

Solenoid valves

2/2-way direct-operated

Type EV210B





De-energized closed

Type EV210B NC for neutral liquids and gases DN 1.5 - 25 B

G 1/2 - G

#### **Features**



- For robust industrial application, such as control and dosage
- For water, oil, compressed air and similar neutral media
- Kv-value up to 8.0 m³/h
- Differential pressure: Up to 30 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +80°C
- Coil enclosure: Up to IP 67
- Thread connections: From G <sup>1</sup>/<sub>s</sub> to G 1
- Also available with NPT thread. Please contact Danfoss.

#### **Technical data**

| Туре                | EV210B    | EV210B   | EV210B | EV210B                                  | EV210B      | EV210B | EV210B |  |  |  |
|---------------------|-----------|--|--------|---|-------------|--------|--------|--|--|--|
|                     | 1.5-2 B   | 3-4.5 B  | 6 B    | 8-10 B                                  | 15 B        | 20 B   | 25 B   |  |  |  |
| Installation        | Optional  | Optional, but vertical solenoid system is recommended (see PT.600  |        |   |             |        |        |  |  |  |
| Pressure range      | 0 - 30 ba | ) - 30 bar   |        |   |             |        |        |  |  |  |
| Max. test pressure  | 50 bar    | 50 bar   | 50 bar | 50 bar                                  | 12 bar      | 12 bar | 12 bar |  |  |  |
| Time to open        | 10 ms     | 20 ms  | 20 ms  | 20 ms                                   | 30 ms       | 40 ms  | 40 ms  |  |  |  |
| Time to close       | 20 ms     | 20 ms  | 20 ms  | 30 ms                                   | 50 ms       | 50 ms  | 70 ms  |  |  |  |
| Ambient temperature | Max. +80  | Max. +80°C (depending on coil type, see data for the coil selected |        |   |             |        |        |  |  |  |
| Medium temperature  | See spe   | cific valve d  | ata    |   |             |        |        |  |  |  |
| Viscosity           | max. 50   | cSt  |        |   |             |        |        |  |  |  |
| Materials           | Valve bo  | dy:  |        | Brass                                   | W.no. 2.04  | 402    |        |  |  |  |
| Armature:           | Stainless | steel:   |        | W.no. 1.4                               | 1105/AISI 4 | 30FR   |        |  |  |  |
|                     | Armature  | tube:  |        | Stainless steel W.no. 1.4306/AISI 304L  |             |        |        |  |  |  |
|                     | Armature  | stop:  |        | Stainless steel W.no. 1.4105/AISI 430FR |             |        |        |  |  |  |
|                     | Springs:  |  |        | Stainless steel W.no. 1.4310/AISI 301   |             |        |        |  |  |  |
|                     | Seal mat  | erial:   |        | See specific valve data                 |             |        |        |  |  |  |

<sup>1)</sup> The times are indicative and apply to water.

### **Coil options**



Type: BD Type: BA 15 W ac 9 W ac 15 W dc



Type: BB 10 W ac 18 W dc



Type: BE (IP67) 10 W ac 18 W dc



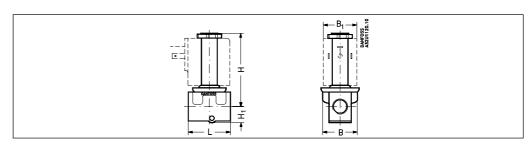
12 W ac

20 W dc

Danfoss also offers hum-free coils for noise sensitive applications and EEx m II T4 coils for use in explosion risk areas

See DKACV.PD.600.A

## **Dimensions and weight**



| Tuna          | L    | В    |                    | B₁ [mm]            |                 | H <sub>1</sub> | Н     | Weight without |
|---------------|------|------|--------------------|--------------------|-----------------|----------------|-------|----------------|
| Туре          | [mm] | [mm] | Coil type<br>BA/BD | Coil type<br>BB/BE | Coil type<br>BG | [mm]           | [mm]  | coil<br>[kg]   |
| EV210B 1.5/2B | 35.0 | 34.0 | 32                 | 46                 | 66              | 12.0           | 70.0  | 0.15           |
| EV210B 3/4.5B | 38.0 | 34.0 | 32                 | 46                 | 66              | 13.0           | 71.0  | 0.20           |
| EV210B 6B     | 45.5 | 43.5 | 32                 | 46                 | 66              | 13.0           | 74.0  | 0.22           |
| EV210B 8/10B  | 49.0 | 48.0 | 32                 | 46                 | 66              | 13.0           | 77.0  | 0.29           |
| EV210B 15B    | 58.0 | 53.0 | 32                 | 46                 | 66              | 15.0           | 80.0  | 0.45           |
| EV210B 20B    | 90.0 | 58.0 | 32                 | 46                 | 66              | 23.0           | 100.0 | 1.10           |
| EV210B 25B    | 90.0 | 58.0 | 32                 | 46                 | 66              | 23.0           | 100.0 | 1.10           |

The exact times will depend on the pressure conditions.



