KEYSTONE SWING TYPE WAFER CHECK VALVE

FIGURE 85

Swing type wafer check valve with short face-to-face dimensions

FEATURES

- The compact wafer thin body provides extreme low weight.
- Minimum width of body allows installation between various flange standards.
- Seating O-ring placed in dove-tail groove of disc is easily replaceable.
- Low pressure shut-off.
- This check valve offers positive shut-off even at very small differential pressure, due to rotational axis location. Disc weight acts to fully close valve.

GENERAL APPLICATION

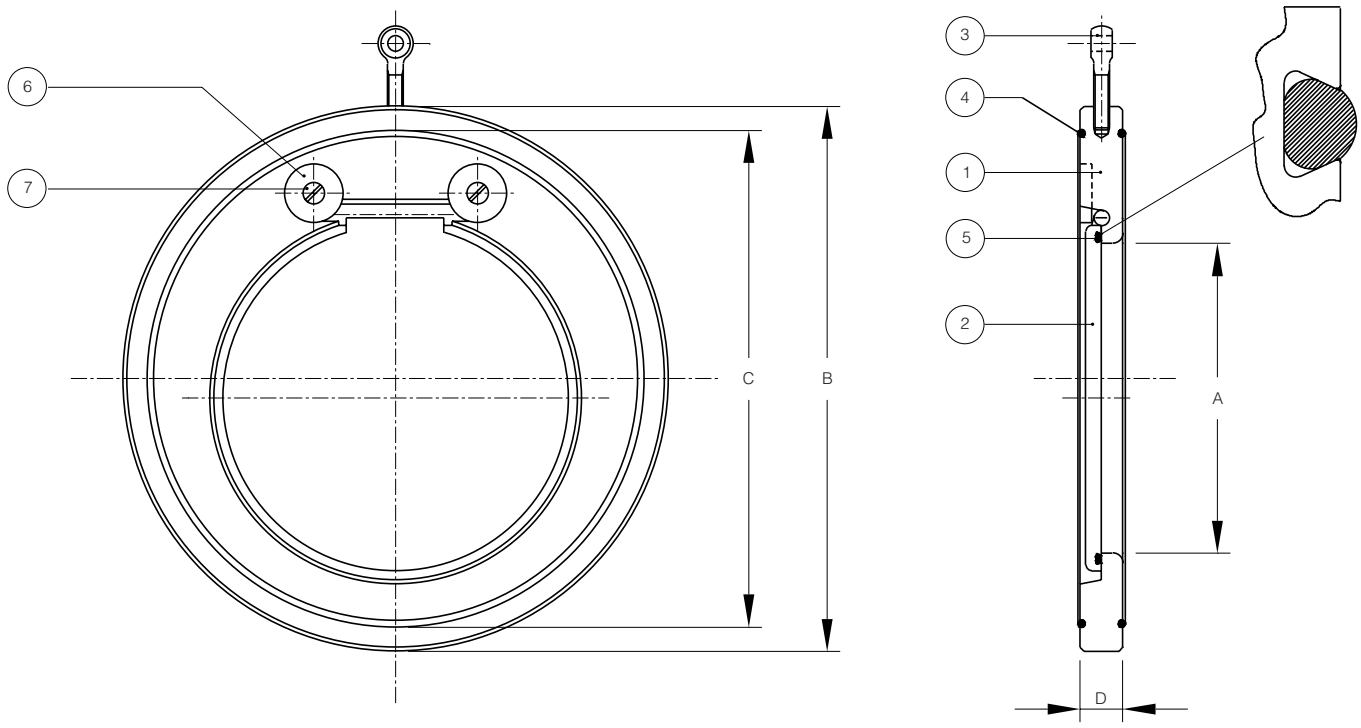
A valve for oil, gas and water, chemical handling, fire protection systems, municipal water systems, natural gas systems and HVAC.

