

# Solenoid valves with isolating diaphragm 2/2-way servo-operated Type EV222B

De-energized W closed

## Type EV222B for neutral and aggressive liquids DN 15-50 SS



G <sup>1</sup>/<sub>8</sub> - G 2

#### Features



- The isolating diaphragm design ensures that no fluid enters the armature area, which gives the following advantages:
  - the valve is resistant to aggressive fluids, to impurities in the fluid and to to calcareous and other scale deposits
- Differential pressure: Up to 16 barViscosity: Up to 50 cSt
- Ambient temperature: Up to +60°C
- Coil enclosure: Up to IP 67 ٠ ٠
- Thread connection: From G <sup>1</sup>/<sub>8</sub> to G 2
- Water hammer damped ٠
- · Built in filter for protection of pilot system

#### **Technical data**

Installation	Optional, but vertical solenoid system is recommended		
Nominal pressure	PN 10		
Differential pressure	0.3 to 10 bar		
Max. test pressure	16 bar		
Ambient temperature	Max. 60°C (depending on coil type, see below)		
Medium temperature	0 to +100°C (Water: +60°C)		
Viscosity	Max. 50 cSt		
Materials in contact with fluid			
Valve body	W.no. 1.4581 / AISI 318 <sup>1)</sup>		
Flange for isolating diaphragm	W.no. 1.4404 / AISI 316L <sup>1)</sup>		
Diaphragm plate	W.no. 1.4301 / AISI 304 <sup>1)</sup>		
Isolating diaphragm	FKM		
Main diaphragm	FKM		
O-rings	FKM		
Closing spring	W.no. 1.4310 / AISI 301 <sup>1)</sup>		
Fluid above isolating diaphragm	Silicone oil		

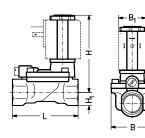
## **Coil options**

Type: BB 10W ac / 18W dc See DKACV.PD.600.A



10W ac / 18W dc See DKACV.PD.600.A

#### **Dimensions and weight**



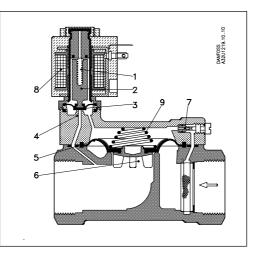
Туре	L	В	B₁ [mm]	H <sub>1</sub>	Н	Weight without
			Coil type			coil
	[mm]	[mm]	BB/BE	[mm]	[mm]	[kg]
EV222B 15 SS	80.0	52.0	46	15.0	99.0	0.8
EV222B 20 SS	90.0	58.0	46	18.0	103.0	1.0
EV222B 25 SS	109.0	70.0	46	22.0	113.0	1.4
EV222B 32 SS	120.0	82.0	46	27.0	120.0	2.0
EV222B 40 SS	130.0	95.0	46	32.0	129.0	3.2
EV222B 50 SS	162.0	113.0	46	37.0	135.0	4.3

G <sup>1</sup>/<sub>8</sub> - G 2

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Function EV222B servo-operated



2/2-way servo-operated

When voltage is applied to the coil (8), the armature (2) with the isolating diaphragm (3) is lifted clear of the pilot orifice (4) and the diaphragm (5) is lifted by the fluid pressure - the main orifice (6) opens.

When voltage is disconnected the isolating diaphragm (3) is pressed down against the pilot orifice (4) by the armature spring (1) and pressure is built up above the diaphragm (5) via the equalizing orifice (7). The main orifice is closed by the fluid pressure and the spring (9). The isolating diaphragm keeps the medium away from the actuator.

The space above the isolating diaphragm is filled up with silicone oil.

# Ordering - valve body

oracin	Sidering - valve body									
Con-	Seal	k <sub>v</sub> -	M	edia			Code no.	Pern	nissible diff. pressu	re (bar)/Coil type
nection	material	value	temp.		Type desi	Type designation		Min.	М	ax.
ISO			Min.	Max.					BB	/BE
228/1		[m³/h]	[°C]	[°C]	Main type	Specification			10 W ac	18 W dc
G 1/2	FKM <sup>1)</sup>	4	0	+100	EV222B 15 SS	G 12F NC000	032U8526	0.3	10	10
G <sup>3</sup> / <sub>4</sub>	FKM <sup>1)</sup>	8	0	+100	EV222B 20 SS	G 34F NC000	032U8527	0.3	10	10
G 1	FKM <sup>1)</sup>	11	0	+100	EV222B 25 SS	G 1F NC000	032U8528	0.3	10	10
G 1 <sup>1</sup> / <sub>4</sub>	FKM <sup>1)</sup>	18	0	+100	EV222B 32 SS	G 114F NC000	032U8529	0.3	10	10
G 1 <sup>1</sup> / <sub>2</sub>	FKM <sup>1)</sup>	24	0	+100	EV220B 40 SS	G 112F NC000	032U8530	0.3	10	10
G 2	FKM <sup>1)</sup>	40	0	+100	EV220B 50 SS	G 2F NC000	032U8531	0.3	10	10

<sup>1)</sup> Suitable for oil and air. Note: Water max. 60°C!

#### **Ordering - coils**

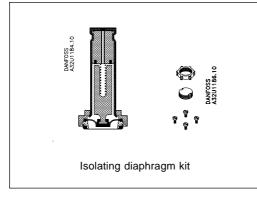
See separate data sheet for coils DKACV.PD.600.A

Spare parts

# Danfoss

# for solenoid valves 2/2-way with isolathing diaphragm Type EV222B

#### Spare parts

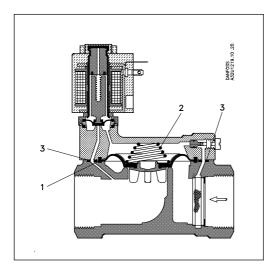


The kit consists of assembled isolating unit, O-ring, 4 screws, locking button and nut for the coil.

Seal material	Code no.
EPDM <sup>1)</sup>	042U1009
FKM <sup>2)</sup>	042U1010

<sup>1)</sup> Suitable for water.
<sup>2)</sup> Suitable for oil and

Suitable for oil and air. Water max. 60 °C.



Туре	Seal material	Code no.
DN15	FKM <sup>1)</sup>	032U6326
DN20	FKM <sup>1)</sup>	032U6327
DN25	FKM <sup>1)</sup>	032U6328
DN32	FKM <sup>1)</sup>	032U6329
DN40	FKM <sup>1)</sup>	032U6330
DN50	FKM <sup>1)</sup>	032U6331

<sup>1)</sup> Suitable for oil and air. Water max. 60 °C.

The spare part kits comprise a complete diaphragm (1), closing spring (2) and O-rings for the pilot system (3).

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