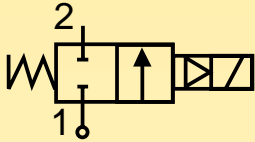


Solenoid Valves for Automation

2/2 way - Normally Closed - Diaphragm pilot operated

Fittings: G = 3/8" - 2"

Series **133**

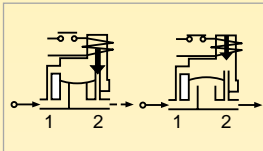


N.C.

Normally closed

Coil energised - open

Coil de-energised - closed



General description:

PARKER series 133 solenoid valves are diaphragm pilot operated and require a minimum differential pressure to operate. They are used for 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 133 valves are **normally closed**.

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" for maximum working temperature **+140°C**.

The maximum ambient temperature is:

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

Application:

Series 133 solenoid valves are ideal for the automatic control of media in a wide range of applications such as:

- thermohydraulic systems;
- autoclaves;
- cooling of machine tools;
- industrial washing plants;
- evaporation towers;
- hospital equipment;
- irrigation systems;
- fire-fighting systems;
- wood-working machines;
- marble-working machines;
- molding machines;
- hygiene-health equipment.

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

Coils:

For series 133 valves class "F" coils (**155°C**), encapsulated in thermoplastic containing 30% glass fiber (types: ZB, YB), are available.

Class "H" Coils are also available (**180°C**), 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 50/60 Hz (dualfrequency).

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**.

Series 133 solenoid valves are also available in a watertight version for applications where the conditions of humidity are particularly critical (type: YE 09).

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 12VDC, 24VDC

YB 09 220-230V/50-60Hz



• The coils:

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

YB 09 220-230V/50-60Hz



• Models are 133IN, 133AN

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

Series **133**

MATERIALS

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

ELECTRICAL FEATURES

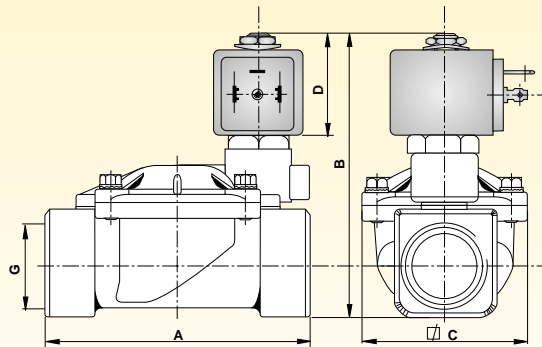
Coil type []		Power [W]		Insulat. class
A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
ZB 09	ZB 12	9	12	F
YB 09	YB 12	9	12	F
ZH 14	ZH 16	14	16	H
YE 09	-	9	-	E

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	133 I	13	3,00	0,1	20	20	Z - Y	0,550	1
1/2	133 A	13	3,00	0,1	20	20	Z - Y	0,580	1
3/4	133 C	20	8,40	0,1	20	20	Z - Y	1,020	1
1	133 D	25	9,60	0,1	20	20	Z - Y	1,080	1
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 (from 1 1/4 to 3" PN 16 bar). 2) Slow closure version.

DIMENSIONS



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

ORDER CODE

PM	133	SERIES	FITTINGS	SEAL	[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.
VALVE BODY			I 3/8" G A 1/2" G C 3/4" G D 1" G E 1 1/4" G F 1 1/2" G G 2" G	N NBR (Buna N) *V *Viton	ZB 09	•	•	•	•		
					ZB 12					•	•
					YB 09	•	•	•			
					YB 12					•	•
					ZH 14	•	•	•			
					ZH 16						•
					YE 09	•	•				
					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. * Optional Viton for fittings up to 1".