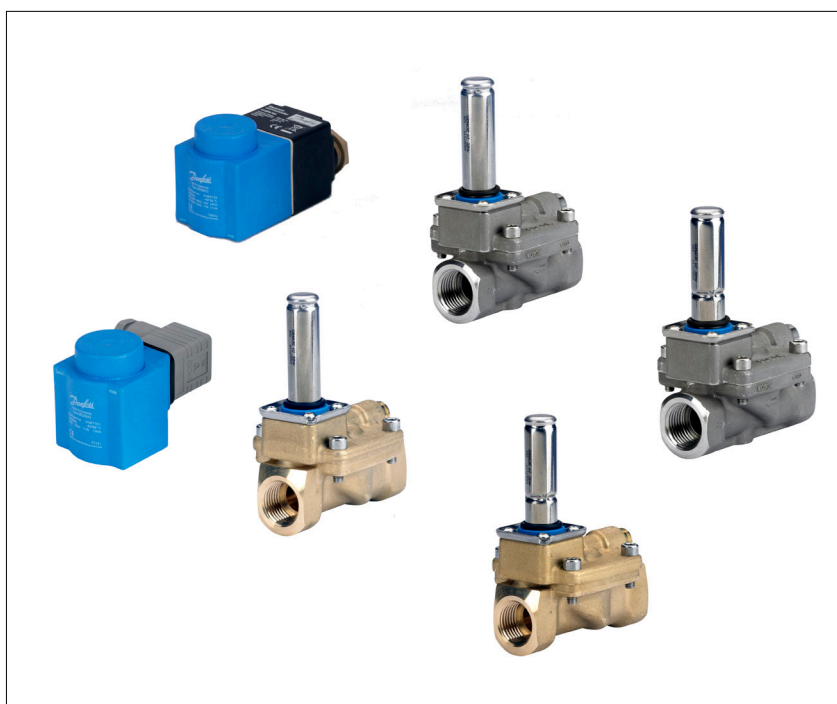


Data sheet

Solenoid valves for drinking water Types EV220BW and EV228BW



Solenoid valve range with drinking water approvals

- For water supply
- Houses and large apartments
 - Kitchen and bathrooms
- Commercial buildings
- Industrial buildings
- Zoning
- Laundry
- Diswashing
- Main inlet valves
- Machines and food processing

Features and versions

- Clip-on coil
- Flow range for water in Kv: 4 – 40 m³ / h
- Differential pressure: 0.3 – 10 bar
- Media temperature from 0 – 90 °C
- Ambient temperature: Up to 70 °C
- Coil enclosure: IP65
- Thread connections: From G 1/2 – G 2
- DN 15 – 50
- Water hammer damped
- Built-in filter
- Body material in ECO brass (Lead free < 0,1 %)
or Stainless steel
- New generation EPDM sealings recommended
for drinking water
- EV220BW 15-25 ECO brass NC/NO
- EV220BW 15-50 SS NC/NO
- EV228BW 15-25 ECO brass UN (Latching)
- EV228BW 15-50 SS UN (Latching)

Архангельск (8182)63-90-72
Астана (7172)727-132
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47 Казахстан (772)734-952-31 Таджикистан (992)427-82-92-69

<http://dnfklapan.nt-rt.ru/> || dsf@nt-rt.ru

Directives, approvals and certificates

General

- In accordance with
- Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8
 - Pressure Equipment Directive 2014/68/EU
-
- RoHS Directive 2011/65/EU

Drinking water approvals



- Valves are certified by RISE, notified body 1002. Valid in Denmark and Sweden. In accordance with Boverket Building Regulations (BBR 21, 2014-06-17) Certificate number SCO155-18



- Valves are certified by SINTEF. Valid in Norway. In accordance with NKB Product rules nr. 13, pkt. 3.2 – 3.6
-NT VVS 100, pkt. 6.4.2 & 6.4.8
-EN ISO 6509



- Inspection by DTI



- Valves are certified by Carso according to ACS guidelines, Circulaire 2002/571.



- Hygienic certificate B-BK-60210-1275/19. Issued by Polish National Institute of Public health (PZH).
- Wetted materials in accordance with 4MS (4 member states Germany, Holland, France and UK), DVGW, KTW and W270.

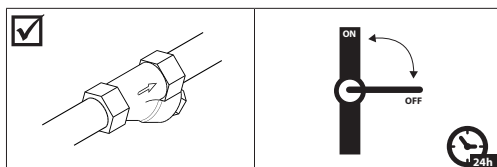
EV220BW 15-25
ECO brass valve body, NC



| ISO228/1 connection | Seal material | Orifice size | K _v - value | Media temperature | Differential pressure | Code no. |
|---------------------|---------------|--------------|------------------------|-------------------|-----------------------|----------|
| | | [mm] | [m ³ /h] | [°C] | [Bar] | |
| G ½ | EPDM | 15 | 4 | 0 – 90 | 0.3 – 10 | 132U1500 |
| G ¾ | EPDM | 20 | 8 | 0 – 90 | 0.3 – 10 | 132U2000 |
| G 1 | EPDM | 25 | 11 | 0 – 90 | 0.3 – 10 | 132U2500 |

¹⁾ It is recommended to use a filter in front of the valve.