 $G^{1}/_{8}$  - G1

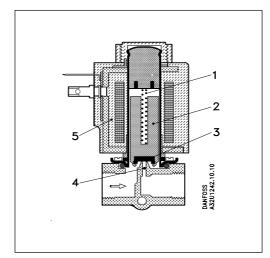
Type EV210B NC for neutral liquids and gases DN 1.5 - 25 B

De-energized closed



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#### **Function**



When the voltage is disconnected, the armature (2) with the valve plates (3) is pressed down against the valve orifice (4) by the clos-

Coil voltage disconnected (closed):

ing spring (1) and the medium's 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 (5), the armature (2) with the valve plates (3) is lifted clear of the valve orifice (4).
The valve is now open for unimpeded flow

and will be open for as long as there is voltage to the coil.

- 2. Armature
- 3. Valve plate
- 4. Valve orifice 5. Coil





De-energized closed

Type EV210B NC for neutral liquids and gases DN 1.5 - 25 B

G 1/2 - G

## **EV210B** NC versions for AC and DC: Brass bodies

| Conn:                         | Seal         | Κv           | DN           | Media        | temp           | Type des                     | signation                    | Code no.             | Permiss      | ible diff  | erentia      | l press      | ure (Ba      | r)/Coil      | type         |
|-------------------------------|--------------|--------------|--------------|--------------|----------------|------------------------------|------------------------------|----------------------|--------------|------------|--------------|--------------|--------------|--------------|--------------|
|                               | material     |              |              | Min.         | Max.           | Main type                    | Specification                | without<br>coil      | В            | Δ          | BD           | В            | в            | В            | iG           |
|                               |              | m³/h         | mm           | °C           | °C             |                              |                              | COII                 | 9W           | 15W        | 15W          | 10W          | 18W          | 12W          | 20W          |
|                               |              | ,            |              |              | L.             |                              |                              |                      | a.c.         | d.c.       | a.c.         | a.c.         | d.c.         | a.c.         | d.c.         |
| G <sup>1</sup> / <sub>8</sub> | EPDM*        | 0.08         | 1.5          | - 30         | + 120          | EV210B 1.5 B                 | G 18 E NC000                 | 032U5701             | 30.0         | 30.0       | 30.0         | 30.0         | 30.0         | 30.0         | 30.0         |
| 0                             | FKM          | 0.08         | 1.5          | - 10         | + 100          | EV210B 1.5 B                 | G 18 F NC000                 | 032U5702             | 30.0         | 30.0       | 30.0         | 30.0         | 30.0         | 30.0         | 30.0         |
| $G^{1}/_{8}$                  | EPDM*        | 0.15         | 2.0          | - 30         | + 120          | EV210B 2.0 B                 | G 18 E NC000                 | 032U5714             | 30.0         | 20.0       | 30.0         | 30.0         | 30.0         | 30.0         | 30.0         |
| Ü                             | FKM          | 0.15         | 2.0          | - 10         | + 100          | EV210B 2.0 B                 | G 18 F NC000                 | 032U5704             | 30.0         | 20.0       | 30.0         | 30.0         | 30.0         | 30.0         | 30.0         |
| G <sup>1</sup> / <sub>8</sub> | EPDM*<br>FKM | 0.30<br>0.30 | 3.0<br>3.0   | - 30<br>- 10 | + 120<br>+ 100 | EV210B 3.0 B<br>EV210B 3.0 B | G 18 E NC000<br>G 18 F NC000 | 032U5705<br>032U5706 | 15.0<br>15.0 | 9.0<br>9.0 | 24.0<br>24.0 | 20.0<br>20.0 | 13.0<br>13.0 | 30.0<br>30.0 | 25.0<br>25.0 |
| G <sup>1</sup> / <sub>4</sub> | EPDM*        | 0.15         | 2.0<br>2.0   | - 30         | + 120          | EV210B 2.0 B                 | G 14 E NC000                 | 032U5707             | 30.0         | 20.0       | 30.0         | 30.0<br>30.0 | 30.0         | 30.0         | 30.0         |
| 01/                           | FKM          | 0.15         |              | - 10<br>- 30 | +100           | EV210B 2.0 B                 | G 14 F NC000                 | 032U5708             | 30.0         | 20.0       | 30.0         | +            | 30.0         | 30.0         | 30.0         |
| $G^{1}/_{4}$                  | EPDM*        | 0.30         | 3.0          |              | + 120<br>+ 100 | EV210B 3.0 B                 | G 14 E NC000                 | 032U5709             | 15.0<br>15.0 | 9.0<br>9.0 | 24.0<br>24.0 | 20.0         | 13.0<br>13.0 | 30.0         | 25.0<br>25.0 |
| c1/                           | FKM<br>EPDM* | 0.55         | 4.5          | - 10<br>- 30 |                | EV210B 3.0 B                 | G 14 F NC000                 | 032U5710             | _            |            |              | +            | 4.5          | 13.0         | 9.0          |
| $G^{1}/_{4}$                  | FKM          | 0.55         |              | - 10         | + 120<br>+ 100 | EV210B 4.5 B<br>EV210B 4.5 B | G 14 E NC000<br>G 14 F NC000 | 032U3600<br>032U3601 | 8.0<br>8.0   | 3.5<br>3.5 | 12.0<br>12.0 | 10.0<br>10.0 | 4.5          | 13.0         | 9.0          |
