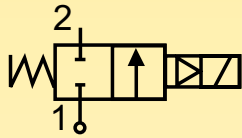


# Solenoid valves for steam and high temperatures

2/2 way - Normally Closed - Diaphragm pilot operated

Fittings: G = 3/8" - 2"

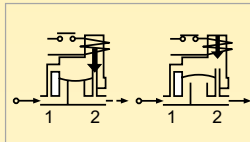
Series **133 ... H**



**N.C.**

**Normally closed**

Coil energised - open  
Coil de-energised - closed



## General description:

PARKER series 133H solenoid valves are diaphragm pilot operated and require a minimum differential pressure to operate. They are used for **steam and superheated water** where high flow rates are required. Series 133H valves are **normally closed**.

## Temperatures:

The working temperature for media is:  
 maximum **+140°C**  
 minimum **-10°C**  
 The maximum ambient temperature is:  
 • with coils in class "F" **+50°C**  
 • with coils in class "H" **+80°C**

## Application:

Series 133 H solenoid valves are ideal for the automatic control of high temperature water and steam.

Some typical application examples:

- Steam generators;
- Sterilisation systems;
- Industrial washing machines;
- Washing systems;
- Furnaces;
- Boiling systems;
- Autoclaves.

## Coils:

For series 133H valves class "F" coils (**155°C**) are available encapsulated in thermoplastic containing 30% glass fiber (types ZB, YB) and class "H" coils (**180°C**) are available encapsulated in thermoplastic containing 40% of glass fiber (ZH type).

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 a frequency of 50/60 Hz (dual frequency).

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 coils:  
**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 **133 ... H**

**MATERIALS**

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

**ELECTRICAL FEATURES**

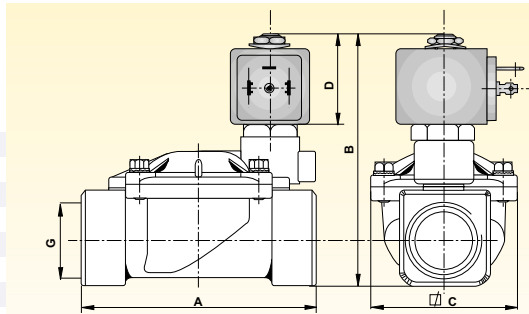
Coil type [ ]		Power [ W ]		Insulat. class
A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
ZB 09	ZB 12	9	12	F
YB 09	YB 12	9	12	F
ZH 09	ZH 12	9	12	H
ZH 14	ZH 16	14	16	H

**SPECIFICATION**

Fittings Ø G [ " ]	Valve type [ ]	Nominal orifice Ø [mm]	Flow coefficient Kv [m³/h]	Minimum pressure [bar]	Max differential pressure (M.O.P.D.)		Coil type [ ]	Weight [Kg]	Notes [ ]
					in A.C.(~) [bar]	in D.C.(=) [bar]			
3/8	133 I	13	3,00	0,1	20	20	Z - Y	0,550	1 - 2
1/2	133 A	13	3,00	0,1	20	20	Z - Y	0,580	1 - 2
3/4	133 C	20	8,40	0,1	20	20	Z - Y	1,020	1 - 2
1	133 D	25	9,60	0,1	20	20	Z - Y	1,080	1 - 2
1 1/4	133.2 E	35	25,20	0,1	10	10	Z - Y	3,150	1 - 2
1 1/2	133.2 F	40	30,00	0,1	10	10	Z - Y	2,900	1 - 2
2	133 G	50	37,20	0,1	10	10	Z - Y	4,300	1 - 2

Note: 1) NP (nominal pressure): 25 bar. 2) Maximum pressure for steam: 4 bar (140°C).

**DIMENSIONS**



Fittings Ø G	A	B	C	D
[ " ]	[mm]	[mm]	[mm]	[mm]
3/8	69	92,5	40	37,5
1/2	72	94,5	40	37,5
3/4	100	100,0	65	37,5
1	104	105,5	65	37,5
1 1/4	145	127,0	102	37,5
1 1/2	145	127,0	102	37,5
2	173	141,0	118	37,5

**ORDER CODE**

<b>PM</b>	<b>133</b>	<b>H</b>	[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.
SERIES	I 3/8" A 1/2" C 3/4" D 1" • 2 E 1 1/4" • 2 F 1 1/2" G 2"	H EPDM	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. Connectors to be ordered separately.