²⁾ 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 | EV220BW 15 BE | EV220BW 20 BE | EV220BW 25 BE |
|----------------------------------|---------------|---------------|---------------|
| Time to open [ms] ¹⁾ | 40 | 40 | 300 |
| Time to close [ms] ¹⁾ | 350 | 1000 | 1000 |

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. working pressure (MWP) | 10 bar | | |
| Max. test pressure | 15 bar | | |
| Ambient temperature | BB DC | Up to 50 °C | |
| | BB AC | Up to 70 °C | |
| | EEC BE240CS | Up to 55 °C | |
| Viscosity | Max. 50 cSt | | |
| Materials | Valve body / cover | ECO brass | CW724R |
| | Armature | Stainless steel W.no. 1.4105 / AISI430FR | |
| | Armature tube | Stainless steel W.no. 1.4306 / AISI 304 L | |
| | Armature stop | Stainless steel W.no. 1.4105 / AISI430FR | |
| | Springs | Stainless steel W.no. 1.4310 / AISI 301 | |
| | Equalizing orifice | ECO brass | CW724R |
| | O-rings | EPDM | |
| | Valve plate | EPDM | |
| Diaphragm | EPDM | | |

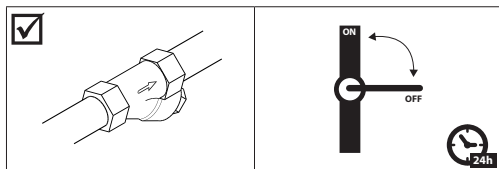
EV220BW 15-50
SS valve body NC



| ISO228/1 connection | Seal material | Orifice size | K _v - value | Media temperature | Differential pressure | Code no. |
|---------------------|---------------|--------------|------------------------|-------------------|-----------------------|----------|
| | | [mm] | [m ³ /h] | [°C] | [Bar] | |
| G 1/2 | EPDM | 15 | 4 | 0 – 90 | 0,3 – 10 | 132U1580 |
| G 3/4 | EPDM | 20 | 8 | 0 – 90 | 0,3 – 10 | 132U2080 |
| G 1 | EPDM | 25 | 11 | 0 – 90 | 0,3 – 10 | 132U2580 |
| G1 1/4 | EPDM | 32 | 18 | 0 – 90 | 0,3 – 10 | 132U3280 |
| G1 1/2 | EPDM | 40 | 24 | 0 – 90 | 0,3 – 10 | 132U4080 |
| G 2 | EPDM | 50 | 40 | 0 – 90 | 0,3 – 10 | 132U5080 |

¹⁾ It is recommended to use a filter in front of the valve.

²⁾ 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.



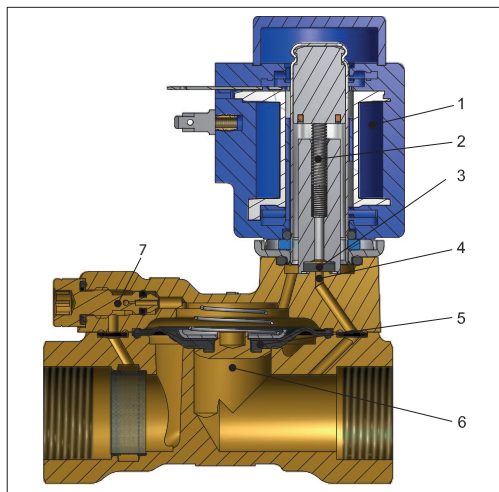
Technical data

| Main Type | EV220BW | EV220BW | EV220BW | EV220BW | EV220BW | EV220BW |
|----------------------------------|---------|---------|---------|---------|---------|---------|
| 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. working pressure (MWP) | 10 bar | | |
| Max. test pressure | 15 bar | | |
| Ambient temperature | BB DC | Up to 50 °C | |
| | BB AC | Up to 70 °C | |
| | EEC BE240CS | Up to 55 °C | |
| Viscosity | Max. 50 cSt | | |
| Materials | Valve body / cover | Stainless Steel | W. no. 1.4404 / AISI316L |
| | 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 |
| | Equalizing orifice | Stainless steel | W. no. 1.4435 / AISI 316L |
| | O-rings | EPDM | |
| | Valve plate | EPDM | |
| Diaphragm | EPDM | | |

Function, NC



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

Coil voltage disconnected (closed):

When the voltage is disconnected, the valve plate (3) is pressed down against the pilot orifice (4) by the armature spring (2). The pressure across the diaphragm (5) is built up via the equalizing orifice (7). The diaphragm closes the main orifice (6) as soon as the pressure across the diaphragm 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 (4) is opened. As the pilot orifice is larger than the equalizing orifice (7), the pressure across the diaphragm (5) drops and therefore it is lifted clear of the main orifice (6). 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.

