

**EV225B  
DZR brass valve body, NC**


- In accordance with:
  - Low Voltage Directive 2014/35/EU
  - EN60730-1
  - EN60730-2-8
 (Notified body by Semko)
  - Pressure Equipment Directive 2014/68/EU
  - RoHS Directive 2011/65/EU
- UL recognized

ISO228/1 connection	Seal material	Orifice size [mm]	K <sub>V</sub> - value [m <sup>3</sup> /h]	Media temperature min. to max. [°C]		Differential pressure min. to max. [bar] <sup>3)</sup>	Code no.
				AC coil	DC coil		
G 1/4	PTFE	6	0.9	0 – 185	0 – 160	0.2 – 10	<b>032U3802</b>
G 3/8	PTFE	10	2.2	0 – 185	0 – 160	0.2 – 10	<b>032U3803</b>
G 1/2	PTFE	10	2.2	0 – 185	0 – 160	0.2 – 10	<b>032U3804</b>
G 1/2	PTFE	15	3.0	0 – 185	0 – 160	0.2 – 10	<b>032U3805</b>
G 3/4	PTFE	20	5.0	0 – 185	0 – 160	0.2 – 10	<b>032U3806</b>
G 1	PTFE	25	6.0	0 – 185	0 – 160	0.2 – 10	<b>032U3807</b>

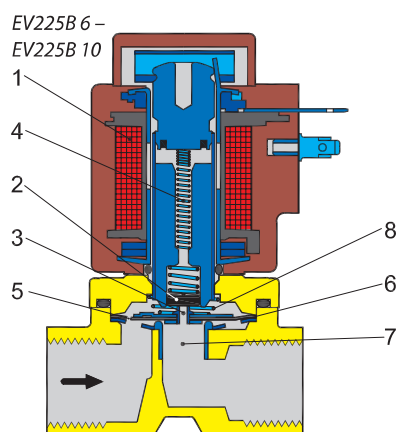
**Technical data**

<b>Main type</b>	<b>EV225B 6-25</b>
Time to open [ms] <sup>1)</sup>	Max. 0.2 s
Time to close [ms] <sup>1)</sup>	Max. 0.2 s

<sup>1)</sup> The times are indicative. The exact times will depend on the pressure conditions.

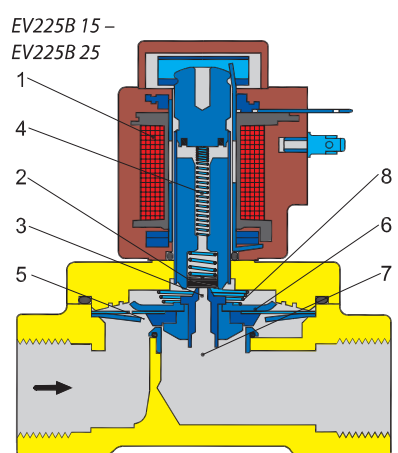
Installation	Vertical solenoid system is recommended		
Max. working pressure (MWP)	10 bar		
Max. test pressure	25 bar		
Ambient temperature	Max. 40 °C at a media temperature of 185 °C		
Viscosity	Max. 50 cSt		
Materials	Valve body	Dezincification resistant brass	
	Armature / armature stop	Stainless steel	W. no. 1.4105 / AISI 430FR
	Spring	Stainless steel	W. no. 1.4306 / AISI 304L
	Armature tube	Stainless steel	W. no. 1.4310 / AISI 301
	Diaphragm	PFTE	
	Valve plate	PFTE	
	Valve seat	Stainless steel	
External gaskets	O-ring: AFLAS		

