

Data sheet

Solenoid valve

Types EV220B 15-50 and EV220BW 40-50



EV220B 15-50 and EV220BW 40-50 are a universal indirect servo-operated 2/2-way solenoid valve program.

Valve body in brass, dezincification resistant brass and stainless steel ensures that a broad variety of application can be covered.

Built-in pilot filter as standard, adjustable closing time and enclosures up to IP67 ensures optimal performance even under critical working conditions.

Features and versions:

- For water, steam, oil, compressed air and gases
- Flow range for water: 1.3 – 160 m³/h
- Differential pressure: 0.3 – 16 bar
- Media temperature from -30 – 140 °C
- Ambient temperature: Up to 80 °C
- Coil enclosure: Up to IP67
- Thread connections: From G ½ – G 2
- DN 15 – 50
- Viscosity: Up to 50 cSt
- Water hammer damped
- Built in filter for protection of pilot system
- Adjustable closing time available
- EV220B 15-50 NC and NO brass version for neutral liquids and gasses
- EV220B 15-50 NC DZR brass version for neutral and slightly aggressive liquids and gases
- EV220B 15-50 NC Stainless Steel version for neutral and aggressive liquids and gases
- EV220BW 40-50 NC+NO EPDM and WRAS for drinking water

EV220B 15-50
Brass valve body, NC



- WRAS  (see table below)
- ACS 
- PZH 
- In accordance with:
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8
 - Pressure Equipment Directive 2014/68/EU
- UL recognized 

Connection ISO228/1	Seal material	Orifice size	K _v - value	Differential pressure min. to max. ⁶⁾	Max. working pressure	Media temperature min. to max.	Approval	Code number
			[m ³ /h]	[bar]	[bar]	[°C]		
G ½	EPDM ¹⁾	15	4	0.3 – 16	16	-30 – 120 ⁴⁾		032U7115
	NBR ²⁾	15	4	0.3 – 16	16	-10 – 90		032U7170
	FKM ³⁾	15	4	0.3 – 10	10	0 – 100 ⁵⁾		032U7116
G ¾	EPDM ¹⁾	20	8	0.3 – 16	16	-30 – 120 ⁴⁾		032U7120
	NBR ²⁾	20	7.5	0.3 – 16	16	-10 – 90		032U7171
	FKM ³⁾	20	8	0.3 – 10	10	0 – 100 ⁵⁾		032U7121
G 1	EPDM ¹⁾	25	11	0.3 – 16	16	-30 – 120 ⁴⁾		032U7125
	NBR ²⁾	25	11	0.3 – 16	16	-10 – 90		032U7172
	FKM ³⁾	25	11	0.3 – 10	10	0 – 100 ⁵⁾		032U7126
G 1 ¼	EPDM ¹⁾	32	18	0.3 – 12	12	-30 – 120 ⁴⁾		032U7132
	NBR ²⁾	32	18	0.3 – 12	12	-10 – 90		032U7173
	FKM ³⁾	32	18	0.3 – 10	10	0 – 100 ⁵⁾		032U7133
G 1 ½	EPDM ¹⁾	40	24	0.3 – 12	12	-30 – 120 ⁴⁾		032U7140
	NBR ²⁾	40	24	0.3 – 12	12	-10 – 90		032U7174
	FKM ³⁾	40	24	0.3 – 10	10	0 – 100 ⁵⁾		032U7141
G 2	EPDM ¹⁾	50	40	0.3 – 12	12	-30 – 120 ⁴⁾		032U7150
	NBR ²⁾	50	40	0.3 – 12	12	-10 – 90		032U7175
	FKM ³⁾	50	40	0.3 – 10	10	0 – 100 ⁵⁾		032U7151

¹⁾ EPDM is recommended for water.

²⁾ NBR is suitable for oil, water and air.

³⁾ FKM is suitable for oil and air. For water at max. +60 °C.

⁴⁾ Low pressure steam, 4 bar: Max. 140 °C.

BA AC/DC and BB/BE DC coils: Max. 100 °C.

BO and BP coils: Max. 90 °C.

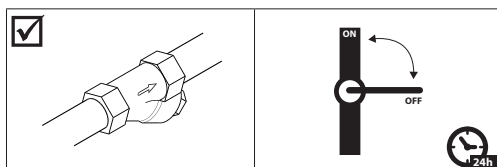
⁵⁾ For water: Max. 60 °C.

BO and BP coils: Max. 90 °C.

⁶⁾ It is recommended to use a filter in front of the valve.

⁷⁾ In water applications, exercise the valves at least once every 24 hours, meaning change the state of the valve.

The valve exercise will minimize the risk of the valve sticking due to calcium carbonate, zinc or iron oxide build-up.