| $G^{1}/_{4}$                  | EPDM*        | 0.70         | 6.0          | - 30         | + 120          | EV210B 4.3 B                 | G 14 E NC000                 | 032U3602             | 2.5          | 1.0        | 3.3          | 4.0          | 2.0          | 6            | 4.5          |
| G 7 <sub>4</sub>              | FKM          | 0.70         | 6.0          | - 10         | + 100          | EV210B 6.0 B                 | G 14 F NC000                 | 032U3603             | 2.5          | 1.0        | 3.3          | 4.0          | 2.0          | 6            | 4.5          |
| G <sup>3</sup> / <sub>8</sub> | EPDM*        | 0.55         | 4.5          | - 30         | + 120          | EV210B 4.5 B                 | G 38 E NC000                 | 032U3605             | 8.0          | 3.5        | 12.0         | 10.0         | 4.5          | 13.0         | 9.0          |
| 0.4                           | FKM          | 0.55         | 4.5          | - 10         | + 100          | EV210B 4.5 B                 | G 38 F NC000                 | 032U3606             | 8.0          | 3.5        | 12.0         | 10.0         | 4.5          | 13.0         | 9.0          |
| $G^3/_8$                      | EPDM         | 0.70         | 6.0          | - 30         | + 120          | EV210B 6.0 B                 | G 38 E NC000                 | 032U3607             | 2.5          | 1.0        | 3.3          | 4.0          | 2.0          | 6            | 4.5          |
| - 27                          | FKM          | 0.70         | 6.0          | - 10         | +100           | EV210B 6.0 B                 | G 38 F NC000                 | 032U3608             | 2.5          | 1.0        | 3.3          | 4.0          | 2.0          | 6            | 4.5          |
| $G^3/_8$                      | EPDM         | 1.00         | 8.0          | - 30         | + 120          | EV210B 8.0 B                 | G 38 E NC000                 | 032U3609             | 1.5          | 0.5        | 2.0          | 2.0          | 1.2          | 3            | 2.5          |
| 03/                           | FKM          | 1.00         | 8.0          | - 10         | + 100          | EV210B 8.0 B                 | G 38 F NC000                 | 032U3610             | 1.5          | 0.5        | 2.0          | 2.0          | 1.2          | 3            | 2.5          |
| $G^3/_8$                      | EPDM         | 1.50         | 10.0         | - 30         | + 120          | EV210B 10 B                  | G 38 E NC000                 | 032U3611             | 0.8          | 0.3        | 1.1          | 1.2          | 0.6          | 1.6          | 1.3          |
| 03/                           | FKM          | 1.50         | 10.0         | - 10         | + 100          | EV210B 10 B                  | G 38 F NC000                 | 032U3612             | 0.8          | 0.3        | 1.1          | 1.2          | 0.6          | 1.6          | 1.3          |
| G <sup>3</sup> / <sub>8</sub> | EPDM<br>FKM  | 2.50<br>2.50 | 15.0<br>15.0 | - 30<br>- 10 | + 120<br>+ 100 | EV210B 15 BD<br>EV210B 15 BD | G 38 E NC000<br>G 38 F NC000 | 032U3613<br>032U3614 | 0.25<br>0.25 |            | 0.4<br>0.4   | 0.3<br>0.3   | 0.15<br>0.15 | 0.45<br>0.45 | 0.4<br>0.4   |
| $G^{1}/_{2}$                  | EPDM<br>FKM  | 1.00         | 8.0<br>8.0   | - 30<br>- 10 | + 120<br>+ 100 | EV210B 8.0 B<br>EV210B 8.0 B | G 12 E NC000<br>G 12 F NC000 | 032U3615<br>032U3616 | 1.5<br>1.5   | 0.5<br>0.5 | 2.0<br>2.0   | 2.0          | 1.2<br>1.2   | 3            | 2.5<br>2.5   |
| G 1/2                         | EPDM         | 1.50         | 10.0         | - 30         | + 120          | EV210B 10 B                  | G 12 E NC000                 | 032U3617             | 0.8          | 0.3        | 1.1          | 1.2          | 0.6          | 1.6          | 1.3          |
| u , 2                         | FKM          | 1.50         | 10.0         | - 10         | + 100          | EV210B 10 B                  | G 12 F NC000                 | 032U3618             | 0.8          | 0.3        | 1.1          | 1.2          | 0.6          | 1.6          | 1.3          |
| G 1/2                         | EPDM         | 2.85         | 15.0         | - 30         | + 120          | EV210B 15 BD                 | G 12 E NC000                 | 032U3619             | 0.25         | -          | 0.4          | 0.30         | 0.15         | 0.45         | 0.4          |
| u , 2                         | FKM          | 2.85         | 15.0         | - 10         | + 100          | EV210B 15 BD                 | G 12 F NC000                 | 032U3620             | 0.25         | -          | 0.4          | 0.30         | 0.15         | 0.45         | 0.4          |
| G <sup>3</sup> / <sub>4</sub> | EPDM<br>FKM  | 4.5<br>4.5   | 20<br>20     | - 30<br>- 10 | + 120<br>+ 100 | EV210B 20 BD<br>EV210B 20 BD | G 34 E NC000<br>G 34 F NC000 | 032U3621<br>032U3622 | -            | -          | -            | 0.28<br>0.28 | 0.12<br>0.12 | 0.4<br>0.4   | 0.35<br>0.35 |
| G1                            | EPDM<br>FKM  | 8.0<br>8.0   | 25<br>25     | - 30<br>- 10 | + 120<br>+ 100 | EV210B 25 BD<br>EV210B 25 BD | G 1 E NC000<br>G 1 F NC000   | 032U3623<br>032U3624 | -            | -          | -            | 0.25<br>0.25 | 0.09         | 0.35<br>0.35 | 0.2<br>0.2   |

