

Data sheet

Solenoid valves 3/2-way direct-operated

Type EV310B



EV310B covers a wide range of direct-operated 3/2-way solenoid valves for universal use. EV310B is a real robust valve program with high performance and can be used in all kind of tough working conditions. Clip-on coils can not be used on EV310B.

Features

- For water, oil, compressed air and similar neutral media
- Differential pressure: Up to 20 bar
- Ambient temperature: Up to 40 °C
- Coil enclosure: Up to IP65
- Viscosity: Up to 50 cSt
- K_v values up to 0.40 m³/h
- Thread connection: G 1/8 , G 1/4 and G 3/8
- NC, NO, NO manual override (MAN) and NC Flange (FL), NC FL MAN versions

Brass valve body, NC



Connection ISO 228/1	Seal material	Orifice size [mm]	kv - value [m ³ /h]	Differential pressure, min. to max. [bar]	Media temperature min. to max. [°C]	Code number
G 1/8	FKM	1.5	0.08	0 – 20	-10 – 100	032U4900
G 1/8	FKM	2.0	0.15	0 – 16	-10 – 100	032U4901
G 1/8	FKM	3.0	0.30	0 – 7	-10 – 100	032U4902
G 1/4	FKM	1.5	0.08	0 – 20	-10 – 100	032U4903
G 1/4	FKM	2.0	0.15	0 – 16	-10 – 100	032U4904
G 1/4	FKM	3.0	0.30	0 – 7	-10 – 100	032U4905
G 1/4	FKM	3.5	0.40	0 – 5	-10 – 100	032U4906
G 3/8	FKM	2.0	0.15	0 – 16	-10 – 100	032U4907
G 3/8	FKM	3.0	0.30	0 – 7	-10 – 100	032U4908
G 3/8	FKM	3.5	0.40	0 – 5	-10 – 100	032U4909

Brass valve body, NO



Connection ISO 228/1	Seal material	Orifice size [mm]	kv - value [m ³ /h]	Differential pressure, min. to max. [bar]	Media temperature min. to max. [°C]	Code number
G 1/8	FKM	1.5	0.08	0 – 20	-10 – 100	032U4926
G 1/8	FKM	2.0	0.15	0 – 16	-10 – 100	032U4927
G 1/4	FKM	1.5	0.08	0 – 20	-10 – 100	032U4929
G 1/4	FKM	2.0	0.15	0 – 16	-10 – 100	032U4930
G 1/4	FKM	3.0	0.30	0 – 7	-10 – 100	032U4931
G 3/8	FKM	2.0	0.15	0 – 16	-10 – 100	032U4933
G 3/8	FKM	3.0	0.30	0 – 7	-10 – 100	032U4934

Brass valve body, NO MAN



Connection ISO 228/1	Seal material	Orifice size [mm]	kv - value [m ³ /h]	Differential pressure, min. to max. [bar]	Media temperature min. to max. [°C]	Code number
G 1/4	FKM	1.5	0.08	0 – 20	-10 – 100	032U4943
G 1/4	FKM	2.0	0.15	0 – 16	-10 – 100	032U4944

Brass valve body, NC FL



Connection ISO 228/1	Seal material	Orifice size [mm]	kv - value [m ³ /h]	Differential pressure, min. to max. [bar]	Media temperature min. to max. [°C]	Code number
Flange 32x32	FKM	1.5	0.08	0 – 20	-10 – 100	032U4911
Flange 32x32	FKM	2.0	0.15	0 – 16	-10 – 100	032U4912

Brass valve body, NC FL MAN



Connection ISO 228/1	Seal material	Orifice size [mm]	kv - value [m ³ /h]	Differential pressure, min. to max. [bar]	Media temperature min. to max. [°C]	Code number
Flange 32x32	FKM	2.0	0.15	0 – 16	-10 – 100	032U4923

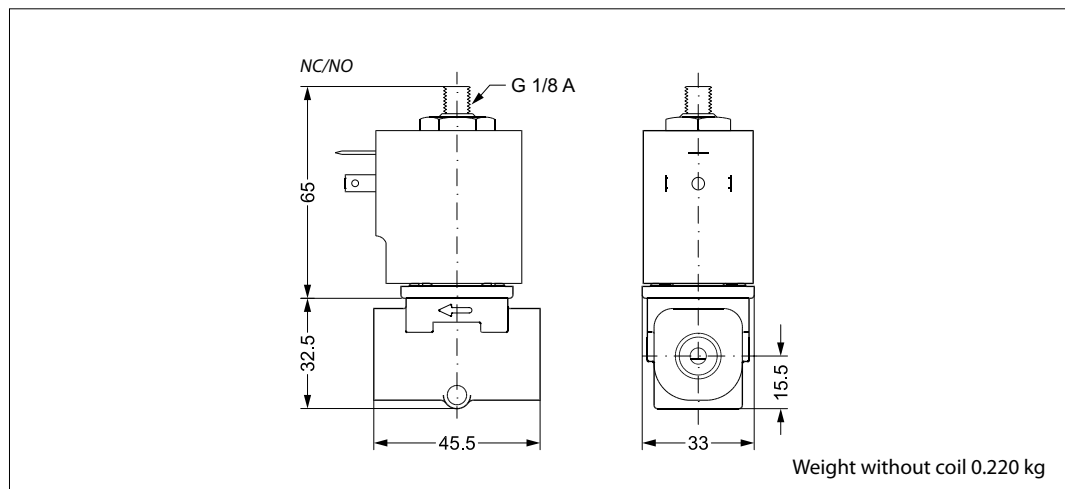
Technical data
NC / NO / NO MAN / NC FL /
NC FL MAN