**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.

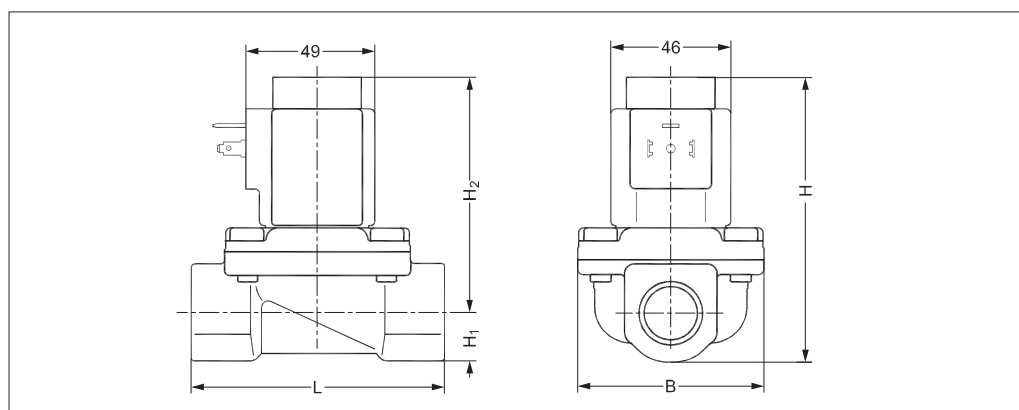


**Coil voltage connected (open):**

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.

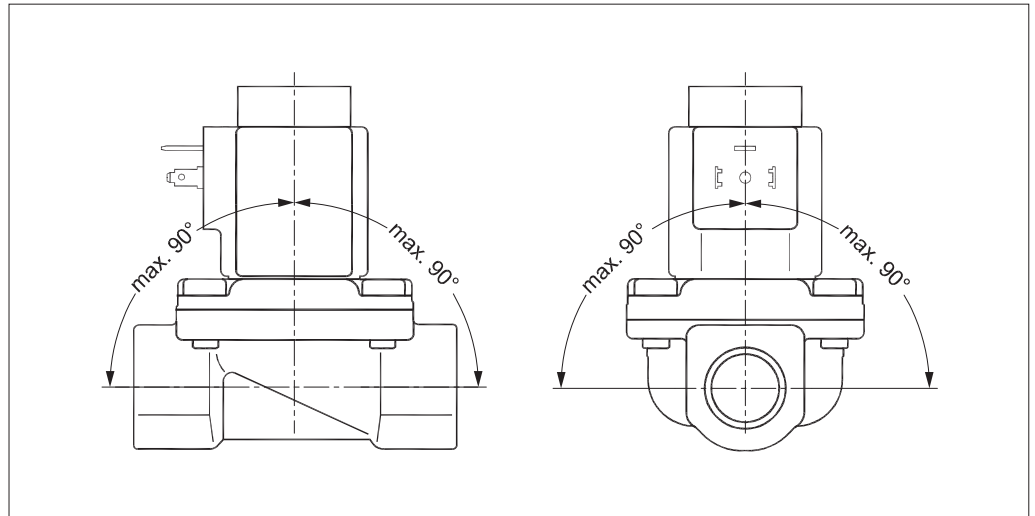
Pos. no.	Description
1	Coil
2	Valve plate
3	Pilot orifice
4	Armature spring
5	Equalizing orifice
6	Diaphragm
7	Main orifice
8	Closing spring

**Dimensions and weight**



Type	L	B	H	H <sub>1</sub>	H <sub>2</sub>	Weight gross valve body with coil BB/BY [kg]	Weight gross valve body with coil BN [kg]
	[mm]	[mm]	[mm]	[mm]	[mm]		
EV225B 6 BD	62	46	98	13	85	0.8	1.0
EV225B 10 BD	62	46	98	13	85	0.8	1.6
EV225B 15 BD	81	56	102	15	87	0.9	1.1
EV225B 20 BD	98	72	110	18	92	1.4	1.6
EV225B 25 BD	106	72	117	21	96	1.7	1.9