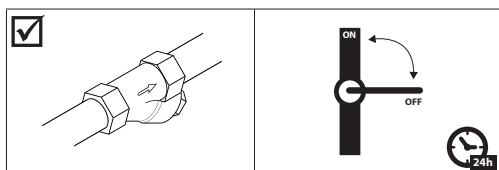
EV220BW 15-25
ECO brass valve body NO



| ISO228/1 connection | Seal material | Orifice size | K _v - value | Media temperature | Differential pressure | Code no. |
|---------------------|---------------|--------------|------------------------|-------------------|-----------------------|-----------------|
| | | [mm] | [m ³ /h] | [°C] | [Bar] | |
| G ½ | EPDM | 15 | 4 | 0 – 90 | 0.3 – 10 | 132U1501 |
| G ¾ | EPDM | 20 | 8 | 0 – 90 | 0.3 – 10 | 132U2001 |
| G 1 | EPDM | 25 | 11 | 0 – 90 | 0.3 – 10 | 132U2501 |

¹⁾ It is recommended to use a filter in front of the valve.

²⁾ 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 | EV220BW 15 BE | EV220BW 20 BE | EV220BW 25 BE |
|----------------------------------|---------------|---------------|---------------|
| Time to open [ms] ¹⁾ | 40 | 40 | 300 |
| Time to close [ms] ¹⁾ | 350 | 1000 | 1000 |

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. working pressure (MWP) | 10 bar | | |
| Max. test pressure | 15 bar | | |
| Ambient temperature | BB DC | Up to 50 °C | |
| | BB AC | Up to 70 °C | |
| | EEC BE240CS | Up to 55 °C | |
| Viscosity | Max. 50 cSt | | |
| Materials | Valve body / cover | ECO brass | CW724R |
| | 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 | |
| | Equalizing orifice | ECO brass | CW724R |
| | O-rings | EPDM | |
| | Valve plate | EPDM | |
| Diaphragm | EPDM | | |

EV220BW 15-50
SS valve body NO

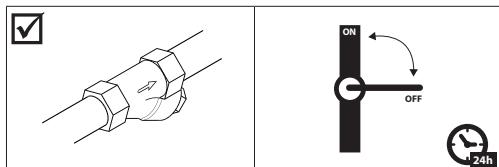


| ISO228/1 connection | Seal material | Orifice size | K _v - value | Media temperature | Differential pressure | Code no. |
|---------------------|---------------|--------------|------------------------|-------------------|-----------------------|----------|
| | | [mm] | [m ³ /h] | [°C] | [Bar] | |
| G 1/2 | EPDM | 15 | 4 | 0 – 90 | 0,3 – 10 | 132U1581 |
| G 3/4 | EPDM | 20 | 8 | 0 – 90 | 0,3 – 10 | 132U2081 |
| G 1 | EPDM | 25 | 11 | 0 – 90 | 0,3 – 10 | 132U2581 |
| G1 1/4 | EPDM | 32 | 18 | 0 – 90 | 0,3 – 10 | 132U3281 |
| G1 1/2 | EPDM | 40 | 24 | 0 – 90 | 0,3 – 10 | 132U4081 |
| G 2 | EPDM | 50 | 40 | 0 – 90 | 0,3 – 10 | 132U5081 |

¹⁾ It is recommended to use a filter in front of the valve.

²⁾ 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.



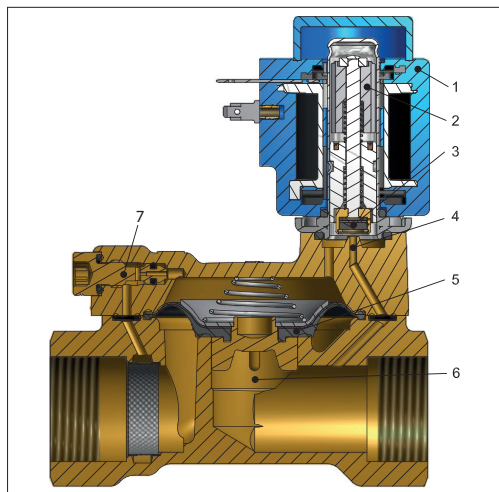
Technical data

| Main Type | EV220BW | EV220BW | EV220BW | EV220BW | EV220BW | EV220BW |
|----------------------------------|---------|---------|---------|---------|---------|---------|
| 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. working pressure (MWP) | 10 bar | | |
| Max. test pressure | 15 bar | | |
| Ambient temperature | BB DC | Up to 50 °C | |
| | BB AC | Up to 70 °C | |
| | EEC BE240CS | Up to 55 °C | |
| Viscosity | Max. 50 cSt | | |
| Materials | Valve body / cover | Stainless steel | W. no. 1.4404 / AISI 316L |
| | Armature | Stainless steel | W.no. 1.4105 / AISI430FR |
| | Armature tube | Stainless steel | W.no. 1.4306 / AISI 304 L |
| | Armature stop | Stainless steel | W.no. 1.4105 / AISI430FR |
| | Springs | Stainless steel | W.no. 1.4310 / AISI 301 |
| | Equalizing orifice | Stainless steel | W. no. 1.4435 AISI 316L |
| | O-rings | EPDM | |
| | Valve plate | EPDM | |
| | Diaphragm | EPDM | |

Function, NO



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

Coil voltage disconnected (closed):

When the voltage to the coil (1) is disconnected, the pilot orifice (4) is open. As the pilot orifice is larger than the equalizing orifice (7), the pressure across the diaphragm (5) drops and therefore it is lifted clear of the main orifice (6). The valve will be open for as long as the minimum differential pressure across the valve is maintained, and for as long as the voltage to the coil is disconnected.