Main type	EV310B NC / NO / NO MAN / NC FL / NC FL MAN
Time to open [ms] ¹⁾	10 – 20
Time to close [ms] ¹⁾	10 – 20

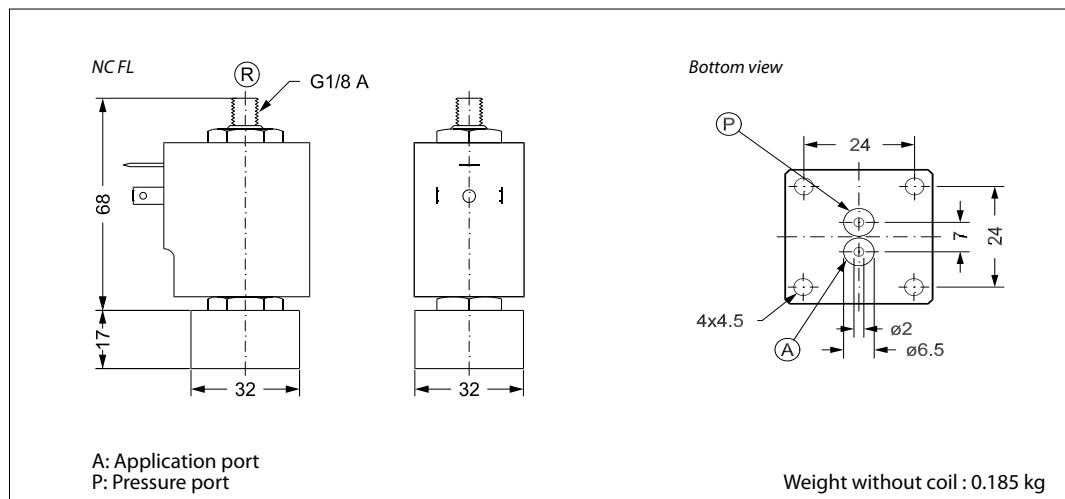
¹⁾The times are indicative.

Type	EV310B NC / NO / NO MAN / NC FL / NC FL MAN		
Installation	Vertical solenoid system is recommended		
Max. test pressure	50 bar		
Pressure range	0 – 20 bar		
Ambient temperature	Up to 40 °C		
Viscosity	Max. 50 cSt		
Materials	Valve body:	Brass	W.no. 2.0402
	Armature:	Stainless steel	W.no. 1.4105/AISI 430FR
	Armature tube:	Stainless steel	W.no. 1.4306/AISI 304L
	Armature stop:	Stainless steel	W.no. 1.4105/AISI 430FR
	Spring:	Stainless steel	W.no. 1.4310/AISI 301
	Seal material:	FKM	–


**Dimensions and weight
NC / NO / NO MAN**



**Dimensions and weight
NC FL / NC FL MAN**

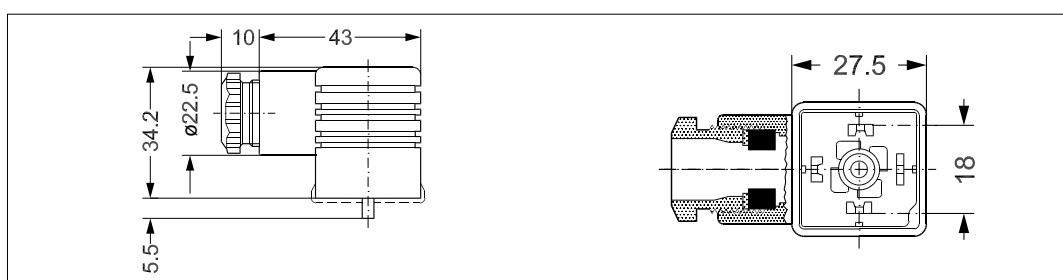


Below coils can be used with EV310B

Coil	Type	Power consumption	Enclosure	Features
	BA / BD, screw on	9 W a.c. 15 W a.c. 15 W d.c.	IP00 with spade connector	IP20 with protective cap, IP65 with cable plug

Accessories:
Cable plug

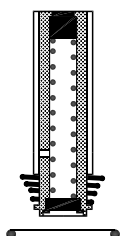
Application	Code number
GDM 2011 (grey) cable plug according to DIN 43650-A PG11	042N0156



