

Butterfly valves PN 6, PN 10, PN 16 for shut-off functions

- in open and closed cold and hot water systems
- for switching several heating and cooling machines on and off
- for open heat exchangers


Overview of types

Type	k_{vs}^1 [m ³ /h]	DN [mm]
D625N	45	25
D632N	55	32
D640N	70	40
D650N	90	50
D665N	180	65
D680N	300	80
D6100N	580	100
D6125N	820	125
D6150N	1600	150
D6200N	2900	200
D6250N	4400	250
D6300N	7300	300
D6350N	10900	350

¹⁾ in accordance with VDE 2176

Technical data

Functional data	Media	Cold and warm water, water with max 50% volume of glycol
	Media temperature	-20 °C ... +120 °C (max. 130 °C during one hour)
	Rated pressure p_s	1600 kPa
	Flow rate k_{vs}	See «Overview of types»
	Leakage rate	A (tight) (EN 12266-1)
	Pipe connectors	DN 25 ... DN 200 Flange PN 6, PN 10, PN 16 DN 250 ... DN 350 Flange PN 16
	Angle of rotation	90° ↺
	Installation position	Standing to lying (in relation to the stem)
	Maintenance	Maintenance-free
	Materials	Fitting
Valve cone		Stainless steel
Stem		Stainless steel
Seat		EPDM
Stem seal		EPDM O-ring
Stem bearing:		RPTFE
Dimensions / weights	See «Dimensions and weights» on page 3	
Motorising	See complete range of water solutions	

Safety notes



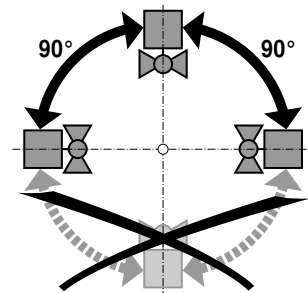
- The butterfly valve has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly.
- The butterfly valve does not contain any parts that can be replaced or repaired by the user.
- The butterfly valve may not be disposed of as household refuse. All locally valid regulations and requirements must be observed.
- When determining the flow rate characteristic of final controlling elements, the recognised directives must be observed.

Product features

- Mode of operation** The butterfly valve is opened or closed completely by an open-close rotary actuator. Continuous rotary actuators are controlled by a commercially available controller and move the valve cones into any position desired.
The valve cone made of stainless steel is pressed into the soft-sealing EPDM seat by a rotary movement and ensures leakage rate A (tight).
The flow rate losses are slight in open position and the k_{vs} value is high.
- Manual override** Manual throttling or shut-off can be carried out with a lever or a worm gear (see «Accessories»).

Installation instructions

- Recommended installation positions** The butterfly valves may be mounted either **vertically** or **horizontally**.
The butterfly valves may not be installed in a hanging position i.e. with the stem pointing downwards.



- Water quality requirements** The water quality requirements specified in VDI 2035 must be adhered to.

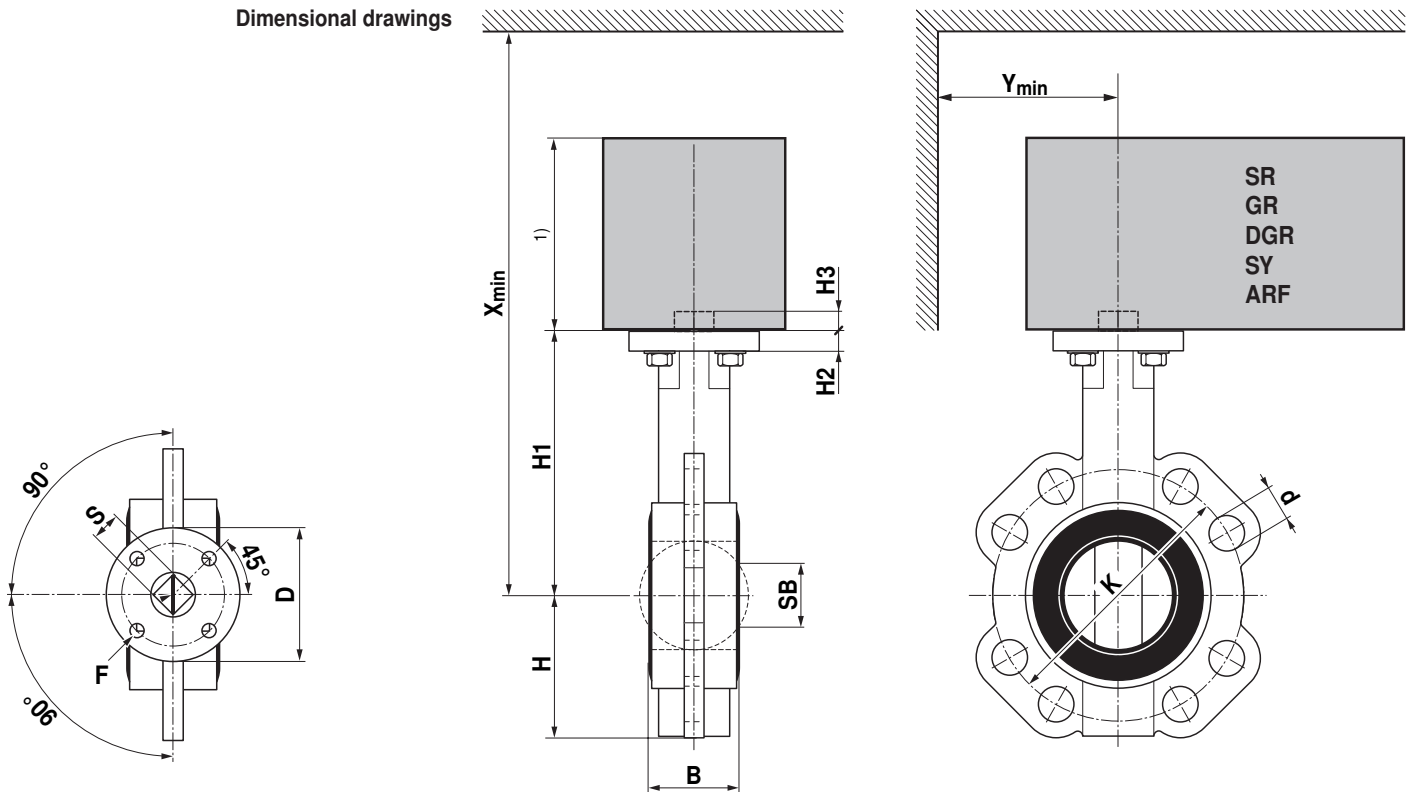
- Maintenance**
- Butterfly valves and rotary actuators are maintenance-free.
 - Before any kind of service work is carried out on actuator sets of this type, it is essential to isolate the rotary actuator from the power supply (by unplugging the power lead). Any pumps in the part of the piping system concerned must also be switched off and the appropriate isolating fittings closed (allow everything to cool down first if necessary and reduce the pressure in the system to atmospheric).
 - The system must not be returned to service until the butterfly valve and the rotary actuator have been properly reassembled in accordance with the instructions and the pipework has been refilled in the proper manner.