Coil voltage connected (open):

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

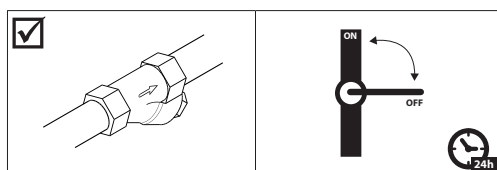
EV228BW 15-25
ECO brass valve body UN,
latching



| ISO228/1 connection | Seal material | Orifice size | K _v - value | Media temperature | Differential pressure | Code no. |
|---------------------|---------------|--------------|------------------------|-------------------|-----------------------|----------|
| | | [mm] | [m ³ /h] | [°C] | [Bar] | |
| G 1/2 | EPDM | 15 | 4 | 0 – 70 | 0.3 – 10 | 132U2400 |
| G 3/4 | EPDM | 20 | 8 | 0 – 70 | 0.3 – 10 | 132U2402 |
| G 1 | EPDM | 25 | 11 | 0 – 70 | 0.3 – 10 | 132U2404 |

¹⁾ It is recommended to use a filter in front of the valve.

²⁾ 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 | EV228BW | EV228B 20B | EV228B 25B |
|----------------------------------|---------|------------|------------|
| Time to open [ms] ¹⁾ | 40 | 40 | 300 |
| Time to close [ms] ¹⁾ | 350 | 1000 | 1000 |

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. working pressure (MWP) | 10 bar | | |
| Max. test pressure | 15 bar | | |
| Ambient temperature | Up to 50 °C | | |
| Viscosity | Max. 50 cSt | | |
| Materials | Valve body / cover | ECO brass | CW724R |
| | 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 |
| | Equalizing orifice | ECO brass | CW724R |
| | O-rings | EPDM | |
| | Valve plate | EPDM | |
| Diaphragm | EPDM | | |
| Switch power (on/off) 018F7396 (12V DC) | | | |

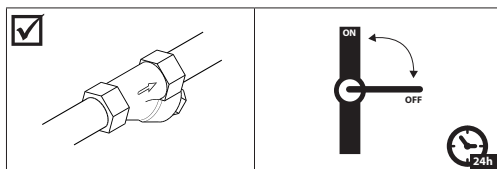
EV228BW 15-50
SS valve body UN, latching



| ISO228/1 connection | Seal material | Orifice size | K _v - value | Media temperature | Differential pressure | Code no. |
|---------------------|---------------|--------------|------------------------|-------------------|-----------------------|----------|
| | | [mm] | [m ³ /h] | [°C] | [Bar] | |
| G ½ | EPDM | 15 – 50 | 4 | 0 – 70 | 0.3 – 10 | 132U2401 |
| G ¾ | EPDM | 20 – 50 | 8 | 0 – 70 | 0.3 – 10 | 132U2403 |
| G 1 | EPDM | 25 – 50 | 11 | 0 – 70 | 0.3 – 10 | 132U2405 |
| G1 ¼ | EPDM | 32 – 50 | 18 | 0 – 70 | 0.3 – 10 | 132U2407 |
| G1 ½ | EPDM | 40 – 50 | 24 | 0 – 70 | 0.3 – 10 | 132U2409 |
| G 2 | EPDM | 50 – 50 | 40 | 0 – 70 | 0.3 – 10 | 132U2411 |

¹⁾ It is recommended to use a filter in front of the valve.

²⁾ 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.



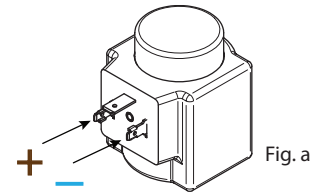
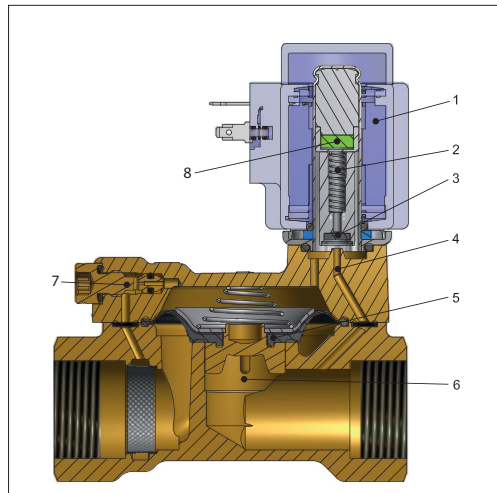
Technical data

| Main Type | EV220BW | EV220BW | EV220BW | EV220BW | EV220BW | EV220BW |
|----------------------------------|---------|---------|---------|---------|---------|---------|
| 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.

