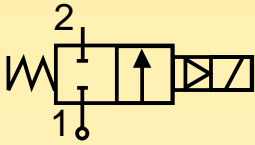


# Solenoid valves for steam and high temperatures

2/2 way - Normally Closed - Diaphragm pilot operated

Fittings: G = 3/8" - 2"

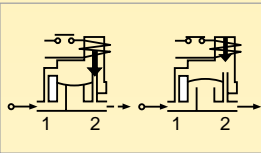
Series **133 ... H**



**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



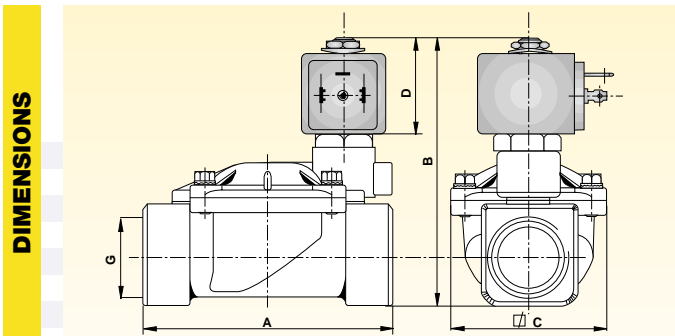
Series **133 ... H**

<b>MATERIALS</b>	• 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

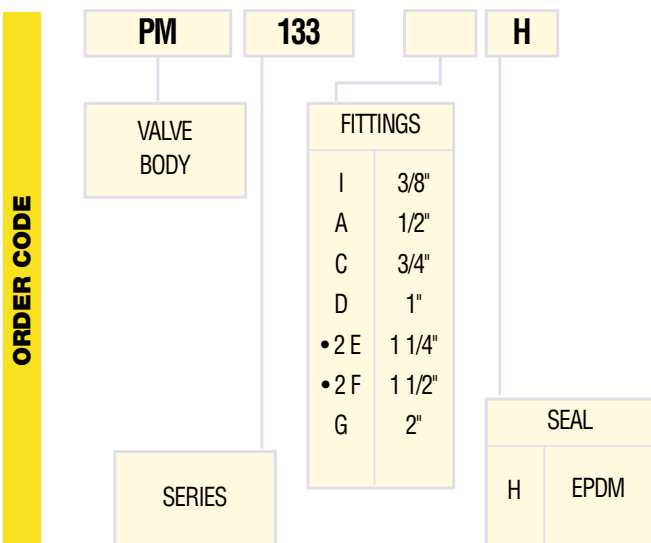
<b>ELECTRICAL FEATURES</b>	Coil type [ ]		Power [ W ]		Insulat. class
	A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
	ZB 09	ZB 12	9	12	F
	YB 09	YB 12	9	12	F
	ZH 09	ZH 12	9	12	H
	ZH 14	ZH 16	14	16	H

<b>SPECIFICATION</b>	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	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).



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



		[V]				[Hz]/d.c.	
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.	
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.