2/2-WAY PRESSURE OPERATED VALVE, DIRECT FORCE OPERATED, FLANGE DESIGN

**FDV2200**

**Description:**
- 2/2-way pressure operated seat valve
  - seat valve with plunger washer
  - direct force operated
  - body in gray iron, cast steel or stainless steel
  - flange connection EN1092-1 PN16 respectively PN40
  - optional installation position

**Application area:**
- viscosity 600mm²/s
- medium temperature -40°C tp +200°C (PTFE) respectively -10°C to +80°C (NBR)
- ambient temperature -10°C to +35°C
- operating pressure up to 40bar (stainless steel/cast steel) respectively 16bar (gray iron).
- control pressure 4 up to 10 bar
- for hot and cold water, oil and air, in stainless steel design also for aggressive media
- as special valve also for gaseous fuels according to gas appliance directive EWG 90/396
- control medium air and neutral liquids

**Explanation:**
During the installation please pay attention to the flow pattern (marking with arrow on the body). Optional flow pattern with optional available double-acting piston drive. Other sealings, operating pressures and control cylinder body on request.

As a special valve in gray iron with FKM for gaseous fuels valve group A, valve group 2 please request.

With aluminium cylinders (Type „xxZ“) water must not be used as control medium.

**Differing medium temperature** for optional sealings:
- EPDM, NBR and FKM -10°C upto +80°C

**Wear parts:**
- Valve disc
- Seat sealing
- Retaining disc
- Mounting nut
- Spindle
- Union nut
- V-Set of collars
- Thrust ring
- Spring
- O-Ring
- Wiper
- Countersunk screw
- Lip seal
- Sliding bush
- Grooved pin

**Options:**
- PV: Pilot valve GMV3197, GMV3164
- OF: Free of oil and grease
- DW: Actuator double-acting
- PS: Optional position indication (NO and double-acting)
- PS: Electrical position indication (limit switch)
- HA: Manual override
- VU: Vacuum design with soft sealing
- VU: Vacuum design, also for pressure
- Valve with oil break
- Valve with oil break, stroke limitation, protective hood

You find information about the appointment code under „Appointment details“. An overview of the complete material code is in the catalog at the beginning of the chapter of the respective product group.

*Depending on valve type, wear parts may vary.
Service-Set: valve disc, spindle, sealing set, spring
Sealing-Set: includes all sealings

![Diagram of 2/2-way pressure operated valve, direct force operated, flange design](image)
2/2-WAY PRESSURE OPERATED VALVE, DIRECT FORCE OPERATED, FLANGE DESIGN

FDV2200

* declared is the maximal pressure range at a control pressure of 6bar

**KV-Value:** The nominal flow of KV to VDV/EVE 2173 indicates the water amount in cubic metres per hour, at 100% opened armature, Δp=1 bar and at a water temperature from 5 to 30°C.

*** higher maximal operating pressure for bodies in stainless steel!

<table>
<thead>
<tr>
<th>Matchcode</th>
<th>Size</th>
<th>Operating pressure*</th>
<th>Measures [mm]</th>
<th>Weight [kg]</th>
<th>Kv-Value*** [m³/h]</th>
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Body cast steel / stainless steel (PN40)

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<td>350 400 220</td>
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</tr>
</tbody>
</table>

Option: DN125-DN150-DN200 in spheroidal cast iron available!
Functions:

closed in rest position (NC):

**Type1xx**: closing with the medium, single-acting. With liquids there can occur closing and opening strokes.

**Type3xx**: closing against the medium, single-acting. With liquids prevention of closing and opening strokes.

opened in rest position (NO):

**Type4xx**: closing against the medium, single-acting

optional flow pattern:

**Type5xx/Type6xx**: for optional flow pattern

Optional available:

The GMV3197 as 3/2-way-pilot valve, direct force operated, for control of the compressed air cylinder. If necessary for big nominal sizes we advise the GMV3164 for faster closing times.

You find detailed information in the product group „Solenoid valve“.

Appointment details:

1: Basistype: FDV2200

2: Connection size:
   - 52-60 (see chart)
   - 82-90 (ANSI-Flanges)
   - attached is the pressure stage:
     1: PN16
     3: PN40

3: Material:
   - 1. Body material
     - L=Gray iron
     - K=Cast steel
     - M= sheroidal cast iron
     - O=Stainless steel
   - 2. Spindle sealings and
   - 3. Seat sealings
     - E=EPDM
     - T=PTFE
     - B=NBR
     - V=FKM

4. Nominal size in 1/10mm (s. chart)

5: Type of the pressure cylinder (other types on request):
   - 1. Information about the function
     - 1=closing with medium, NC, single-acting
     - 3=closing against medium, NC, single-acting
     - 4=closing against medium, NO, single-acting
   - 2. Information about the cylinder diameter:
     - 2: Ø50
     - 4: Ø80
     - 5: Ø125
   - 3. Material of the cylinder
     - A=Brass (blank)
     - Z=Aluminium
     - O=Stainless steel

6: Options (see „Options“)

Demands on your application conditions that are not listed on the data sheet, can be requested!

The guide book and the maintenance guidelines, particularly the given safety instructions have to be paid attention to before the installation!