**Description:**

- 3/2-way pressure operated seat valve
- seat valve with plunger washer
- direct force operated
- body in gray iron
  (cast steel and stainless steel on request)
- flange connection EN1092-1 PN16
- optional installation position
- with a balancer cylinder from DN40

**Application area:**

- viscosityt 400mm²/s
- medium temperature -40°C to +200°C (PTFE) respec tively -10°C to +80°C (NBR)
- ambient temperature -10°C to +35°C
- operating pressure upto 16bar (see chart)
- control pressure 4 to 10 bar
- for hot and cold water, oil and air,
  in stainless steel design also for aggressive media
- control medium air and neutral liquids

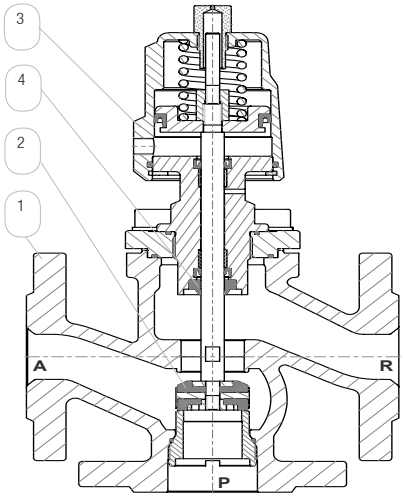
**Explanation:**

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 bodies on request.

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

The valve is delivered with a **balancer cylinder in the body from nominal size DN40 on.** Therefore please note the differing type information FDV7910.

Flanges also in other pressure stages or in ANSI-version are available on request.




| Pos. | Component | Gray iron type | | Optional material | |
|---|---|---|---|---|---|
| 1 | Body | Gray iron | L | Stainless steel | O |
| | | | | Cast steel | K |
| 2 | Seat sealing | NBR | B | PTFE | T |
| 3 | Cylinder | 50: Brass | A | Stainless steel | O |
| | | 80/125: Aluminium | Z | | |
| 4 | Spindle sealing | NBR | B | PTFE | T |

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.

**Differing medium temperature** for optional sealings:

- NBR upto max. 80°C

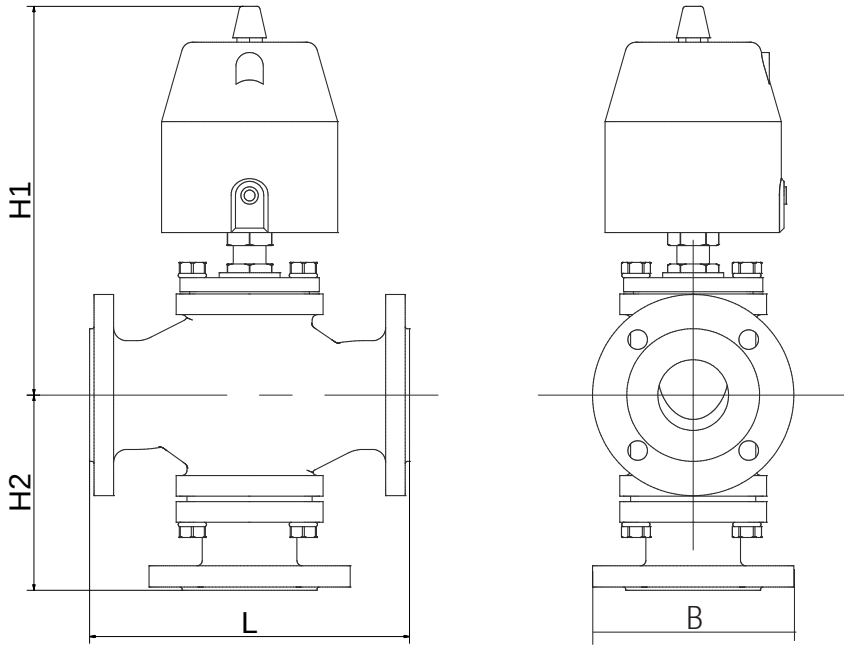
**Wear parts:**

- Piston
- Spindle
- Valve disk
- Seat sealing
- Disk
- Guide starwheel
- Spindle
- Union nut
- Piston complete
- Grooved ring
- Piston guide tape
- O-Ring
- Scraper
- Fastening pin
- Nut
- Spring

* Wear parts can vary depending on valve design.
Service set: incl. valve plate, spindle, sealing set and spring
Sealing set: contains all seals

**Options:**

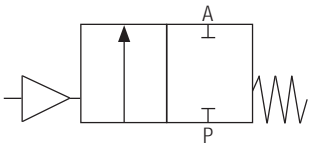
- PV: Pilot valve GMV3197 / GMV3164
- OF: Free of oil and grease
- DW: Actuator double-acting
- PS: Optional position indication (NO and double-acting)
- PS: Electrical position indication (limit switch)
- HA: Manual override
- VU: Vacuum design with soft sealing




