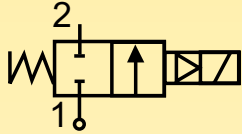


Solenoid Valves for Automation

2/2 way - Normally Closed - Diaphragm pilot operated

Fittings: G = 3/8" - 1"

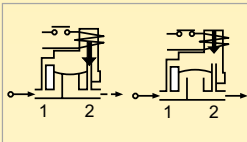
Series **168.1**



N.C.

Normally closed

Coil energised - open
Coil de-energised - closed



General description:

PARKER series **168.1** solenoid valves are diaphragm pilot operated and therefore require a minimum differential pressure to operate.

They are used for **air** applications, even with high operating frequencies. The diaphragm is made of plastic with a fabric reinforcement.

Series **168.1** valves are **normally closed**.

On request and for large orders, all the models can be supplied with manual control (MC).

Temperatures:

The working temperature for media is:

maximum	+90°C
minimum	-10°C

The maximum ambient temperature is:

- with class "F" coils **+50°C**
- with class "H" coils **+80°C**

Application:

Series **168.1** solenoid valves are ideal for air applications where high flow rates with high operating frequencies are required.

Some typical application examples are:

- Air compressors;
- Dust removal systems;
- Systems of distribution by compressed air;
- Pneumatic mail;
- Suction systems.

Coils:

For series **168.1** valves class "F" coils (**155°C**) are available encapsulated in thermoplastic containing 30% glass fiber (types: ZB, YB).

Class "H" coils (**180°C**) are also available encapsulated in thermoplastic containing 40% glass fiber (type: ZH).

All the coils are for continuous service, 100% E.D.

The rated voltage tolerance is:

- ±10% for A.C.** power supply and
- +10% -5% for D.C.**

The "Z" and "Y" coils can be used on a.c. with frequency of 50/60Hz (dualfrequency).

The "Z" coils have Faston terminals for **DIN 43650A** connectors with protection to **IP65**.

The "Y" coil has terminals with 2 x 1,000 mm cables with protection to **IP67**.

Installation:

The valves can be mounted in any position without jeopardising their operation. It is however advisable to install them with the coil in a vertical position above the body.

Approvals:



- For the coils:
ZB 09 115V/50-60Hz, 220-230V/50-60Hz, 240V/50-60Hz
ZH 09 24V/50-60Hz
ZH 12 12V DC, 24V DC
YB 09 220-230V/50-60Hz



- For the coil:
ZB 09 220-230V/50-60Hz, 240V/50-60Hz
YB 09 220-230V/50-60Hz



- UL Recognized Comp. coils mark:
ZB 09 24V/60Hz, 110-120V/60Hz, 208-240V/60Hz
YB 09 24V/60Hz, 110-120V/60Hz, 208-240V/60Hz

Series **168.1**

MATERIALS

- Valve body: CW617N UNI EN 12165:98 brass stamping
- Seals: NBR (Buna N)
- Enclosing tube: AISI 304 stainless steel
- Plunger: AISI 430F stainless steel
- Spring: AISI 302 stainless steel
- Shading ring: Copper

ELECTRICAL FEATURES

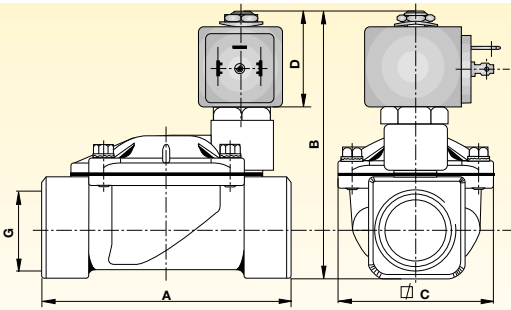
Coil type []		Power [W]		Insulat. class
A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
ZB 09	ZB 12	9	12	F
YB 09	YB 12	9	12	F
ZH 09	ZH 12	9	12	H
ZH 14	ZH 16	14	16	H

SPECIFICATION

Fittings Ø G	Valve type	Nominal orifice Ø	Flow coefficient Kv	Minimum pressure	Max differential pressure (M.O.P.D.)	Coil type	Weight	Notes	
["]	[]	[mm]	[m³/h]	[bar]	in A.C.(~) [bar]	in D.C.(=) [bar]	[Kg]	[]	
3/8	168.1 I	13	2,0	0,5	16	16	Z - Y	0,550	1
1/2	168.1 A	13	2,5	0,5	16	16	Z - Y	0,580	1
3/4	168.1 C	20	7,0	0,5	16	16	Z - Y	1,020	1
1	168.1 D	25	8,0	0,5	16	16	Z - Y	1,080	1

Note: 1) NP (nominal pressure): 25 bar.

DIMENSIONS



Fittings Ø G	A	B	C	D
["]	[mm]	[mm]	[mm]	[mm]
3/8	69,0	93,5	40,0	37,5
1/2	72,0	95,5	40,0	37,5
3/4	100,0	101,0	65,0	37,5
1	104,0	106,5	65,0	37,5

ORDER CODE

VALVE BODY	SERIES	FITTINGS	SEAL	[V] [Hz] / d.c.						
				Coil type	24 V 50/60 Hz	115V 50/60 Hz	220-230 V 50/60 Hz	240 V 50/60 Hz	12 V d.c.	24 V d.c.
PM	168.1	I 3/8" A 1/2" C 3/4" D 1"	N NBR (Buna N)	ZB 09	●	●	●	●		
				ZH 09	●					
				ZB 12					●	●
				ZH 12					●	●
				YB 09	●	●	●			
				YB 12					●	●
				ZH 14	●	●	●			
				ZH 16					●	●
				Coil type	24 V / 60 Hz	110-120 V / 60 Hz	208-240 V / 60 Hz			
				ZB 09 UL	●	●	●			
				YB 09 UL	●	●	●			

Note: Valve supplied with body (PM) and coil separate. Connector to be ordered separately.