 $<sup>^*</sup>$  140°C / 3,6 bar low pressure steam, orifice DN 1.5 - 4.5

- 2/2 Flange version as option

- Low pressure steam: DN 1.5-3: Use coil type BB or BG

DN 4.5: Use coil type BG

- EPDM versions up to DN 3.0 are WRAS approved

## Ordering - coils

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

DKACV.PD.200.A4.02 © Danfoss A/S 08-2001

<sup>\*\*</sup>NBR available as option



G 1/8 - G1/4

Type EV210B NO for neutral liquids and gases DN 1.5 - 4.5 B



De-energized open

#### **Features**



- For robust industrial application, such as control and dosage
- For water, oil, compressed air and similar neutral media
- K, values up to 0.55 m³/h
- Differential pressure: Up to 30 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +80°C
- Coil enclosure: Up to IP 67
- Thread connections: G <sup>1</sup>/<sub>8</sub> and G <sup>1</sup>/<sub>4</sub>
   Also available with NPT thread. Please contact Danfoss.

#### **Technical data**

| Installation        | Optional, but vert   | Optional, but vertical solenoid system is recommended (see PT.600.A)  |  |  |  |  |  |
|---------------------|--|---|--|--|--|--|--|
| Pressure range      | 0 to 30 bar  | 0 to 30 bar   |  |  |  |  |  |
| Max. test pressure  | 50 bar   |   |  |  |  |  |  |
| Time to open        | 10-30 ms   |   |  |  |  |  |  |
| Time to close 1)    | 20 ms  |   |  |  |  |  |  |
| Ambient temperature | max. +80°C (depe   | ending on coil type, see data for the coil selected)  |  |  |  |  |  |
| Medium temperature  | See specific valve   | e data  |  |  |  |  |  |
| Viscosity           | Max. 50 cSt  |   |  |  |  |  |  |
| Materials           | Valve body:<br>Armature:<br>Armature tube:<br>Armature stop:<br>Springs:<br>Seal material: | Brass, W.no. 2.0402<br>Stainless steel, W.no.1.4105/AISI 430FR<br>Stainless steel, W.no.1.4306/AISI 304L<br>Stainless steel, W.no.1.4105/AISI 430FR<br>Stainless steel, W.no.1.4310/AISI 301<br>See specific valve data |  |  |  |  |  |

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

## Coil options





9 W ac

15 W dc



10 W ac

18 W dc



10 W ac

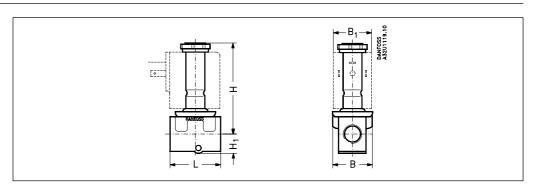
18 W dc



20 W dc

Danfoss also offers hum-free coils for noise sensative applications and EEx m II T4 coils for use in explosion risk areas - please see coil data sheet DKACV.PD.600.A

## **Dimensions and weight**



| Туре              | L    | В    |                    | B <sub>1</sub> [mm] |                 | H <sub>1</sub> | Н    | Weight without |
|-------------------|------|------|--------------------|---------------------|-----------------|----------------|------|----------------|
|                   | [mm] | [mm] | Coil type<br>BA/BD | Coil type<br>BB/BE  | Coil type<br>BG | [mm]           | [mm] | coil<br>[kg]   |
| EV210B 1.5/2 B NO | 35.0 | 34.0 | 32                 | 46                  | 66              | 12.0           | 70.0 | 0.15           |
| EV210B 3/4.5 B NO | 38.0 | 34.0 | 32                 | 46                  | 66              | 13.0           | 71.0 | 0.2            |

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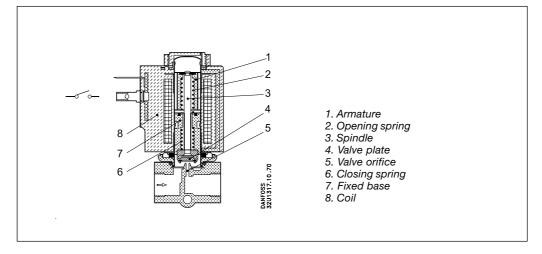
G 1/8 - G1/4

Type EV210B NO for neutral liquids and gases DN 1.5 - 4.5 B

De-energized open



#### **Function**



Coil voltage disconnected (open): When the voltage to the coil (8) is disconnected, the valve orifice (5) is open, the opening spring (2) lifting the spindle (3) with the valve plate (4) clear of the orifice. The valve will be open for as long as the supply voltage to the coil is disconnected.

Coil voltage connected (closed):
When voltage is applied to the coil, the magnetic field draws the valve's armature (1) down to touch the fixed base (7). The spindle (3) with the valve plate (4) is now pressed down against the valve orifice (5) by the closing spring (6). The valve will be closed for as long as there is voltage to the coil.

