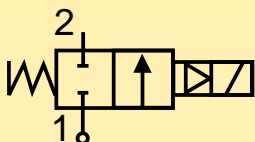


# Solenoid Valves for Automation

2/2 way - Normally Closed - Diaphragm assisted lift

Fittings: G = 3/8" - 1"

Series **123**

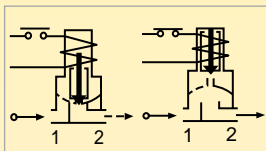


N.C.

Normally closed

Coil energised - open

Coil de-energised - closed



## General description:

PARKER series 123 solenoid valves are diaphragm assisted lift and do not require a minimum differential pressure to operate. They are used for general applications with media such as: **water, air, light oils (2°E) and inert gases**, provided they are compatible with the construction materials used.

Series 123 valves are **normally closed**.

## Temperatures:

The working temperature for media is:

maximum	+140°C
minimum	-10°C

The maximum ambient temperature is:

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

## Application:

Series 123 solenoid valves are ideal for automatic control of media for a wide range of uses which require zero or very low differential pressures.

Some examples of applications are:

- thermohydraulic systems;
- industrial dishwashers;
- hydrocleaners;
- food industry equipment;
- instruments;
- metal smelting plants;
- polyurethane systems;
- closed circuits;
- environmentally-friendly systems;
- suction pad manipulators.

In vacuum applications series 123 valves can be used in a range from **10<sup>-3</sup> to 10<sup>+3</sup> torr**.

They may be used with gases with pressures over **2,000 mm of water column**.



## Coils:

For series 123 valves class "F" coils (**155°C**) are available, encapsulated in thermoplastic containing 30% glass fiber (types: ZB, YB, JB).

For models I and A, 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", "Y", "J" coils can be used on a.c. with frequency 50/60 Hz (dual frequency).

The "Z" and "J" 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
- JB 14** 220-230V/50-60Hz
- JB 16** 24V-DC



- For the coils:

- ZB 09** 220-230V/50-60Hz, 240V/50-60Hz
- YB 09** 220-230V/50-60Hz



- Models VE 123 I and 123 A, are UL-approved for

- ZB 09** coil, voltages: 24V/60Hz, 110-120V/60Hz, 208-240V/60Hz

Series **123**

MATERIALS

- Valve body: OT58 UNI 5705 brass stamping
- Seals: Viton
- Enclosing tube: AISI 304 stainless steel
- Plunger: AISI 430 F stainless steel
- Spring: AISI 302 stainless steel
- Shading ring: Copper

ELECTRICAL FEATURES

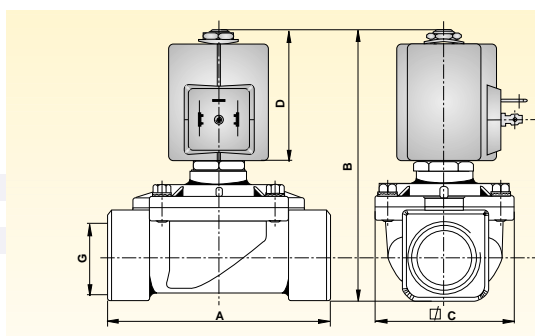
Coil type [ ]		Power [ W ]		Insulat. class
A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
ZB 09	ZB 12	9	12	F
YB 09	YB 12	9	12	F
ZH 14	ZH 16	14	16	H
JB 14	JB 16	14	16	F

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.(~) [bar]	in D.C.(=) [bar]			
[ " ]	[ ]	[mm]	[m³/h]	[bar]			[ ]	[Kg]	[ ]
3/8	123 I	13	2,40	0	5	1	Z - Y	0,510	1
1/2	123 A	13	2,40	0	5	1	Z - Y	0,540	1
3/4	123 C	20	6,00	0	3	1	J	1,230	1
1	123 D	25	7,00	0	3	1	J	1,300	1

Note: 1) NP (Nominal pressure): 16 bar.

DIMENSIONS



Fittings Ø G	A	B	C	D
[ " ]	[mm]	[mm]	[mm]	[mm]
3/8	69	83	40	37,5
1/2	72	85	40	37,5
3/4	100	120	65	59
1	104	125	65	59

ORDER CODE

PM	123	V	[V]	[Hz] / d.c.					
VALVE BODY	FITTINGS	SEAL	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.
	I 3/8"	V Viton	ZB 09	•	•	•	•		
	A 1/2"		ZB 12					•	•
	C 3/4"		YB 09	•	•	•			
	D 1"		YB 12					•	•
SERIES			ZH 14	•	•	•			
			ZH 16						•
			JB 14	•	•	•			
			JB 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.