Spare parts kit

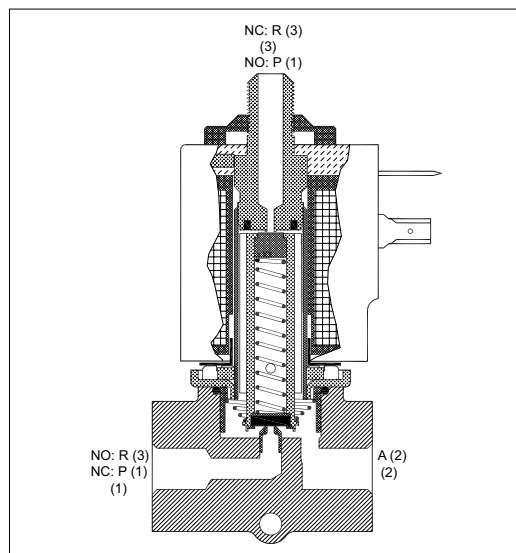
Connection	Type	Seal material	Code number
Thread connection	NC	FKM	032U2033
Thread connection	NO	FKM	032U2035
FL version	NO	FKM	032U2036

The spare parts kit comprises:
An armature with mounted spring
O-ring



Function, NC

- 1.Coil
- 2.Armature
- 3.Closing spring
- 4.Valve plate
- P:Pressure port (1)
- A:Application port (2)
- R:Relief port (3)



Coil voltage disconnected (closed):

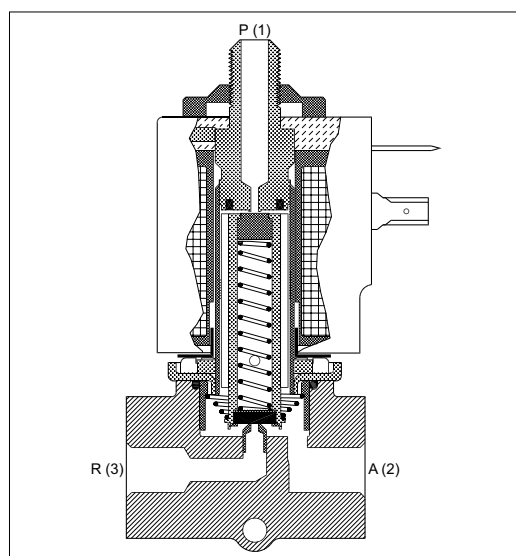
When the voltage to the coil (1) is disconnected, the armature (2) with the valve plates (4) is pressed down by the closing spring (3) and closes the connection between P and A. At the same time, the connection between ports P and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):

When voltage is applied, the armature (2) with the valve plates (4) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened. The connection between P and A will be open for as long as there is voltage to the coil.

Function, NO

- 1.Coil
- 2.Armature
- 3.Opening spring
- 4.Valve plate
- R:Relief port (3)
- A:Application port (2)
- P:Pressure port (1)



Coil voltage disconnected (open):

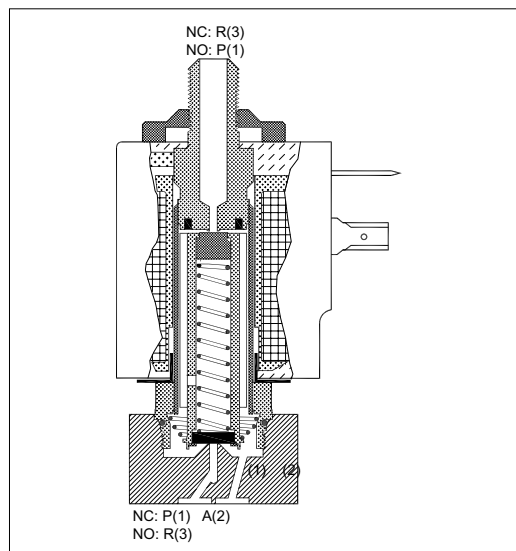
When the voltage is disconnected, the armature (2) with the valve plates (4) is pressed down by the opening spring (3) and closes the connection between A and R. At the same time, the connection between ports P and A is open. The connection between P and A will be open for as long as the voltage to the coil is disconnected. On valves with manual override the connection between P and A can be closed using a closing screw in the valve body.

Coil voltage connected (closed):

When voltage is applied to the coil (1), the armature (2) with the valve plates (4) is lifted and closes the connection between P and A. At the same time, the connection between ports A and R is opened. The connection between P and A will be closed for as long as there is voltage to the coil.

Function, NC FL32

- 1.Coil
- 2.Armature
- 3.Closing spring
- 4.Valve plate
- P:Pressure port (1)
- A:Application port (2)
- R:Relief port (3)



Coil voltage disconnected (open):

When the voltage to the coil (1) is disconnected, the armature (2) with the valve plates (4) is pressed down by the closing spring (3) and closes the connection between P and A. At the same time, the connection between ports A and R is opened. The connection between P and A will be closed for as long as the voltage to the coil is disconnected. On valves with manual override the connection between P and A can be opened using an opening screw in the valve body.

Coil voltage connected (closed):

When voltage is applied, the armature (2) with the valve plates (4) is lifted and closes the connection between A and R. At the same time, the connection between P and A is opened. The connection between P and A will be open for as long as there is voltage to the coil.