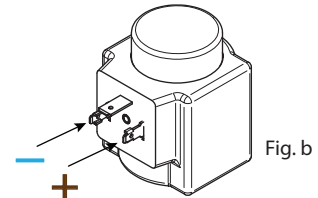
| Installation | Optional, but vertical solenoid system is recommended | | |
|-----------------------------|---|-----------------|----------------------------|
| Max. working pressure (MWP) | 10 bar | | |
| Max. test pressure | 15 bar | | |
| Ambient temperature | BB DC | Up to 50° C | |
| Viscosity | Max. 50 cSt | | |
| Materials | Valve body / cover | Stainless steel | w. no. 1.4404 / AISI 316L |
| | 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 |
| | Equalizing orifice | Stainless steel | W. no. 1.4435 / AISI 316L |
| | O-rings | EPDM | |
| | Valve plate | EPDM | |
| Diaphragm | EPDM | | |

Function UN, latching



When — (minus) is supplied to the left terminal pin and + (plus) to the right (see fig. a), the valve plate is pressed down against the pilot orifice (4) by the armature spring (2). The pressure across the diaphragm (5) is built up via the equalizing orifice (7). The diaphragm closes the main orifice (6) as soon as the pressure across the diaphragm is equivalent to the inlet pressure. The valve will stay closed, until the poles are switched (see fig. b).

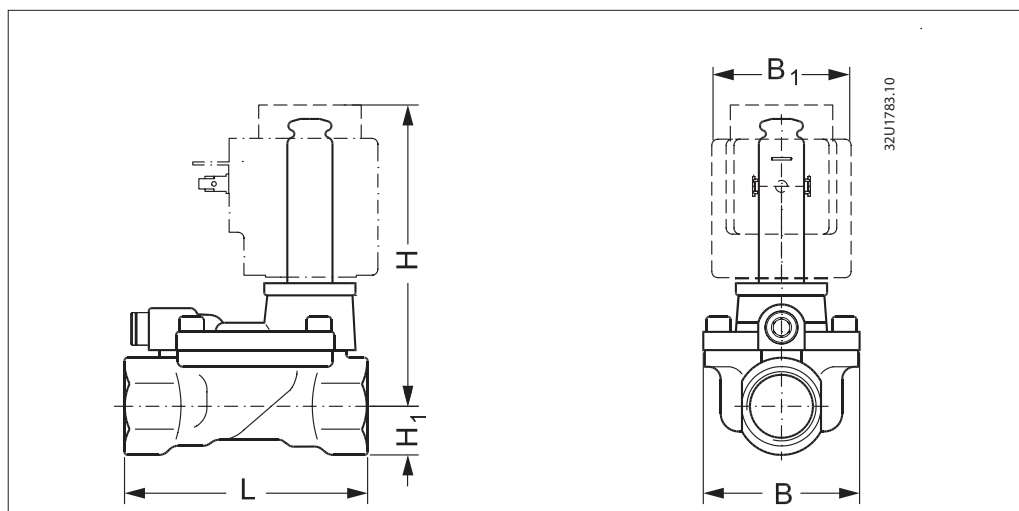
| Pos. no. | Description |
|----------|--------------------|
| 1 | Coil |
| 2 | Armature spring |
| 3 | Valve plate |
| 4 | Pilot orifice |
| 5 | Diaphragm |
| 6 | Main orifice |
| 7 | Equalizing orifice |
| 8 | Permanent magnet |



