PNEUMATRON

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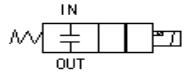
2/2 Industrial Solenoid Valve

P2W22 & PQ22 SS304 Series, Diaphragm Direct Lifting (N.C)

PLEASE TAKE NOTE OF: Special Notes & Installation Instructions on last page

Charactaristics:
1. Direct lifting diaphragm construction;
2. For low pressure system use
3. High frequency of DIN plug coil



Sizes 1/2", 3/4" & 1"

Sizes 11/4", 11/2" & 2"

Medium: Air Gas, Water & Light oil ≤ 20 CST
Temperature: VITON: -10°C to 130°C
Pressure: Water & air: 0 to 10 Bar (See table below)
Light oil ≤ 20CST: 0 to 7 Bar (AC) 4 Bar (DC)
Port Size (BSP): 1/2", 3/4", 1", 11/4", 11/2", 2"
Port Thread: BSP
Orifice: 15mm, 20mm, 25mm, 32mm, 40mm, 50mm
Coil voltages: 220VAC, 110VAC, 24VDC, 12VDC, 24VAC
Coils: IP65, 100%ED

Material:
Body: SS304 or Brass
Seal: VITON
Armature Tube: Stainless Steel 304
Plunger: Stainless Steel 430F
Stop: SS430F
Springs: SS304
Shading Rings: SS304

P2W22 & PQ22 SS304 Series Normally Closed, with Coil

Port Size	Orifice (mm)	KV	Min Pressure	Max Pressure AC(20VA)	Max Pressure DC(20W)	Seals Material	Body Material	Valve No:	Coil
1/2"	15	4.15	0 Bar	10Bar	10Bar	VITON	SS304	P2W22SH15S04V	C14/15
3/4"	20	6.57	0 Bar	10Bar	10Bar			P2W22SH20S06V	C14/15
1"	25	10.38	0 Bar	10Bar	10Bar			P2W22SH25S10V	C14/15
				AC(57VA)	DC(45W)				
11/4"	32	20.76	0 Bar	10Bar	6Bar			PQ22SH32S12V	C16
11/2"	40	25.09	0 Bar	10Bar	6Bar			PQ22SH40S14V	C16
2"	50	41.52	0 Bar	10Bar	6Bar			PQ22SH50S20V	C16

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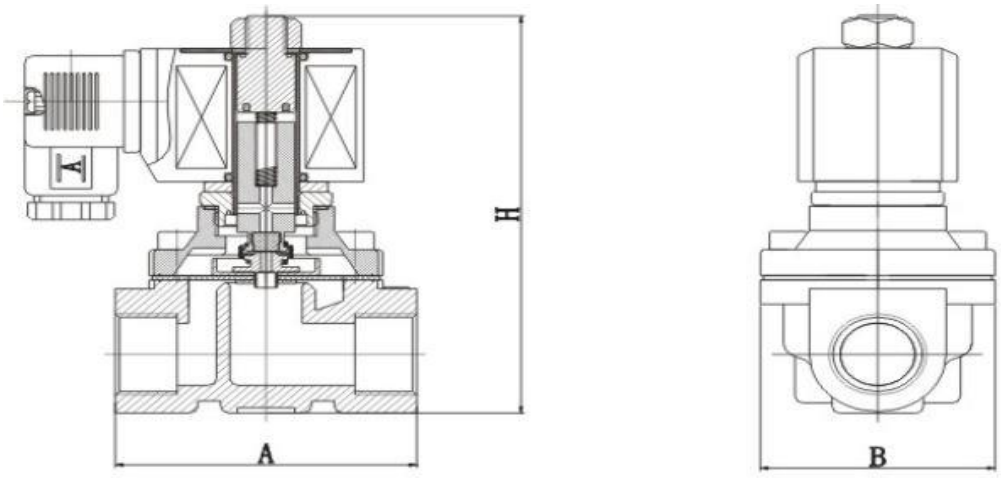
Coil Specifications