# **EV210B** NO versions for AC and DC current Brass bodies

| Conn:                         | Seal           | Κv   | DN  | Media | temp  | Type design  | Type designation |                 | Permissible differential pressure (Bar)/Coil t |             |             | type        |             |             |             |
|-------------------------------|----------------|------|-----|-------|-------|--------------|------------------|-----------------|--|-------------|-------------|-------------|-------------|-------------|-------------|
|                               | material<br>** |      |     | Min.  | Max.  | Main type    | Specification    | without<br>coil | В  | A           | BD          | В           | В           | Е           | 3G          |
|                               |                | m³/h | mm  | °C    | °C    |              |                  |                 | 9W<br>a.c.                                     | 15W<br>d.c. | 15W<br>a.c. | 10W<br>a.c. | 18W<br>d.c. | 12W<br>a.c. | 20W<br>d.c. |
| G1/8                          | EPDM           | 0.08 | 1,5 | - 30  | + 120 | EV210B 1,5 B | G 18 E NO000     | 032U3630        | 30   | 30          | 30          | 30          | 30          | 30          | 30          |
|                               | FKM            | 0.08 | 1,5 | - 10  | + 100 | EV210B 1,5 B | G 18 F NO000     | 032U3631        | 30   | 30          | 30          | 30          | 30          | 30          | 30          |
| G <sup>1</sup> / <sub>8</sub> | EPDM           | 0.15 | 2,0 | - 30  | + 120 | EV210B 2,0 B | G 18 E NO000     | 032U3632        | 12   | 12          | 12          | 12          | 12          | 12          | 12          |
| _                             | FKM            | 0.15 | 2,0 | - 10  | + 100 | EV210B 2,0 B | G 18 F NO000     | 032U3633        | 12   | 12          | 12          | 12          | 12          | 12          | 12          |
| G <sup>1</sup> / <sub>8</sub> | EPDM           | 0.30 | 3,0 | - 30  | + 120 | EV210B 3,0 B | G 18 E NO000     | 032U3634        | 5  | 5           | 5           | 5           | 5           | 5           | 5           |
|                               | FKM            | 0.30 | 3,0 | - 10  | + 100 | EV210B 3,0 B | G 18 F NO000     | 032U3635        | 5  | 5           | 5           | 5           | 5           | 5           | 5           |
|                               |                |      |     |       |       |              |                  |                 |  |             |             |             |             |             |             |
| G¹/₄                          | EPDM           | 0.15 | 2,0 | - 30  | + 120 | EV210B 2,0 B | G 14 E NO000     | 032U3636        | 12   | 12          | 12          | 12          | 12          | 12          | 12          |
|                               | FKM            | 0.15 | 2,0 | - 10  | + 100 | EV210B 2,0 B | G 14 F NO000     | 032U3637        | 12   | 12          | 12          | 12          | 12          | 12          | 12          |
| G¹/₄                          | EPDM           | 0.30 | 3,0 | - 30  | + 120 | EV210B 3,0 B | G 14 E NO000     | 032U3638        | 5  | 5           | 5           | 5           | 5           | 5           | 5           |
| 1                             | FKM            | 0.30 | 3,0 | - 10  | + 100 | EV210B 3,0 B | G 14 F NO000     | 032U3639        | 5  | 5           | 5           | 5           | 5           | 5           | 5           |
| $G^{1}/_{4}$                  | EPDM           | 0.55 | 4,5 | - 30  | + 120 | EV210B 4,5 B | G 14 E NO000     | 032U3640        | 2  | 2           | 2           | 2           | 2           | 2           | 2           |
|                               | FKM            | 0.55 | 4,5 | - 10  | + 100 | EV210B 4,5 B | G 14 F NO000     | 032U3641        | 2  | 2           | 2           | 2           | 2           | 2           | 2           |

<sup>\*\*</sup>NBR available as option

## Ordering - coils

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





De-energized closed

Type EV210B NC for aggressive liquids and gases DN 1.5 - 4.5 SS

G 1/8 - G 1/

#### **Features**



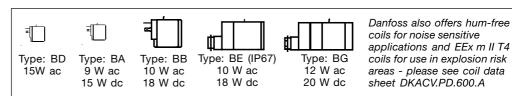
- For robust industrial application, such as control and dosage
- For neutral and aggressive liquids and gases. Contact Danfoss if you are in doubt about the valve's suitability for the medium in question.
- Kv: Up to 0.55 m<sup>3</sup>/h
- Differential pressure: Up to 30 bar
- Viscosity: Up to 50 cSt
- Ambient temperature: Up to +80°C
- Coil enclosure: Up to IP 67
- $\bullet$  Thread connections: From G  $^1\!/_{_{\! 8}}$  to G  $^1\!/_{_{\! 4}}$

