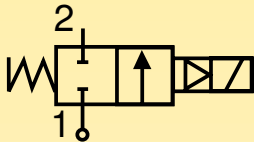


Solenoid Valves for Automation

2/2 way - Normally Closed - Diaphragm pilot operated

Fittings: G = 3/8" - 2"

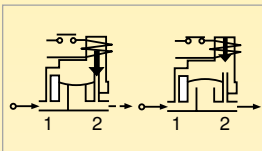
Series **133**



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	ELECTRICAL FEATURES	Coil type []		Power [W]		Insulat. class
	• Seals:		NBR (Buna N) - Viton		A.C.(~)	D.C.(=)	A.C.(~)	D.C.(=)	
	• Enclosing tube:		AISI 304 stainless steel		ZB 09	ZB 12	9	12	F
	• Plunger:		AISI 430 F stainless steel		YB 09	YB 12	9	12	F
	• Spring:		AISI 302 stainless steel		ZH 14	ZH 16	14	16	H
	• Shading ring:		Copper		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
	["]	[]	[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
	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

Technical drawing of the 3000 series valve showing front and side views with dimensions A, B, C, D, and G.

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					[V]				[Hz] / d.c.	
VALVE BODY	FITTINGS				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" G			ZB 09	•	•	•	•		
	A	1/2" G			ZB 12					•	•
	C	3/4" G			YB 09	•	•	•			
	D	1" G			YB 12					•	•
	E	1 1/4" G			ZH 14	•	•	•			
	F	1 1/2" G			ZH 16						•
	G	2" G			YE 09	•		•			
			SEAL								
	N	NBR (Buna N)									
*V	*Viton										
					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".