

**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) respectively -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

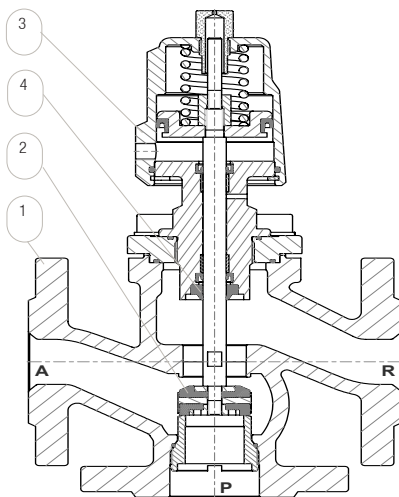
Explanation:

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

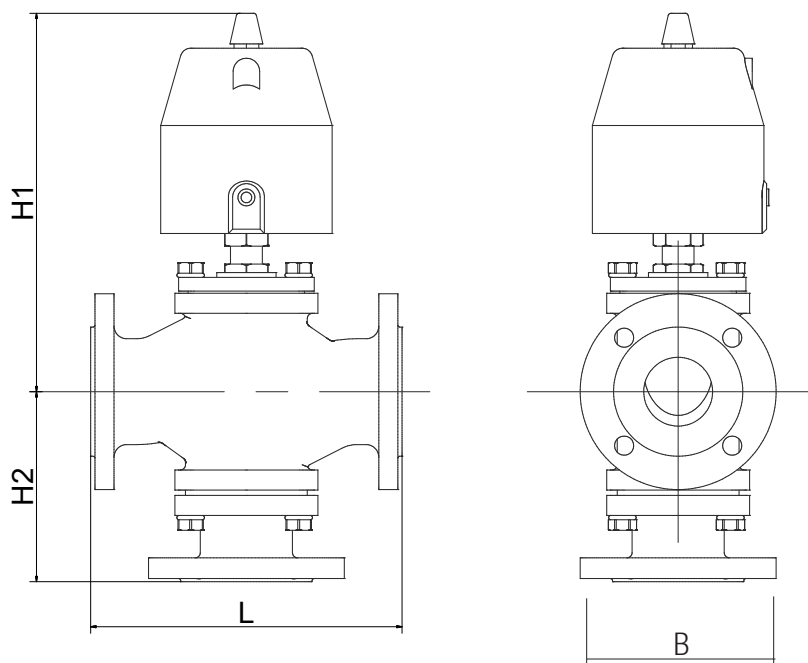
*Wear parts can vary depending on valve design.

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]
				closing with medium			UNIVERSAL								
	Con- nection	No- minal size [mm]	Control cylinder [mm]	NC		NO		UNIVERSAL		L	H1	H2	B		
				Type	Pres- sure [bar]	Type	Pres- sure [bar]	Type	Pressure [bar]						
Body gray iron (PN16)															
FDV7900-52-Mxx-200-xxx	DN15	20	50	12A	0-5	22A	0-5	12A-UN	0-4	130	205	65	95	4,5	6,8
FDV7900-52-Mxx-200-xxx	DN15	20	80	14Z	0-16	24Z	0-16	14Z-UN	0-12	130	226	65	95	4,8	-
FDV7900-53-Mxx-200-xxx	DN20	20	50	12A	0-5	22A	0-5	12A-UN	0-4	150	205	70	105	5,5	8,8
FDV7900-53-Mxx-200-xxx	DN20	20	80	14Z	0-16	24Z	0-16	14Z-UN	0-12	150	226	70	105	6,0	-
FDV7900-54-Mxx-300-xxx	DN25	30	50	12A	0-3	22A	0-3	12A-UN	0-3	160	196	75	115	6,7	11,5
FDV7900-54-Mxx-300-xxx	DN25	30	80	14Z	0-14	24Z	0-14	14Z-UN	0-8	160	230	75	115	7,0	-
FDV7900-54-Mxx-300-xxx	DN25	30	125	15Z	0-16	25Z	0-16	15Z-UN	0-16	160	315	75	115	10,0	-
FDV7900-55-Mxx-300-xxx	DN32	30	80	14Z	0-9	24Z	0-9	14Z-UN	0-8	180	255	75	140	10,0	18
FDV7900-55-Mxx-300-xxx	DN32	30	125	15Z	0-16	25Z	0-16	15Z-UN	0-16	180	340	75	140	12,5	-
FDV7910-56-Mxx-500-xxx	DN40	50	125	15Z	0-16	25Z	0-16	15Z-UN	0-16	200	360	90	150	16,5	26
FDV7910-57-Mxx-500-xxx	DN50	50	125	15Z	0-16	25Z	0-16	15Z-UN	0-16	230	370	100	165	18,5	38
FDV7910-58-Mxx-650-xxx	DN65	65	125	15Z	0-16	25Z	0-16	15Z-UN	0-16	290	390	120	185	26,5	62
FDV7910-59-Mxx-800-xxx	DN80	80	125	15Z	0-10	25Z	0-10	15Z-UN	0-10	310	415	130	200	34,0	89
FDV7910-60-Mxx-1000-xxx	DN100	100	125	15Z	0-10	25Z	0-10	15Z-UN	0-10	350	430	150	220	48,0	125
FDV7910-61-Mxx-1250-xxx	DN125	125	125	15Z	0-8	25Z	0-8	15Z-UN	0-8	400	470	200	270	77,0	240
FDV7910-63-Mxx-1500-xxx	DN150	150	125	15Z	0-8	25Z	0-8	15Z-UN	0-8	480	460	300	300	134,0	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, $\Delta p=1$ 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

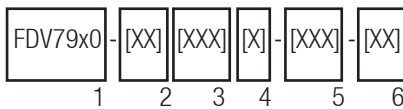
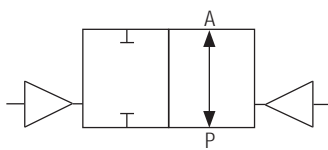
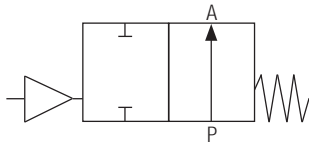
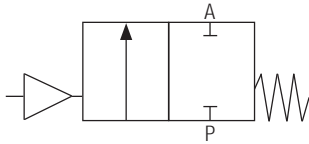
optional flow pattern:

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“.

**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 maintenance guidelines, particularly the given safety instructions have to be paid attention to before the installation!