Accessories

	Description	
Mechanical accessories	Lever ZD6N-H100	for DN 25 ... DN 100
	Lever ZD6N-H150	for DN 125 ... DN 150
	Worm gear ZD6N-S200	for DN 200
	Worm gear ZD6N-S250	for DN 250

Dimensions [mm]

Dimensional drawings



DN [mm]	Mounting flange ²⁾					B [mm]	H [mm]	H1 [mm]	SB [mm]	PN 6		PN 10		PN 16		Weight [kg]
	D [mm]	F [mm]	S [mm]	H2 [mm]	H3 [mm]					K [mm]	d [mm]	K [mm]	d [mm]	K [mm]	d [mm]	
25	65	F05	14	10	13	32	48	86	0	75	4 x 11	85	4 x 14	85	4 x 14	1.0
32	65	F05	14	10	13	33	60	100	0	90	4 x 14	100	4 x 19	100	4 x 19	1.0
40	65	F05	14	10	13	33	68	119	26	100	4 x 14	110	4 x 19	110	4 x 19	1.4
50	65	F05	14	11	13	43	72	133	33	110	4 x 14	125	4 x 19	125	4 x 19	2.3
65	65	F05	14	11	13	46	81	147	48	130	4 x 14	145	4 x 19	145	4 x 19	2.8
80	65	F05	14	11	13	46	96	158	66	150	4 x 19	160	8 x 19	160	8 x 19	3.3
100	65	F05	14	11	13	52	106	170	91	170	4 x 19	180	8 x 19	180	8 x 19	4.4
125	90	F07	17	15	19	56	122	194	115	200	8 x 19	210	8 x 19	210	8 x 19	6.0
150	90	F07	17	15	19	56	140	202	142	225	8 x 19	240	8 x 23	240	8 x 23	7.3
200	90	F07	17	15	19	60	172	240	194	280	8 x 19	295	8 x 23	295	12 x 23	12.0
250	125	F10	22	15	24	68	206	268	245					355	12 x 28	18.7
300	125	F10	22	15	24	78	244	316	294					410	12 x 28	26.8
350	125	F10	22	15	24	78	267	361	328					470	16 x 28	39.2

DN [mm]	SR		GR		DGR		SY1		SY2 / SY3		SY4 / SY5		ARF	
	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]	X _{min} [mm]	Y _{min} [mm]
25	220	150					320	150					200	150
32	240	150					340	150					220	150
40	250	160					350	160					240	160
50	270	160					370	160					250	160
65	280	170					380	170					270	170
80	290	180	300	180			390	180					270	180
100	300	190	320	190			410	190						
125			340	210	400	210			530	210				
150					400	220			540	220				
200									580	250				
250											630	280		
300											680	310		
350											730	340		

¹⁾ The actuator dimensions can be found on the respective actuator data sheet

²⁾ in accordance with ISO 5211

Further documentations

- Complete overview «The complete range of water solutions»
- Data sheets actuators
- Installation instructions for butterfly valves and/or actuators, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance etc.)