Data sheet | Solenoid valves, type EV220B 15-50 and EV220BW 40-50

Technical data, brass valve body, NC and NO

Main type	EV220B 15B	EV220B 20B	EV220B 25B	EV220B 32B	EV220B 40B	EV220B 50B
Time to open [ms] ¹⁾	40	40	300	1000	1500	5000
Time to close [ms] ¹⁾	350	1000	1000	2500	4000	10000

¹⁾ The times are indicative and apply to water. The exact times will depend on the pressure conditions.
Closing times can be changed by replacement of the equalizing orifice.

Installation	Optional, but vertical solenoid system is recommended		
Max. test pressure	20 bar		
Viscosity	Max. 50 cSt		
Materials	Valve body:	Brass	W.no. 2.0402
	Armature:	Stainless steel	W.no. 1.4105 / AISI 430 FR
	Armature tube:	Stainless steel	W.no. 1.4306 / AISI 304 L
	Armature stop:	Stainless steel	W.no. 1.4105 / AISI 430 FR
	Springs	Stainless steel	W.no. 1.4310 / AISI 301
	O-rings:	EPDM, FKM or NBR	
	Valve plate:	EPDM, FKM or NBR	
	Diaphragm:	EPDM, FKM or NBR	

EV220B 15-50
Dezincification resistant
brass (DZR)
Valve body, NC



- WRAS 
- ACS 
- PZH 
- In accordance with:
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8
 - Pressure Equipment Directive 2014/68/EU
- UL recognized 

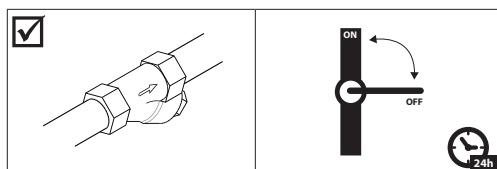
Connection ISO228/1	Seal mate- rial	Orifice size	K _v -value	Differential pressure Min. – max.	Max. working pressure	Media temperature min. to max.	Approval	Code no.
			[m ³ /h]	[bar]	[bar]	[°C]		
G ½	EPDM ¹⁾	15	4	0.3 – 16	16	-30 – 120 ²⁾		032U5815
G ¾	EPDM ¹⁾	20	8	0.3 – 16	16	-30 – 120 ²⁾		032U5820
G 1	EPDM ¹⁾	25	11	0.3 – 16	16	-30 – 120 ²⁾		032U5825
G 1 ¼	EPDM ¹⁾	32	18	0.3 – 12	12	-30 – 120 ²⁾		032U5832
G 1 ½	EPDM ¹⁾	40	24	0.3 – 12	12	-30 – 120 ²⁾		032U5840
G 2	EPDM ¹⁾	50	40	0.3 – 12	12	-30 – 120 ²⁾		032U5850

¹⁾ EPDM is recommended for water.

²⁾ Low pressure steam, 4 bar: Max. 140 °C.
 BA AC/DC and BB/BE DC coils: Max. 100 °C.
 BO and BP coils: Max. 90 °C.

⁶⁾ It is recommended to use a filter in front of the valve.

⁷⁾ In water applications, exercise the valves at least once every 24 hours, meaning change the state of the valve.
 The valve exercise will minimize the risk of the valve sticking due to calcium carbonate, zinc or iron oxide build-up.



Technical data

Main type	EV220B 15BD	EV220B 20BD	EV220B 25BD	EV220B 32BD	EV220B 40BD	EV220B 50BD
Time to open [ms] ¹⁾	40	40	300	1000	1500	5000
Time to close [ms] ¹⁾	350	1000	1000	2500	4000	10000

¹⁾ The times are indicative and apply to water. The exact times will depend on the pressure conditions.
 Closing times can be changed by replacement of the equalizing orifice.

Installation	Optional, but vertical solenoid system is recommended.		
Max. test pressure	20 bar		
Viscosity	Max. 50 cSt		
Materials	Valve body:	Dezincification resistant brass (DZR)	CuZn36Pb2As / CZ132
	Armature:	Stainless steel	W.no. 1.4105 / AISI 430 FR
	Armature tube:	Stainless steel	W.no. 1.4306 / AISI 304 L
	Armature stop:	Stainless steel	W.no. 1.4105 / AISI 430 FR
	Springs	Stainless steel	W.no. 1.4310 / AISI 301
	Orifices	Stainless steel	W.no. 1.4404 / AISI 316L
	Valve seat	Stainless steel	W.no. 1.4404 / AISI 316L
	O-rings	EPDM	
	Valve plate	EPDM	
	Diaphragm	EPDM	