Switching poles

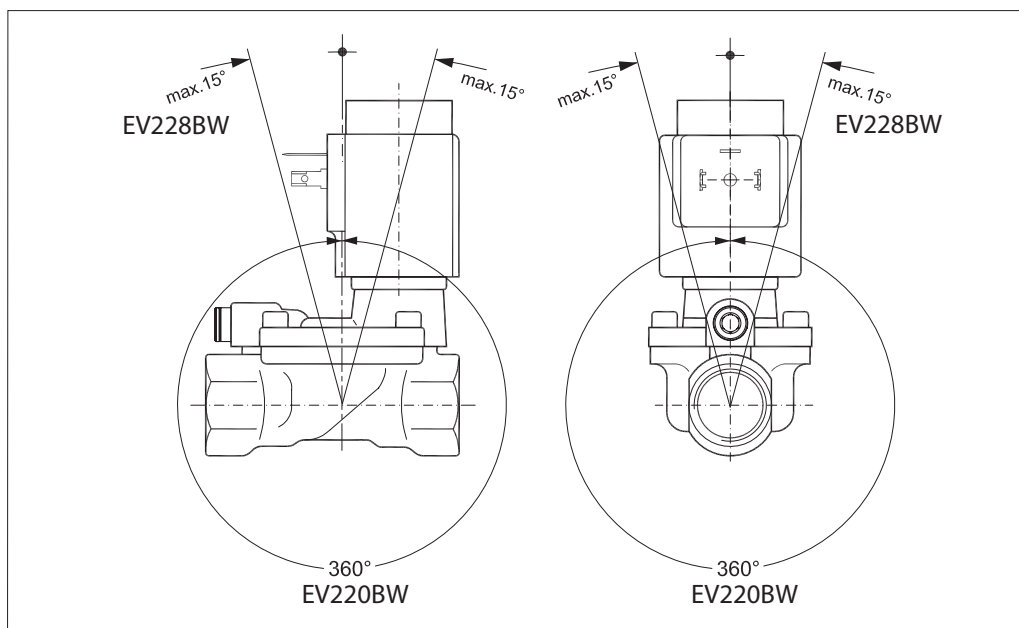
When + (plus) is supplied to the left terminal pin and — (minus) to the right (see fig. b), the pilot orifice (4) is opened. As the pilot orifice is larger than the equalizing orifice (7), the pressure across the diaphragm (5) drops and therefore it is lifted clear of the main orifice (6). The valve is now open for flow and will stay open as long as the minimum differential pressure across the valve is maintained, until the poles are switched back (see fig. a).

Dimensions and weight



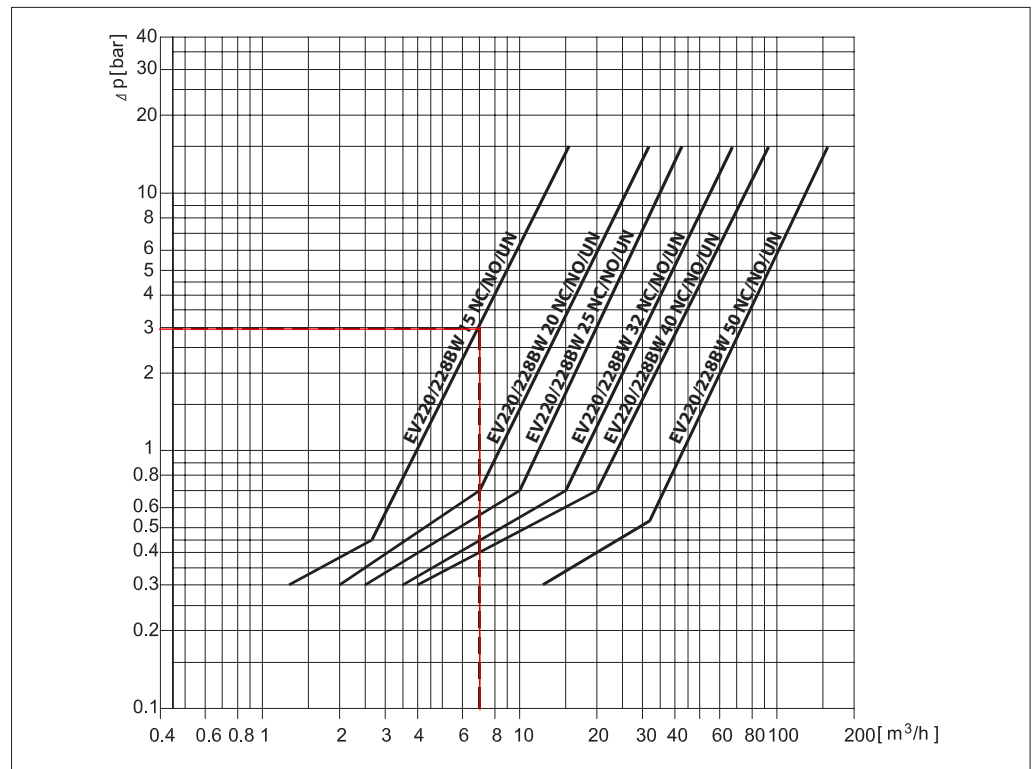
| Type | L | B | B ₁ [mm] / coil type | | | | H | H ₁ | Weight without coil |
|----------------|-------|-------|---------------------------------|---------|---------|----|------|----------------|---------------------|
| | [mm] | [mm] | BA | BB / BE | BG / BO | BP | [mm] | [mm] | [kg] |
| EV220/228BW 15 | 80.0 | 52.0 | 32 | 46 | 68 | 45 | 99 | 15.0 | 0.7 |
| EV220/228BW 20 | 90.0 | 58.0 | 32 | 46 | 68 | 45 | 103 | 18.0 | 0.9 |
| EV220/228BW 25 | 109.0 | 70.0 | 32 | 46 | 68 | 45 | 113 | 22.0 | 1.3 |
| EV220/228BW 32 | 120.0 | 82.0 | 32 | 46 | 68 | 45 | 120 | 27.0 | 2.0 |
| EV220/228BW 40 | 130.0 | 95.0 | 32 | 46 | 68 | 45 | 129 | 32.0 | 3.0 |
| EV220/228BW 50 | 162.0 | 113.0 | 32 | 46 | 68 | 45 | 135 | 37.0 | 4.8 |