#### **Technical data**

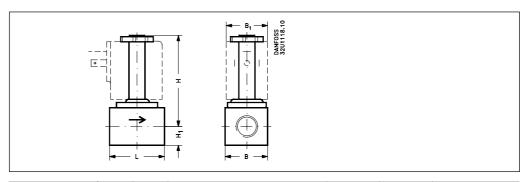
| Installation        | Optional, but ver | tical solenoid system is recommended (see PT.600.A)  |  |  |  |  |  |
|---------------------|-------------------|--|--|--|--|--|--|
| Pressure range      | 0 - 30 bar        | ) - 30 bar   |  |  |  |  |  |
| Max. test pressure  | 50 bar            | 50 bar   |  |  |  |  |  |
| Time to open 1)     | 10 ms - 30 ms     | 10 ms - 30 ms  |  |  |  |  |  |
| Time to close 1)    | 20 ms             |  |  |  |  |  |  |
| Ambient temperature | max. +80°C (depe  | ending on coil type, see data for the coil selected) |  |  |  |  |  |
| Medium temperature  | See specific valv | e data   |  |  |  |  |  |
| Viscosity           | max. 50 cSt       |  |  |  |  |  |  |
| Materials           | Valve body:       | Stainless steel, W.no. 1.4404/AISI 316L              |  |  |  |  |  |
|                     | Armature:         | Stainless steel, W.no. 1.4105/AISI 430FR             |  |  |  |  |  |
|                     | Armature tube:    | Stainless steel, W.no. 1.4306/AISI 304L              |  |  |  |  |  |
|                     | Armature stop:    | Stainless steel, W.no. 1.4105/AISI 430FR             |  |  |  |  |  |
|                     | Springs:          | Stainless steel, W.no. 1.4310/AISI 301               |  |  |  |  |  |
|                     | Seal material:    | See specific valve data                              |  |  |  |  |  |

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

## **Coil options**



#### **Dimensions and weight**



| _               | L    | В    |                    | B <sub>1</sub> [mm] |                 | H₁   | Н    | Weight without |
|-----------------|------|------|--------------------|---------------------|-----------------|------|------|----------------|
| Туре            | [mm] | [mm] | Coil type<br>BA/BD | Coil type<br>BB/BE  | Coil type<br>BG | [mm] | [mm] | coil<br>[kg]   |
| EV210B 1.5/2 SS | 35.0 | 34.0 | 32                 | 46                  | 66              | 12.0 | 70.0 | 0.15           |
| EV210B 3/4.5 SS | 38.0 | 34.0 | 32                 | 46                  | 66              | 13.0 | 71.0 | 0.2            |

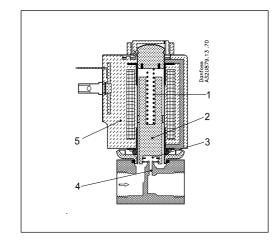
G 1/8 - G 1/4

Type EV210B NC for aggressive liquids and gases DN 1.5 - 4.5 SS

De-energized closed



#### **Function**



Coil voltage disconnected (closed):

When the voltage is disconnected, the armature (2) with the valve plate (3) is pressed down against the valve orifice (4) by the closing spring (1) and the medium's 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 (5), the armature (2) with the valve plate (3) is lifted clear of the valve orifice (4).

The valve is now open for unimpeded flow and will be open for as long as there is voltage to the coil.

#### 1. Closing spring 2. Armature

- 3. Valve plate
- 4. Valve orifice
- 5. Coil