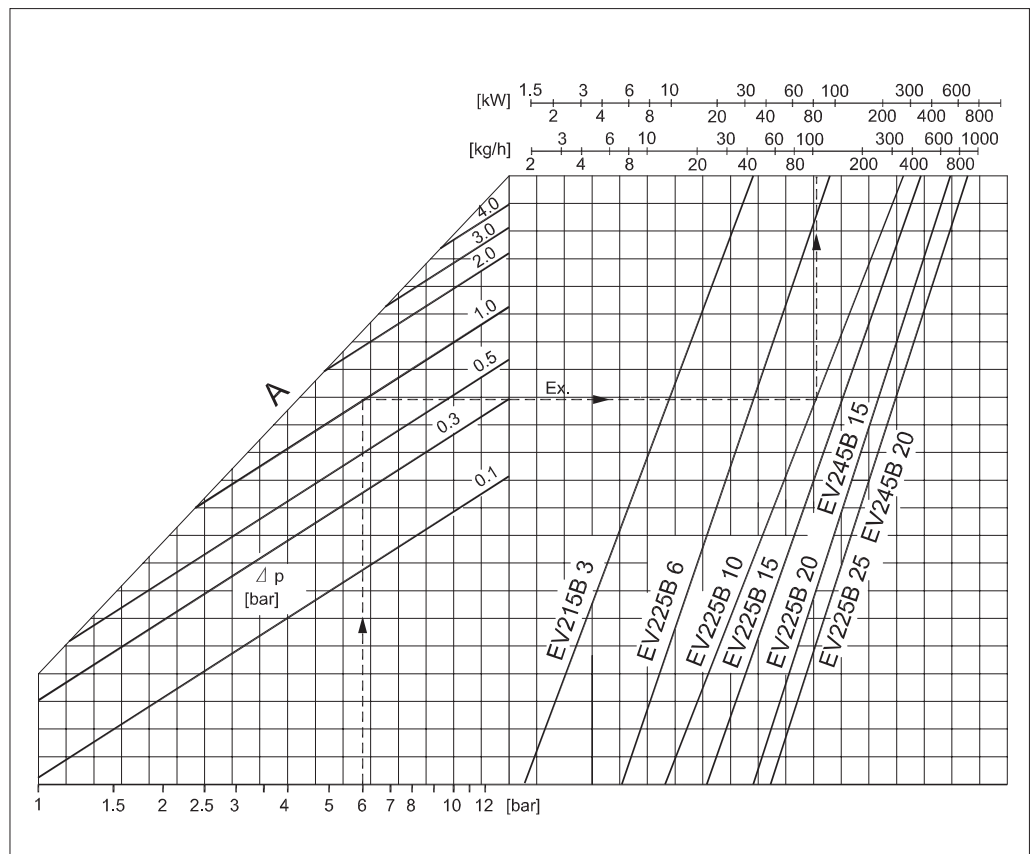
**Mounting angle**



**Steam capacity diagrams**

**Example**

Capacity for EV225 10 BD; inlet pressure ( $p_1$ ) of 6 bar absolute; differential pressure at 1 bar: approx. 100 kg/h / 80 kW



**Steam coils type BQ and BN**



- Enclosure:
  - IP00 version with DIN 43650 A spade connectors
  - IP20 version with protective cap
  - IP65 version with mounted cable plug
- In accordance with:
  - Low Voltage Directive 2014/35/EU
    - EN60730-1
    - EN60730-2-8
 (Notified body by Semko)
  - RoHS Directive 2011/65/EU
- Coils are UL recognised

**Coil type BQ AC**  
Steam coils to 185 °C



Type	Tambient	Supply voltage	Voltage variation	Frequency	Power consumption		Approval	Code no.
	[°C]	[V]			[W]	[VA]		
BQ024CS	-40 – 40	24	-15%, +10%	50	10	17		018F4517
		24	-15%, +10%	60	9.0	16		
BQ120BS	-40 – 40	110 - 120	-15%, +6%	60	13.5	19		018F4519
BQ240CS	-40 – 40	230	-15%, +6%	50	10	17		018F4511
		208 - 240	-6%, +6%	60	9.5	16		

