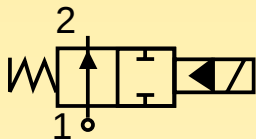


Solenoid Valves for Automation

2/2 way - Normally Open - Diaphragm pilot operated

Fittings: G = 3/8" - 3"

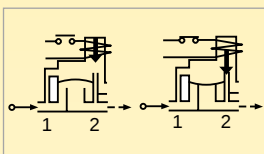
Series **143**



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		ELECTRICAL FEATURES	Coil type []		Power [W]		Insulat. class
			A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
	• 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					
			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
	["]	[]	[mm]	[m³/h]	[bar]	in A.C.(~) [bar]	in D.C.(=) [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	PM	143			[V] [Hz] / d.c.	
	VALVE BODY	FITTINGS			Coil type	
		I 3/8"			ZB 14	•
		A 1/2"			ZB 16	•
		C 3/4"			YB 14	•
		D 1"			YB 16	•
		• 2 E 1 1/4"			ZH 14	•
		• 2 F 1 1/2"			ZH 16	•
		G 2"				
		L 2 1/2"				
		M 3"				
	SERIES	SEAL				
		N NBR (Buna N)				
		*V Viton				

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