#### **EV210B** NC versions for AC and DC current

#### Stainless steel bodies

| Conn. | Seal         | Kv           | DN         | Media       | Media temp Type designation |                                | า                            | Code no.             | . Permissible differential pressure (Bar)/Coil |              |              |              |              |              | уре          |
|-------|--------------|--------------|------------|-------------|-----------------------------|--------------------------------|------------------------------|----------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|
|       | material     |              |            | Min.        | Max.                        | Main type                      | Specification                | without<br>coil      | В  | A            | BD           | В            | В            | В            | iG.          |
|       |              | m³/h         | mm         | °C          | °C                          |                                |                              |                      | 9W<br>a.c.                                     | 15W<br>d.c.  | 15W<br>a.c.  | 10W<br>a.c.  | 18W<br>d.c.  | 12W<br>a.c.  | 20W<br>d.c.  |
| G1/8  | EPDM*<br>FKM | 0.08         | 1,5<br>1.5 | - 30<br>-10 | + 120<br>+ 100              | EV210B 1,5 SS<br>EV210B 1,5 SS | G 18 E NC000<br>G 18 F NC000 | 032U3645<br>032U3646 | 30.0<br>30.0                                   | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 |
| G1/8  | EPDM*<br>FKM | 0.15<br>0.15 | 2,0<br>2,0 | - 30<br>-10 | + 120<br>+ 100              | EV210B 2,0 SS<br>EV210B 2,0 SS | G 18 E NC000<br>G 18 F NC000 | 032U3647<br>032U3648 | 30.0<br>30.0                                   | 20.0<br>20.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 |
| G1/8  | EPDM*<br>FKM | 0.30<br>0.30 | 3,0<br>3,0 | - 30<br>-10 | + 120<br>+ 100              | EV210B 3,0 SS<br>EV210B 3,0 SS | G 18 E NC000<br>G 18 F NC000 | 032U3649<br>032U3650 | 15.0<br>15.0                                   | 9.0<br>9.0   | 24.0<br>24.0 | 20.0<br>20.0 | 13.0<br>13.0 | 30.0<br>30.0 | 25.0<br>25.0 |
| G1/4  | EPDM*<br>FKM | 0.15<br>0.15 | 2,0<br>2,0 | - 30<br>-10 | + 120<br>+ 100              | EV210B 2,0 SS<br>EV210B 2,0 SS | G 14 E NC000<br>G 14 F NC000 | 032U3651<br>032U3652 | 30.0<br>30.0                                   | 20.0<br>20.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 | 30.0<br>30.0 |
| G1/4  | EPDM*<br>FKM |              | 3,0<br>3,0 | - 30<br>-10 | + 120<br>+ 100              | EV210B 3,0 SS<br>EV210B 3,0 SS | G 14 E NC000<br>G 14 F NC000 | 032U3653<br>032U3654 | 15.0<br>15.0                                   | 9.0<br>9.0   | 24.0<br>24.0 | 20.0<br>20.0 | 13.0<br>13.0 | 30.0<br>30.0 | 25.0<br>25.0 |
| G1/4  | EPDM*<br>FKM | 0.55<br>0.55 | 4,5<br>4,5 | - 30<br>-10 | + 120<br>+ 100              | EV210B 4,5 SS<br>EV210B 4,5 SS | G 14 E NC000<br>G 14 F NC000 | 032U3655<br>032U3656 | 8.0<br>8.0                                     | 3.5<br>3.5   | 12.0<br>12.0 | 10.0<br>10.0 | 4.5<br>4.5   | 13.0<br>13.0 | 9.0<br>9.0   |