Mounting angle



Capacity diagrams:

Example, water:
 Capacity for EV220BW 15B at
 differential pressure of 3 bar.
 Approx. 7 m³/h



**BB / BY,
High performance coils**



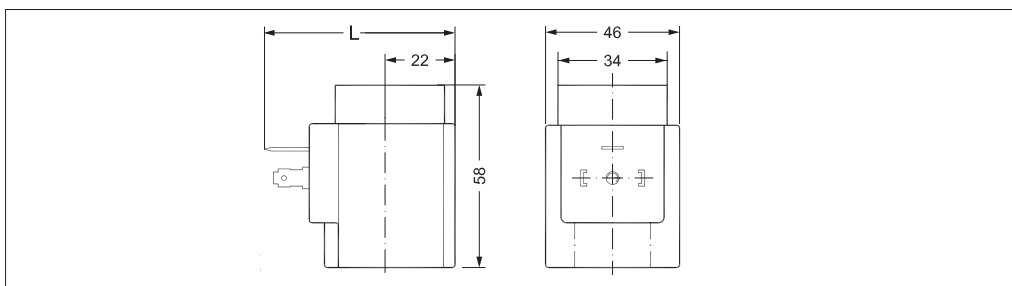
- Enclosure:
 - IP00 version with DIN 43650 A spade connectors
 - IP20 version with protective cap
 - IP65 version with mounted cable plug
- In accordance with:
 - RoHS Directive 2011/65/EU
 - Low Voltage Directive 2014/35/EU
 - EN60730-1
 - EN60730-2-8

| Type | Tambient | Supply voltage | Voltage variation | Frequency | Control | Power consumption | | Code no. |
|---------|----------|----------------|-------------------|-----------|-----------------------|-------------------|------|----------|
| | [°C] | [V] | | | | [W] | [VA] | |
| BB024AS | -40 – 80 | 24 | -15%, +10% | 50 | NO, NC | 11 | 19 | 018F7358 |
| BB230AS | -40 – 80 | 220 - 230 | -15%, +10% | 50 | NO, NC | 11 | 19 | 018F7351 |
| BB012DS | -40 – 50 | 12 | ±10% | DC | NC, NO, UN (Latching) | 13 | - | 018F7396 |
| BB024DS | -40 – 50 | 24 | ±10% | DC | NC, NO, UN (Latching) | 16 | - | 018F7397 |

Technical data

| | |
|-----------------------------|---|
| Design | In accordance with VDE 0580 |
| Insulation of coil windings | Class H according to IEC 85 |
| Connection | Spade connector in accordance with DIN 43650 form A |
| Enclosure, IEC 529 | IP00 with spade connector, IP20 with protective cap, IP65 with cable plug |
| Duty rating | Continuous |
| Plug type | Cable plug (042N0156) |

Dimensions and weight



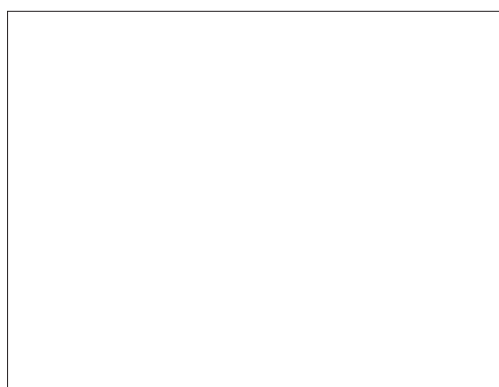
| L without cable plug | L with protective cap | L with cable plug | Weight |
|----------------------|-----------------------|-------------------|--------|
| [mm] | [mm] | [mm] | [kg] |
| 62 | 77 | 85 | 0.24 |

**Accessories:
Cable plug**



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

EEC and coil controller



EEC and coil controller for solenoid valves, type EV220B.

The EEC gives the coil a short over-boost, and controls the armature speed:

- Complete unit in one code no.
- Low power consumption (holding power: 4 W)
- Reduced noise during operation
- Increased MOPD compared to standard coils
- Increased lifetime of the solenoid valve
- Enclosure:
 - IP67 version
- In accordance with:
 - Low Voltage Directive 2014/35/EU
 - EN60730-1

