

Solenoid valves 2/2-way direct- and servo-operated Types EV215B and EV225B

Features



EV215B 3 and EV225B 6 - 25

- For robust industrial application.
- For steam with a temperature of up to 185°C.
- EV225B valves are particularly suitable for applications requiring dirt-resistant valves.
- Steam pressure: Up to 10 bar.
- Ambient temperature: Up to 40°C.
- Coil enclosure: IP 43
- Thread connections: From G ¼ to G 1
- Regarding NPT thread, please contact Danfoss.

Technical data

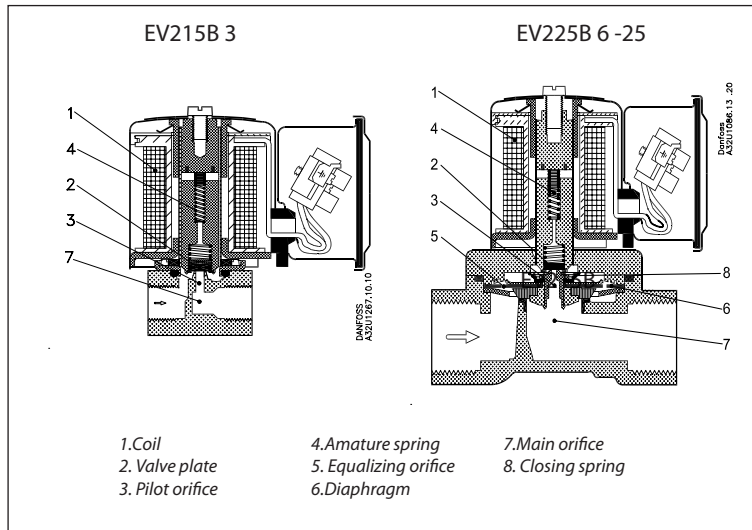
Type	EV215B 3	EV225B 6 - 25
Installation	Vertical solenoid system is recommended	
Pressure range	Max. 10 bar	
Max. test pressure	25 bar	
Time to open ¹⁾	Max. 0.2 s	
Time to close ¹⁾	Max. 2.0 s	
Ambient temperature	Max. 40°C at a medium temperature of 185°C	
Medium temperature	185°C with ac coil / 160°C with dc coil	
Materials		
Valve body:	Stainless steel, W. no. 1.4404 / AISI 316L	DZR ²⁾ Brass
Armature/ Armeture stop:	Stainless steel, W. no. 1.4105 / AISI 430FR	
Armature tube:	Stainless steel, W. no. 1.4306 / AISI 304L	
Spring:	Stainless steel, W. no. 1.4310 / AISI 301	
Diaphragm:		PTFE
Valve plate:	PTFE	
Valve seat:		Stainless steel, W. no. 1.4305 / AISI 303
External gaskets:	O-ring: AFLAS	

1) The times are maximum values and apply to steam.

The exact times will depend on the pressure conditions.

2) DZR Brass = Dezincification Resistant Brass

Function



Coil voltage disconnected (closed):

When the voltage is disconnected, the valve plate (2) is pressed down against the pilot orifice (3) by the armature spring (4). The pressure across the diaphragm (6) is built up via the equalizing orifice (5). The diaphragm/piston closes the main orifice (7) as soon as the pressure across the diaphragm/piston is equivalent to the inlet pressure. The valve will be closed for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):

When voltage is applied to the coil (1), the pilot orifice (3) is opened. As the pilot orifice is larger than the equalizing orifice (5), the pressure across the diaphragm (6) drops and therefore it is lifted clear of the main orifice (7). The valve is now open for unimpeded flow and will be open for as long as the minimum differential pressure across the valve is maintained, and for as long as there is voltage to the coil.

Ordering

Conne- ction ISO 228/1	Seal mate- rial	k _v - value [m ³ /h]	Media temp		Type designation		Code no. (without coil)	Pressure range (bar)/Coil type		
			ac coil Max. [°C]	dc coil Max. [°C]	Main type	Specification		Min.	Max.	
									10 W ac	17 W dc
G 1/4	PTFE	0.3	185	160	EV215B 3 SS	G14T NC000	032U3001	0	10	10
G 1/4	PTFE	0.9	185	160	EV225B 6 BD	G14T NC000	032U3002	0.2	10	10
G 3/8	PTFE	2.2	185	160	EV225B 10 BD	G38T NC000	032U3003	0.2	10	10
G 1/2	PTFE	2.2	185	160	EV225B 10 BD	G12T NC000	032U3004	0.2	10	10
G 1/2	PTFE	3.0	185	160	EV225B 15 BD	G12T NC000	032U3005	0.2	10	10
G 3/4	PTFE	5.0	185	160	EV225B 20 BD	G34T NC000	032U3006	0.2	10	10
G 1	PTFE	6.0	185	160	EV225B 25 BD	G1T NC000	032U3007	0.2	10	10