\* 140°C / 3,6 bar low pressure steam

DN 1.5-3: Use coil type BB og BG - Low pressure steam:

DN 4.5: Use coil type BG

- EPDM versions are WRAS approved

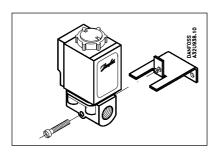
## Ordering - coils

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



for solenoid valves 2/2-way direct-operated Type EV210B

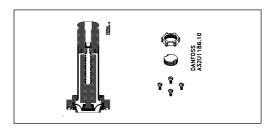
## Mounting fittings, NC/NO



For EV210B 1.5 B - 4.5 B in connection with synthetic tubes, pipes and similar.

| Description | Code no. |
|-------------|----------|
| Brackets    | 032U1040 |

## Optional Isolating diaphragm kit



The kit consists of assembled isolating unit, O-ring, 4 screws, locking button and nut for the coil. Suitable for orifice sizes up to DN 3 mm.

| Seal material | Code no. |
|---------------|----------|
| EPDM          | 042U1009 |
| FKM           | 042U1010 |

#### Power kit for EV210B

The power kit enables the EV210B valve to handle higher differential pressure. The kit can be used on valves up to  $G\frac{1}{2}$  connection and with a DN of max 10 mm.

Please contact Danfoss for further specifications.

| Seal material | Code no.* |
|---------------|-----------|
| EPDM          | 032U5275  |
| FKM           | 032U5276  |

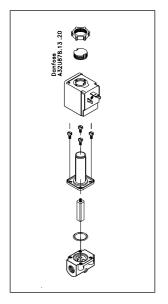
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\*Only for use on NC versions



for solenoid valves 2/2-way direct-operated Type EV210B

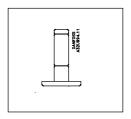
## Spare parts kit, NC



The spare parts kit comprises a locking button, nut for the coil, armature with valve plate and spring, and an O-ring.

| FKM                | EPDM     | Function |  |
|--------------------|----------|----------|--|
| EV210B 1.5/2/3/4.5 |          |          |  |
| 032U2003           | 032U6000 | NC       |  |
| EV210B 6/8/10      |          |          |  |
| 032U2011           | 032U2006 | NC       |  |
| EV210B 15          |          |          |  |
| 032U2012           | 032U2013 | NC       |  |
| EV210B 20          |          |          |  |
| 032U2014           | 032U2017 | NC       |  |
| EV210B 25          |          |          |  |
| 032U2018           | 032U2019 | NC       |  |

## Spare part kit, NO



| FKM                | EPDM     | Function |  |  |
|--------------------|----------|----------|--|--|
| EV210B 1.5/2/3/4.5 |          |          |  |  |
| 032U2004           | 032U2005 | NO       |  |  |

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