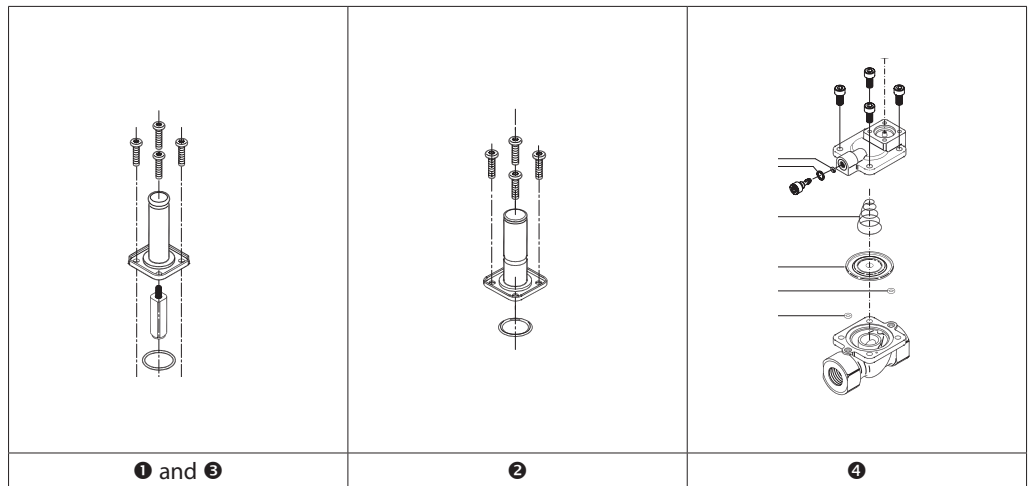
| Type | Tambient | Supply voltage | Voltage variation | Frequency | Control | Power consumption | Code no. |
|---------|----------|----------------|-------------------|-----------|---------|-------------------|----------|
| | [°C] | [V] | | [Hz] | | [W] | |
| BE240CS | -25 – 55 | 208 - 240 | ±10% | 60 | NC, NO | 4 | 018F6783 |
| | | 208 - 240 | ±10% | 50 | | 4 | |

**Spare part kits
DN 15 to DN50**

| Type | Actuator kit NC ❶ | Actuator kit NO ❷ | Actuator kit UN ❸ | Diaphragm kit NC and NO ❹ |
|---|-------------------|-------------------|-------------------|---------------------------|
| EV220BW DN 15 / G1/2 | 132U8080 | 132U8081 | 132U8082 | 132U8016 |
| EV220BW DN 20 / G3/4 | 132U8080 | 132U8081 | 132U8082 | 132U8021 |
| EV220BW DN 25 G1 | 132U8080 | 132U8081 | 132U8082 | 132U8026 |
| EV ²²⁰ BW DN ³² G 1 1/4 | 132U8080 | 132U8081 | 132U8082 | 132U8033 |
| EV220BW DN 40 G 1 1/2 | 132U8080 | 132U8081 | 132U8082 | 132U8041 |
| EV220BW DN 50 G 2 | 132U8080 | 132U8081 | 132U8082 | 132U8051 |

The kits contains

- ❶ NC armature tube, armature with spring, o-ring and 4 screws.
- ❷ NO unit, o-ring and 4 screws
- ❸ UN armature tube, armature, o-ring and 4 screws.
- ❹ Diaphragm, closing spring, 2 o-rings, equalising orifice + 2 o-rings and 4 screws



To get a complete actuator and diaphragm service 1), 2) or 3) and 4) should be ordered.
 Fx. For EV220BW 15 / G1/2 NC needed ordering are 132U8080 and 132U8016.

Архангельск (8182)63-90-72
 Астана (7172)727-132
 Астрахань (8512)99-46-04
 Барнаул (3852)73-04-60
 Белгород (4722)40-23-64
 Брянск (4832)59-03-52
 Владивосток (423)249-28-31
 Волгоград (844)278-03-48
 Вологда (8172)26-41-59
 Воронеж (473)204-51-73
 Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
 Ижевск (3412)26-03-58
 Казань (843)206-01-48
 Калининград (4012)72-03-81
 Калуга (4842)92-23-67
 Кемерово (3842)65-04-62
 Киров (8332)68-02-04
 Краснодар (861)203-40-90
 Красноярск (391)204-63-61
 Курск (4712)77-13-04
 Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
 Москва (495)268-04-70
 Мурманск (8152)59-64-93
 Набережные Челны (8552)20-53-41
 Нижний Новгород (831)429-08-12
 Новокузнецк (3843)20-46-81
 Новосибирск (383)227-86-73
 Омск (3812)21-46-40
 Орел (4862)44-53-42
 Оренбург (3532)37-68-04
 Пенза (8412)22-31-16

Пермь (342)205-81-47
 Ростов-на-Дону (863)308-18-15
 Рязань (4912)46-61-64
 Самара (846)206-03-16
 Санкт-Петербург (812)309-46-40
 Саратов (845)249-38-78
 Севастополь (8692)22-31-93
 Симферополь (3652)67-13-56
 Смоленск (4812)29-41-54
 Сочи (862)225-72-31
 Ставрополь (8652)20-65-13

Сургут (3462)77-98-35
 Тверь (4822)63-31-35
 Томск (3822)98-41-53
 Тула (4872)74-02-29
 Тюмень (3452)66-21-18
 Ульяновск (8422)24-23-59
 Уфа (347)229-48-12
 Хабаровск (4212)92-98-04
 Челябинск (351)202-03-61
 Череповец (8202)49-02-64
 Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47 Казakhstan (772)734-952-31 Таджикистан (992)427-82-92-69