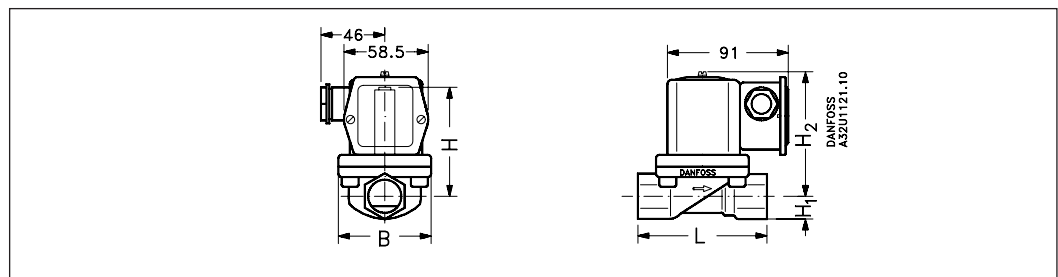
Coil voltage	Coil output	Appendix ¹⁾
220-230 V, 50Hz	10 W a.c.	84
220 V, 60Hz	10 W a.c.	90

1) To order valve body without coil use appendix **99**.

Example: Code no. for EV225B 15BD valve with 230 V 50 Hz coil is **032U3005.84**

Voltage tolerances	230 V ac coils: +6%, -15%. Other a.c. coils: +10%, -15%.
Power consumption, inrush	ac coils: 50 VA
Power consumption, holding	ac coils: 20 VA, 10 W ac
Insulation of coil windings	Class H according to IEC 85
Connection	Terminal box; Pg 13.5
Coil enclosure, IEC 529	IP 43
Ambient temperature	Max. 40°C
Duty rating	Continuous.

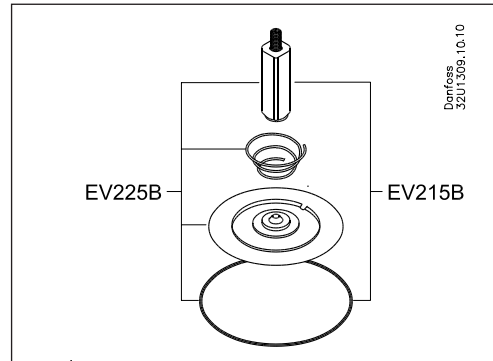
Dimensions and weight



Valve type	L [mm]	B [mm]	H [mm]	H ₁ [mm]	H ₂ ¹⁾ [mm]	Weight with coil [kg]
EV215B 3 SS	38	34	65.5	11.5	76.5	0.56
EV225B 6 BD	62	46	75	13	87	0.78
EV225B 10 BD	62	46	75	13	87	0.82
EV225B 15 BD	81	56	77	15	88.5	0.96
EV225B 20 BD	98	72	84	18	95	1.4
EV225B 25 BD	106	72	90	21	103	1.8

1) In the case of dc coils 5 mm is added to the H₂ measurement.

Spare parts kits



Spare parts kit for EV215B 3

The spare parts kit comprises an armature with valve plate, spring and O-ring.

Spare parts kit for EV225B 6-25

The spare parts kit comprises an armature with valve plate and spring, closing spring, diaphragm and O-ring.

Type	Code no.
EV215B 3	032U3170
EV225B 6-10	032U3171
EV225B 15	032U3172
EV225B 20-25	032U3173

Spare coils



Coil voltages	Code no.
24 V, 50 Hz (10 W ac)	032K1436.82
48 V, 50 Hz (10 W ac)	032K1436.87
110 V, 50 Hz (10 W ac)	032K1436.83
220-230 V, 50 Hz (10 W ac)	032K1436.84
240 V, 50 Hz (10 W ac)	032K1436.85
110 V, 60 Hz (10 W ac)	032K1436.91
220 V, 60 Hz (10 W ac)	032K1436.90
24 V dc (17 W dc)	032K1409.02

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.