TECHNICAL DATA

Sizes (DN):	40-300
Temp. (°C):	-60 to +204
Pressure (bar):	16
Flange accomm.:	PN 10/16 ASME 150

KEYSTONE SWING TYPE WAFER CHECK VALVE

FIGURE 85



VALVE DIMENSIONS (mm)

Size DN	A	B	C	D	Mass (kg)
40	22	95	79	14	0.7
50	32	109	87	14	0.9
65	40	129	109	14	1.2
80	54	144	119	14	1.5
100	70	164	147	18	2.4
125	92	195	174	18	3.3
150	112	220	198	20	4.7
200	154	275	255	22	8.0
250	200	330	307	26	13.5
300	240	380	358	32	21.0

VALVE DATA

Size DN	K_v	Min. opening pressure in bar	Zeta value
40	23	0.006	7.60
50	49	0.007	4.09
65	75	0.007	4.98
80	125	0.007	4.12
100	183	0.008	4.69
125	340	0.008	3.32
150	500	0.010	3.18
200	1100	0.009	2.08
250	1610	0.011	2.37
300	2290	0.013	2.43

PARTS LIST

Part	Name
1	Body
2	Disc
3	Lifting eye bolt
4	Body O-ring
5	Disc O-ring
6	Washer
7	Countersunk screws

NOTES

1. Minimum opening pressure at vertical upstream flow.
2. K_v / Zeta value for full opening as used with PN 10 flanges.
3. Dimensions given for PN 10 flanges.
4. Contact factory for other flange accommodations.
5. "D" makes reference to ISO 5752-2022 Series 97 (Table 17) and EN 558-2022 Series 97 (Table 20).

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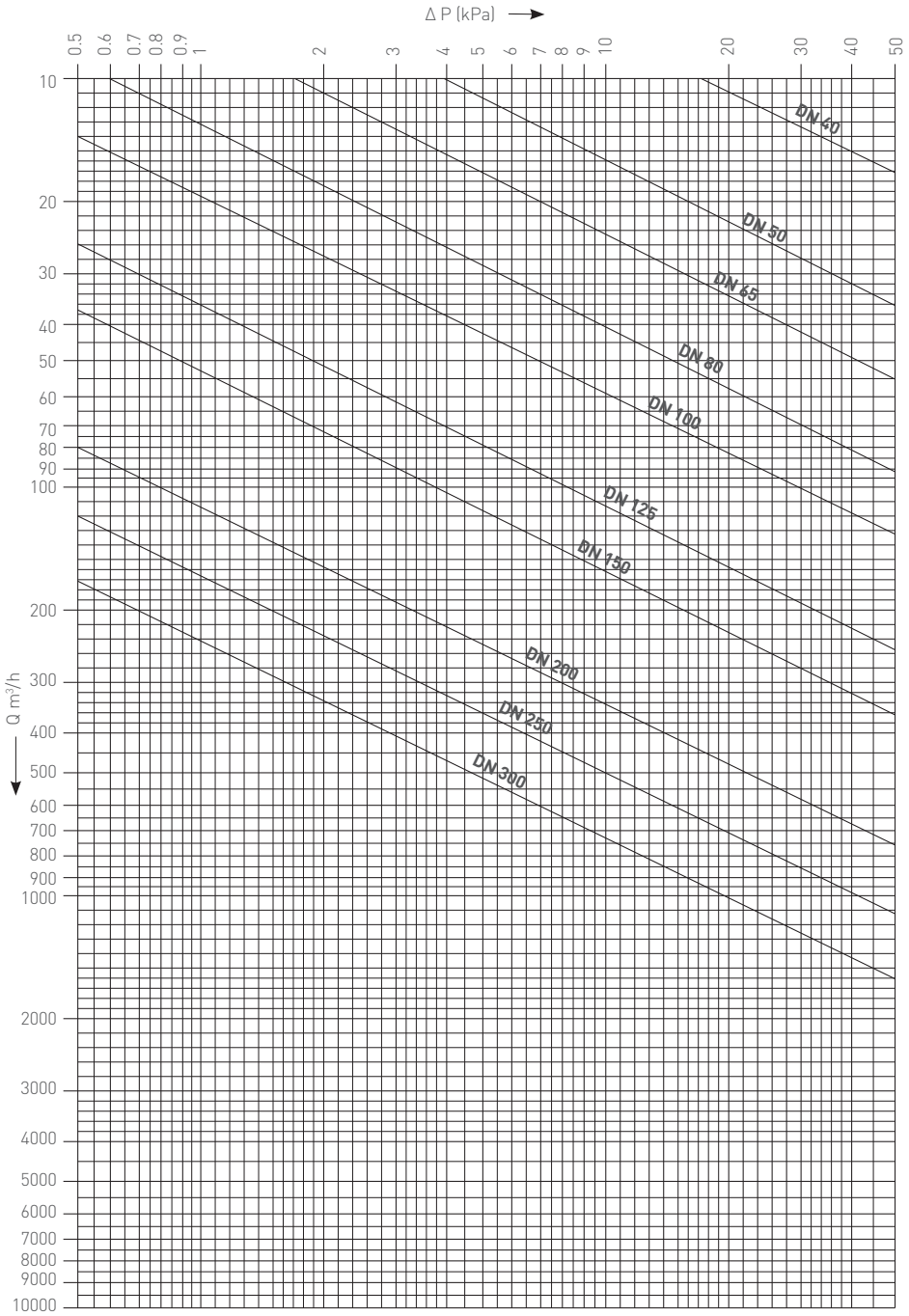
FIGURE 85



