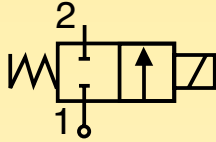


Solenoid Valves for Automation

2/2 way - Normally Closed - Direct operated

Fittings: G = 1/8" - 1/4"

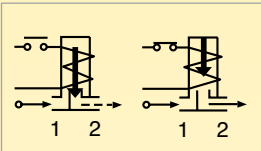
Series **146**



N.C.

Normally closed

Coil energised - open
Coil de-energised - closed



General description:

PARKER series 146 solenoid valves are direct operated and do not require a minimum differential pressure to operate. They are used for general applications with media such as **water, air, light oils (2°E) and inert gases**, provided they are compatible with the construction materials used. Series 146 valves are **normally closed**.

Temperatures:

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

Application:

Series 146 solenoid valves are ideal for the automatic control of media in a wide range of applications such as:

- Burglar alarm systems;
- Sterilisers;
- Espresso coffee machines;
- Diesel oil burners;
- Shoe manufacturing machinery;
- Ceramic plants;
- Air dryers;
- Automatic dispensers;
- Industrial washing machines;
- Water massage systems;
- Floor washing machines;
- Welding systems;
- Machines for plastics;
- Humidifiers.

For use with air the maximum differential pressure (MOPD) may be increased by 25%.

Coils:

For series 146 valves class "F" coils (**155°C**), encapsulated in thermoplastic containing 30% glass fiber (type ZB, YB), and class "H" coils (**180°C**), encapsulated in thermoplastic containing 40% glass fiber (type: ZH), are available.

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 (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
- ZB 14** 115V/50-60Hz, 220-230V/50-60Hz
- ZH 14** 24V/50-60Hz
- ZH 16** 24V DC, 12V DC
- YB 09** 220-230V/50-60Hz
- YB 14** 220-230V/50-60Hz



- For the coils:

- ZB 09** 220-230V/50-60Hz, 240V/50-60Hz
- ZB 14** 220-230V/50-60Hz
- YB 09** 220-230V/50-60Hz



- For the model VE 146.3 ABV with coil

- ZH 14** with voltage 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 **146**

MATERIALS

- Valve body: CW617N UNI EN 12165:98 brass stamping
- Seals: Viton
- 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
ZB*14	ZB*16	14	16	F
YB 09	YB 12	9	12	F
YB*14	YB*16	14	16	F
ZH*14	ZH*16	14	16	H

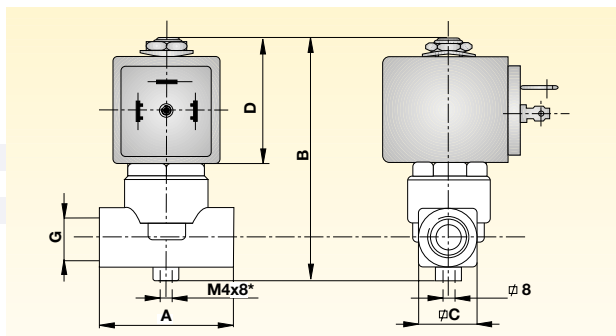
SPECIFICATION

Fittings Ø G	Valve type	Nominal orifice Ø	Flow coefficient Kv	Minimum pressure	Max differential pressure (M.O.P.D.)		Coil type	Weight	Notes
					in A.C.(~)	in D.C.(=)			
["]	[]	[mm]	[m³/h]	[bar]	[bar]	[bar]	[]	[Kg]	[]
1/8	146 F	2,5	0,197	0	15	12	Z - Y	0,340	1
1/8	146 H	3,0	0,270	0	10	8	Z - Y	0,340	1
1/4	146 W	2,5	0,197	0	15	12	Z - Y	0,340	1
1/4	146 Y	3,0	0,270	0	10	8	Z - Y	0,340	1
1/4	146.3 K	4,5	0,527	0	10	3	Z* - Y*	0,340	1
1/4	146.3 AB	6,0	0,750	0	8	1	Z* - Y*	0,340	1

Note: 1) NP (nominal pressure): 64 bar

See specification table.

DIMENSIONS



Fittings Ø G	A	B	C	D
["]	[mm]	[mm]	[mm]	[mm]
*1/8	40,0	74,5	18	37,5
1/4	40,0	74,5	18	37,5
*1/4	40,0	74,5	18	37,5

* excluded mod. 146.3K - 146.3AB

ORDER CODE

Coil type	[V]			[Hz] / d.c.		
	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					●	●
ZB 14	●	●	●	●		
ZB 16					●	●
YB 09	●	●	●			
YB 12					●	●
YB 14	●		●			
YB 16					●	●
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. Connector to be ordered separately.