**Technical data**

Design	In accordance with UL 429
Insulation of coil windings	Class H according to IEC 85
Connection	Spade connector in accordance with DIN 43650 form A
Enclosure, IEC 529	Up to IP65 / NEMA4
Plug type	Cable plug (042N0156)

**Coil type BN DC**  
Steam coils to 160 °C

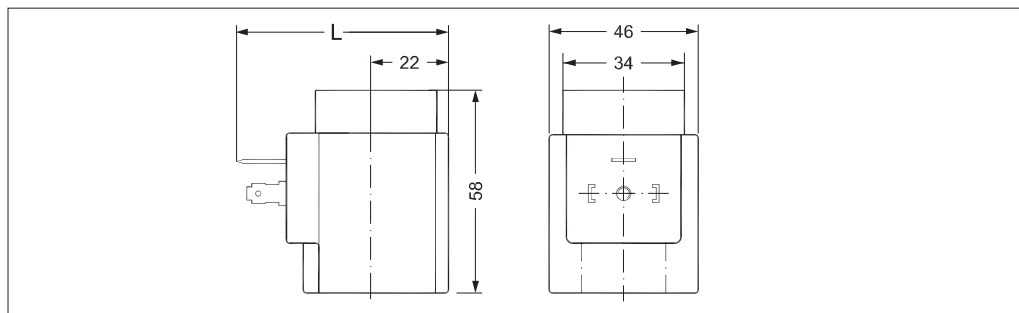


Type	Tambient	Supply voltage	Voltage variation	Frequency	Power consumption		Approval	Code no.
	[°C]	[V]			[W]	[VA]		
BN024DS	-40 – 50	24	±10%	DC	20	–		018F6968

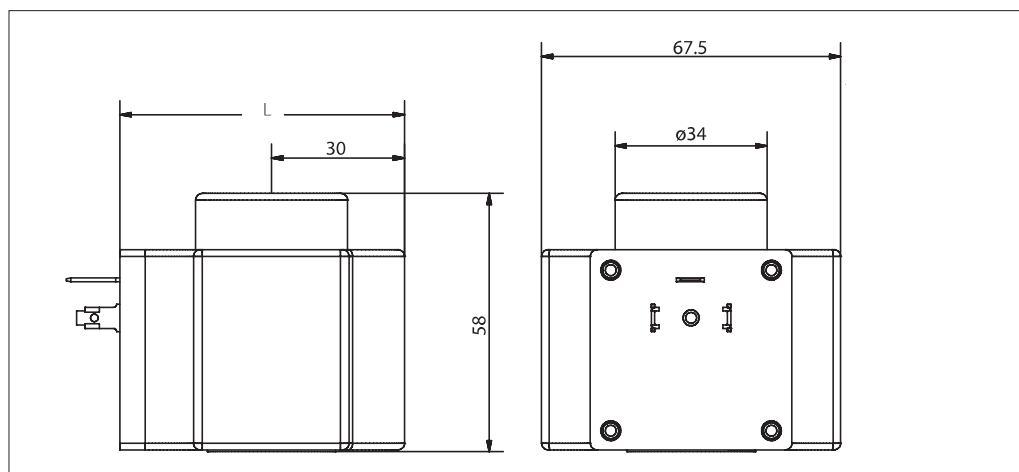
**Technical data**

Design	In accordance with VDE 0580
Insulation of coil windings	Class H according to IEC 85
Connection	Terminal box or cable plug in accordance with DIN43650 form A
Enclosure, IEC 529	IP65, IP67
Duty rating	Continuous

**Dimensions and weight**  
BQ/BN coils



Type	L without cable plug	L with protective cap	L with cable plug	Weight
	[mm]	[mm]	[mm]	[kg]
BQ	62	77	85	0.24



Type	L	Weight
	[mm]	[kg]
BN	64	0.47

**Accessories:**  
Cable plug

Type, Form A	Code no.
GDM 2011 (grey) cable plug according to DIN 43650-A PG11	042N0156

