DA-D2B
XD-SLP-E9	DA-D1B
XD-SLP-E10	DA-D1B



<b>Coil code ( Flying leads )</b>
XF-2P-E1
XF-2P-E2
XF-2P-E3
XF-2P-E4
XF-2P-E5
XF-2P-E6
XF-2P-E7
XF-2P-E8
XF-2P-E9
XF-2P-E10



<b>Coil code ( with connector )</b>	<b>Connector code</b>
XD-ZS1-E1	DA-A2B
XD-ZS1-E2	DA-A2B
XD-ZS1-E3	DA-A3B
XD-ZS1-E4	DA-D1B
XD-ZS1-E5	DA-D1B
XD-ZS1-E6	DA-A1B
XD-ZS1-E7	DA-A1B
XD-ZS1-E8	DA-D2B
XD-ZS1-E9	DA-D1B
XD-ZS1-E10	DA-D1B



<b>Coil code ( with connector )</b>	<b>Connector code</b>
XD-ZS2-E1	DA-A2B
XD-ZS2-E2	DA-A2B
XD-ZS2-E3	DA-A3B
XD-ZS2-E4	DA-D1B
XD-ZS2-E5	DA-D1B
XD-ZS2-E6	DA-A1B
XD-ZS2-E7	DA-A1B
XD-ZS2-E8	DA-D2B
XD-ZS2-E9	DA-D1B
XD-ZS2-E10	DA-D1B



