



Application

for liquids, gases, vapours, aggressive fluids and low temperatures.

Weight and Dimensions

Type	PN	DN [mm]	Dimensions [mm]			Weight [kg]
			D	L	A	
526 620 ¹⁾ 526 630 ²⁾ 528 620 ¹⁾ 528 630 ²⁾	10 – 40	40	84	33	15	1.2
		50	92	43	5	1.7
		65	108	46	12	1.7
		80	128	64	16	3
		100	158	64	26	5
		125	180	70	36	7
		150	203	76	51	9
		200	263	89	71	16
526 520 ¹⁾ 528 530 ²⁾ 528 520 ¹⁾ 528 530 ²⁾	10 – 25	300	370	114	125	41
		350	432	127	146	48
		400	480	140	175	65
		450	530	152	188	94
		500	592	152	228	115
		600	692	178	282	192
		700	804	229	301	270
		800	911	241	374	402
		1000	1124	300	458	782
		526 822 ¹⁾ 526 832 ²⁾	40 – 100	65	125	46
80	138			64	16	4
100	158			64	26	5
125	188			70	39	9
150	222			76	52	11
200	275			89	73	23
250	335			114	93	45
300	394			114	131	57
350	435			127	151	75
400 ⁴⁾	490			140	177	98

Materials

Design	Part designation	Nominal size DN [mm]	Materials EN / ASME	Equivalent
Steel	Body	40 – 50	EN 1.4404	ASME SA 479M 316 L
		65 – 250	EN 1.4408 / CF 8M	–
		300 – 1000	EN 1.0619	ASTMA 216 WCC
	Flap	40 + 50	ASTM A487 Gr CA6NM	1.4435
65 – 1000		EN 1.4317	SS 2387	
Stainless steel	Body	40 – 50	EN 1.4404	ASME SA 479M 316 L
		65 – 1000	EN 1.4408 / CF 8M	–
	Flap	40 – 1000	EN 1.4470	SS 2324
High-temperature steel	Body	65 – 400	EN 1.7357	ASTMA 217 WC 6
	Flap	65 – 400	EN 1.7357	ASTMA 217 WC 6

¹⁾ without spring

²⁾ with spring

⁴⁾ DN 400 only for PN 40/63

Pressure/Temperature Ratings

Design	Type	PN	DN [mm]	Max. service pressure [bar] / related temperatures [°C] ³⁾										
				20	100	150	200	250	300	350	400	450	500	525
Steel down to –10 °C at nominal pressure	526 620/30	40	40 – 250	36.4	31.1	28.1	25.8	24.0	22.6	21.3	–	–	–	–
	526 520/30	25	300 – 1000	25.0	23.3	21.7	19.4	17.8	16.1	15.0	–	–	–	–
Stainless steel down to –40 °C at nominal pressure	528 620/30	40	40 – 250	36.4	31.1	28.1	25.8	24.0	–	–	–	–	–	–
	528 520/30	25	300 – 1000	22.8	21.1	19.6	18.3	17.2	–	–	–	–	–	–
High-temperature steel down to –10 °C at nominal pressure	526 822/32	100	65 – 400	100.0	100.0	100.0	100.0	97.0	91.0	84.0	80.0	75.0	61.0	38.0

³⁾ Max. Einsatztemperatur bei Ausführung mit Feder + 300 °C.

Pressure Drop Chart

The curves given in the chart are valid for water at 20 °C.

To read the pressure drop for other fluids the equivalent water volume flowrate must be calculated and used in the graph.

The values indicated in the chart are applicable to valves with horizontal flow. With vertical flow insignificant deviations occur only within the range of partial openings.

The chart and flow characteristics are available up to and including PN 40. Higher PN increase the zeta values and pressure drops at the same flowrates by approx. 20 %.

The k_{VS} values decrease accordingly.

$$\dot{V}_w = \dot{V} \cdot \sqrt{\frac{\rho}{1000}}$$

\dot{V}_w = Equivalent water volume flow
in [l/s] or [m³/h]

ρ = Density of fluid
(operating condition) in [kg/m³]

\dot{V} = Volume of fluid (operating
condition) in [l/s] or [m³/h]

