

### Flow rate values (KV values) depending on opening angle

DN [mm]	90°	80°	70°	60°	50°	40°	30°	25°
40	68	60	38	22	15	9	4	3
50	112	90	60	45	23	14	8	5
65	172	138	90	70	36	22	13	9
80	258	207	138	110	54	33	19	13
100	474	410	260	200	103	63	36	24
125	970	860	540	420	215	133	76	52
150	1'680	1'420	890	690	353	215	146	125
200	2'800	2'350	1'510	1'120	603	360	215	146
250	4'310	3'700	3'190	1'850	990	580	336	224
300	6'465	5'215	3'490	2'670	1'380	860	475	327
350	8'620	6'980	4'395	3'535	1'896	1'120	645	430
400	10'775	9'310	5'600	4'395	2'285	1'465	775	560
450	15'086	12'700	7'930	6'120	3'190	1'980	1'077	775
500	18'965	15'085	9'900	7'500	3'965	2'415	1'380	970
600	24'137	20'700	14'225	10'130	5'260	3'275	1'895	1'293
700	36'000	25'300	17'100	10'600	5'980	3'860	1'990	1'350
750	40'500	27'400	18'400	11'450	7'150	4'350	2'125	1'560
800	44'000	29'000	20'000	12'500	8'200	4'500	2'200	1'600
900	58'000	42'000	29'000	17'500	10'400	6'100	2'300	1'800
1000	80'500	59'200	37'500	23'000	13'500	8'700	3'800	2'500
1100	97'586	72'540	54'560	28'650	18'210	10'560	6'350	4'450
1200	110'500	82'000	61'500	35'500	22'600	12'500	7'800	5'400

The KV values are calculated in m<sup>3</sup>/h for water at a temperature of +20°C and a Δp of 1 bar.

The flow rates of the butterfly valves are used for pipe dimensioning and to determine the system pressure losses. Normally, on/off valves spend most of the time in the fully open position. Therefore, these valves must have the highest possible KV value in order to achieve a low pressure drop and thus increase the efficiency of the system and reduce energy costs. When used for flow control, the butterfly valves are suitable for opening angles between 20° and max. 75°.

To avoid cavitation, vibration, and noise, we recommend to not exceed the following maximum flow rates:

For liquids: max. 4 m/s for On/Off operation, max. 3 m/s for permanent regulation

For gases: 40 m/s for On/Off operation, max 30 m/s for Apermanent regulation

