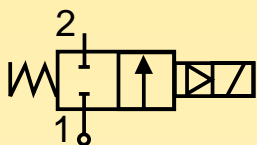


Solenoid Valves for Automation

2/2 way - Normally Closed - Diaphragm pilot operated

Fittings: G = 3/8" - 1"

Series **168.1**

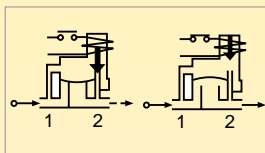


N.C.

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:



- Coil certification:
- ZB 09** 24V/50-60Hz, 115V/50-60Hz
220-230V/50-60Hz, 240V/50-60Hz
- ZB 12** 12V DC, 24V DC
- YB 09** 220-230V/50-60Hz



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



- UL Recognized Comp. Mark for the coil:
- 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: OT58 UNI 5705 brass stamping
- Seals: NBR (Buna N)
- Enclosing tube: AISI 304 stainless steel
- Plunger: AISI 430 F stainless steel
- Spring: AISI 302 stainless steel
- Shading ring: Copper

ELECTRICAL FEATURES

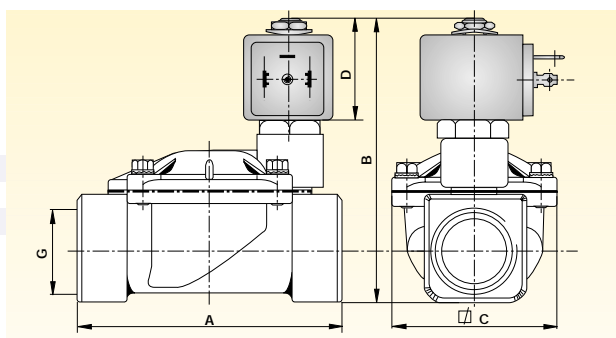
Coil type []		Power [W]		Insulat. class
AC.(~)	D.C.(=)	AC.(~)	D.C.(=)	
ZB 09	ZB 12	9	12	F
YB 09	YB 12	9	12	F
ZH 14	ZH 16	14	16	H

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
					in A.C.(~)	in D.C.(=)			
["]	[]	[mm]	[m³/h]	[bar]	[bar]	[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

Coil type	[V]			[Hz] / d.c.		
	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.
ZB 09	•	•	•	•		
ZB 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	•	•	•

PM	168.1	N
VALVE BODY	FITTINGS	SEAL
	I 3/8"	N NBR (Buna N)
	A 1/2"	
	C 3/4"	
	D 1"	
SERIES		

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