| Matchcode | Size | | | Operating pressure* | | | | | | Measures [mm] | | | | Weight [kg] | Kv-Value** [m³/h] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mit Medium schließend | | | | | | | | | | | | |
| | | | | NC | | NO | | UNIVERSAL | | | | | | | | |
| | Con-nection | No-minal size [mm] | Control cylinder [mm] | Type | Pres-sure [bar] | Type | Pres-sure [bar] | Type | Pressure [bar] | L | H1 | H2 | B | | Kv1 | Kv2 |
| **Body gray iron (PN16)** | | | | | | | | | | | | | | | | |
| **FDV7900-52-1LBB-200-xxx** | DN15 | 20 | 50 | **12A** | 0-5 | **22A** | | **12A-UN** | 0-4 | 130 | 250 | 120 | 95 | 7,5 | 6,8 | |
| **FDV7900-52-1LBB-200-xxx** | DN15 | 20 | 80 | **14Z** | 0-16 | **24Z** | | **14Z-UN** | 0-12 | 130 | 280 | 120 | 95 | 8 | | |
| **FDV7900-53-1LBB-200-xxx** | DN20 | 20 | 50 | **12A** | 0-5 | **22A** | | **12A-UN** | 0-4 | 150 | 250 | 120 | 105 | 9 | 8,8 | |
| **FDV7900-53-1LBB-200-xxx** | DN20 | 20 | 80 | **14Z** | 0-16 | **24Z** | | **14Z-UN** | 0-12 | 150 | 280 | 120 | 105 | 9,5 | | |
| **FDV7900-54-1LBB-300-xxx** | DN25 | 30 | 80 | **14Z** | 0-14 | **24Z** | | **14Z-UN** | 0-8 | 160 | 300 | 140 | 115 | 11,5 | | |
| **FDV7900-54-1LBB-300-xxx** | DN25 | 30 | 125 | **15Z** | 0-16 | **25Z** | | **15Z-UN** | 0-16 | 160 | 360 | 140 | 115 | 13 | | |
| **FDV7900-55-1LBB-300-xxx** | DN32 | 30 | 80 | **14Z** | 0-9 | **24Z** | | **14Z-UN** | 0-8 | 180 | 300 | 140 | 140 | 14 | 18 | |
| **FDV7900-55-1LBB-300-xxx** | DN32 | 30 | 125 | **15Z** | 0-16 | **25Z** | | **15Z-UN** | 0-16 | 180 | 360 | 140 | 140 | 17 | | |
| **FDV7910-56-1LBB-500-xxx** | DN40 | 50 | 125 | **15Z** | 0-16 | **25Z** | | **15Z-UN** | 0-16 | 200 | 380 | 165 | 150 | 23 | 26 | |
| **FDV7910-57-1LBB-500-xxx** | DN50 | 50 | 125 | **15Z** | 0-16 | **25Z** | | **15Z-UN** | 0-16 | 230 | 380 | 165 | 165 | 25,5 | 38 | |
| **FDV7910-58-1LBB-650-xxx** | DN65 | 65 | 125 | **15Z** | 0-16 | **25Z** | | **15Z-UN** | 0-16 | 290 | 395 | 180 | 185 | 34 | 62 | |
| **FDV7910-59-1LBB-800-xxx** | DN80 | 80 | 125 | **15Z** | 0-10 | **25Z** | | **15Z-UN** | 0-10 | 310 | 420 | 195 | 200 | 47 | 89 | |
| **FDV7910-60-1LBB-1000-xxx** | DN100 | 100 | 125 | **15Z** | 0-10 | **25Z** | | **15Z-UN** | 0-10 | 350 | 440 | 225 | 220 | 60 | 125 | |
| **FDV7910-61-1LBB-1250-xxx** | DN125 | 125 | 125 | **15Z** | 0-8 | **25Z** | | **15Z-UN** | 0-8 | 400 | 470 | 260 | 250 | 75 | 240 | |
| **FDV7910-63-1LBB-1500-xxx** | DN150 | 150 | 125 | **15Z** | 0-8 | **25Z** | | **15Z-UN** | 0-8 | 480 | 495 | 300 | 285 | 110 | 370 | |

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

****KV-Value:**The nominal flow of KV to VDI/VDE 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.

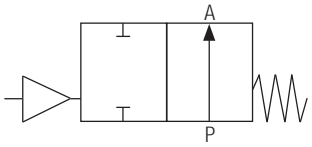



**Functions:**

**closed in rest position (NC):**

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

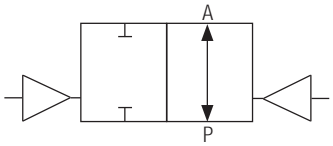
**Type3xx:** closing against the medium, single-acting. With liquids prevention of closing and opening strokes.




**opened in rest position (NO):**

**Type2xx:** closing with the medium, single-acting

**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“.

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| FDV79x0 | - | [XX] | [XXX] | [X] | - | [XXX] | - | [XX] |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2 | 3 | 4 | | 5 | | 6 |

**Appointment details:**

**1: Basistype:**

- FDV7900
- FDV7910 from DN40 for balancer cylinder

**2: Connection size:**

- 52-63 (see chart)
- 82-93 (for ANSI-version)
- attached is the pressure stage of the flange:
  -1: PN16

**3: Material:**

- 1. Body material
  L = Gray iron
  K = Cast steel (on request)
  O = Stainless steel (on request)
- 2. Spindle sealings and
  3. Seat sealings
  B = NBR
  T = PTFE

**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
  2 = closing with medium, NO, single-acting
  3 = closing against medium, NC, single-acting
- 2. Information about the cylinder diameter:
  1: Ø30
  2: Ø50
  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 maintenace guidelines, particularly the given safety instructions have to be paid attention to before the installation!