Coil Type	Voltage	Inrush (50HZ VA)	Holding (50HZ VA)	Watt (DC)
C14	AC220V	82	20	
C15		55	24	
C16		175	57	
C14	AC110V	82	28	
C15		55	24	
C16		110	45	
C14	DC24V			20
C15				28
C16				40
C14	DC12V			20
C15				28.5
C16				

BODY DIMENSION CODE(Size in mm)			Valve Body
A	B	H	
69	57	106	P2W22SH15S04V
73	57	114	P2W22SH20S06V
99	77	121	P2W22SH25S10V
112	86.5	150	PQ22SH32S12V
123	94	160	PQ22SH40S14V
168	123	183	PQ22SH50S20V



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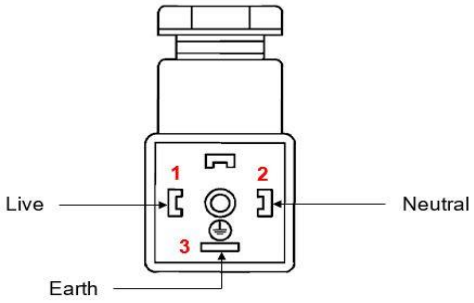
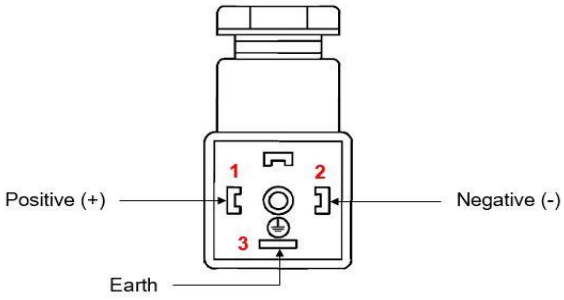
DIN Plug Wiring Connections

Wiring Connections AC



Wiring Connections DC



SPECIAL NOTES FOR P2W22 & PQ22 SS304 VALVE SERIES

a. These valve do operate from zero pressure due to a large electrical coil that is fitted onto the valve (See wattage of coils in table on first page). These large coils are capable of pulling the diaphragm up once energised without any assistance or pressure. Due to this the valves are suitable to be used on gravity feed applications as well as on the suction side of a pump.

b. These large coils need to be protected against overheating by the following methods:

1. No installation in direct sunlight. If the solenoid valve is installed in direct sunlight the coil and valve must be shaded - a shading steel plate can be mounted above the valve to protect it from direct sunlight. DO NOT box these valve to block direct sunlight, there will be no ventillation to keep the coil cool unless you mount a fan.

2. Coil cannot be activated for extended periods of time in certain applications. Please consult the flow rate specifications for these flow rates (your pump specified flow rate has to exceed the valve flow rate by 50%, if the pump is small and the valve is large you can expect the coil to overheat and eventually burn out).

3. An alternative solution would be to use electric ball valve series.

4. Please make sure of required wattage for C16 & C14/15 coils before purchase.

VALVE INSTALLATION INSTRUCTIONS

1. These valves should be installed horisontally with the coil on top for the best and most reliable operation, any other installation method is done at own risk.

2. Insure that the valve is installed correctly as per the flow direction indicated by and arrow on the valve, in/out wording or as per instruction in the data sheet. Incorrect installation will result in malfunction of the valve and possible damage.

3. Check the valve label for pressure range requirements. Any valve should not be used for higher pressure than what they are rated for.

4. The valve label will indicate the valve body material and the seal material. Never apply incompatible fluids or gasses with the body and seal material.

5. The seal material indicates the temperature range that can be used with the valve. Going beyond the temperature range will cause the valve to malfuntion.

6. All valves should be cleaned from time to time. Generally, if the voltage to the coil is correct, sluggish valve operation, excessive noise or leakage will indicate that cleaning is required.