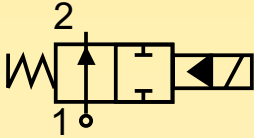


Solenoid Valves for Automation

2/2 way - Normally Open - Diaphragm pilot operated

Fittings: G = 3/8" - 3"

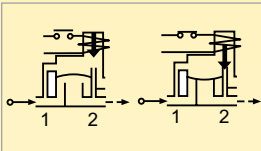
Series **143**



N.O.

Normally open

Coil energised - closed
Coil de-energised - open



General description:

PARKER series 143 solenoid valves are diaphragm pilot operated and require a minimum differential pressure to operate. They are used for general applications with high flow rates and media such as **water, light oils (2°E) and others**, provided they are compatible with the construction materials used.

Series 143 valves are **normally open**.

Temperatures:

The working temperature for media is:
maximum **+90°C**
minimum **-10°C**

with NBR seals (Buna N).

On request seals in Viton are available for fittings \leq G 1" and maximum working temperature **+140°C**.

The maximum ambient temperature is;

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

Application:

Series 143 solenoid valves are ideal for the automatic control of media in a wide range of applications such as:

- Thermohydraulic systems;
- Air compressors;
- Washing plants;
- Hydrocleaners.

For air and inert gases they can be used for low operating frequencies.

Coils:

For series 143 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** connector 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 14 15V/50-60Hz, 220-230V/50-60Hz
ZH 16 12V DC, 24V DC
YB 14 220-230V/50-60Hz
ZH 14 24V/50-60Hz



- For the coil:
ZB 14 220-230V/50-60Hz



Series **143**

MATERIALS

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

ELECTRICAL FEATURES

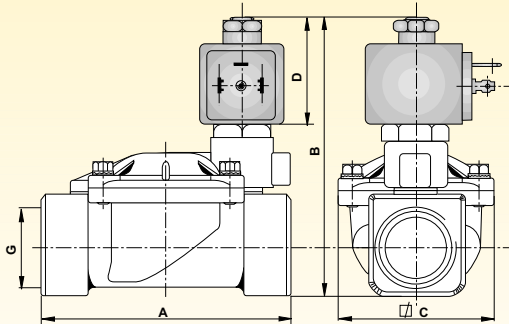
Coil type []		Power [W]		Insulat. class
A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
ZB 14	ZB 16	14	16	F
YB 14	YB 16	14	16	F
ZH 14	ZH 16	14	16	H

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.(~) [bar]	in D.C.(=) [bar]			
["]	[]	[mm]	[m³/h]	[bar]			[]	[Kg]	[]
3/8	143 I	13	3,00	0,1	20	20	Z - Y	0,560	1
1/2	143 A	13	3,00	0,1	20	20	Z - Y	0,590	1
3/4	143 C	20	8,40	0,1	20	20	Z - Y	1,050	1
1	143 D	25	9,60	0,1	20	20	Z - Y	1,110	1
1 1/4	143.2 E	35	25,20	0,1	10	10	Z - Y	3,120	1
1 1/2	143.2 F	40	30,00	0,1	10	10	Z - Y	2,870	1
2	143 G	50	37,20	0,1	10	10	Z - Y	4,260	1
2 1/2	143 L	65	66,00	0,2	10	10	Z - Y	13,64	1
3	143 M	75	80,00	0,2	10	10	Z - Y	11,75	1

Note: 1) NP (nominal pressure): 25 bar (from 1 1/4" to 2" PN 16 bar).

DIMENSIONS



Fittings Ø G	A	B	C	D
["]	[mm]	[mm]	[mm]	[mm]
3/8	69	92,5	40	43
1/2	72	94,5	40	43
3/4	100	100,0	65	43
1	104	105,5	65	43
1 1/4	145	127,0	102	43
1 1/2	145	127,0	102	43
2	173	141,0	118	43
2 1/2	245	188,0	184	43
3	250	188,0	184	43

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 14	●	●	●	●		
ZB 16					●	●
YB 14	●		●			
YB 16					●	●
ZH 14	●	●	●			
ZH 16					●	●

PM	143		
VALVE BODY	FITTINGS		SEAL
	I 3/8"		N NBR (Buna N)
	A 1/2"		*V Viton
	C 3/4"		
	D 1"		
	• 2 E 1 1/4"		
	• 2 F 1 1/2"		
	G 2"		
	L 2 1/2"		
	M 3"		
SERIES			

Note: Valve supplied with body (PM) and coil separate. Connector to be ordered separately. * Optional Viton for fitting up to 1".