NOTES

100 kPa = 1 bar.

Liquid service = relative density = 1.

KEYSTONE SWING TYPE WAFER CHECK VALVE

FIGURE 85

MATERIAL SELECTION

Body	Disc	Shaft	Seat (O-ring)	Trim
Carbon steel	Carbon steel	Stainless steel/Carbon steel	NBR	199
			FKM	208
			EPDM	207
			FEP/silicone kernal	575
Stainless steel	Stainless steel	Stainless steel	NBR	200
			FKM	212
			EPDM	211
			FEP/silicone kernal	576

MATERIAL SPECIFICATION

Part name	Material	EN designation	EN mat. number	Remark
Body	Steel/ZP	P265GH	1.4025	
		GP240GH/ZP	1.0619/ZP	DN 40-300
	Stainless steel	X5CrNiMo17-12-2	1.4401	
		GX5CrNiMo19-11-2	1.4408	DN 40-300
Disc	Steel/ZP	GP240GH/ZP	1.0619/ZP	DN 40-300
		P265GH	1.4025	
	Stainless steel	GX5CrNiMo19-11-2	1.4408	DN 40-300
		X5CrNiMo17-12-2	1.4401	
Shaft	Steel/ZP	GP240GH/ZP	1.0619/ZP	DN 40-300
	Stainless steel	X5CrNiMo17-12-2	1.4401	
		GX5CrNiMo19-11-2	1.4408	DN 40-300
Body/Disc O-ring	EPDM			
	NBR			
	FKM			
	FEP/silicone kernal			FKM kernal optional
Lifting eye bolt	Steel/ZP	B DIN 444-4.6/ZP	DIN 1.0401/ZP	
Countersunk screw	A2			DN 125-300
Washer	A4			DN 125-300
Panhead screw/large head	A2			DN 40-100

ZP = zinc plated

PRESSURE-TEMPERATURE DIAGRAM

Seat material	Disc material	Body material*	Size range DN (mm)	Valve function Wafer/end of line	Temperature in °C -60	-40	-20	-15	0	50	100	120	130	190	204	230	Notes
EPDM	all	all	all	W					16 Bar								1
NBR	all	all	all	W					16 Bar								2
FKM	all	all	all	W						16 Bar							3
FEP/Silicone Kernel	all	all	all	W						16 Bar							4

PRESSURE-TEMPERATURE DIAGRAM

Note	Trims		
1	207	211	247
2	199	200	201

Note	Trims		
3	208	212	248
4	575	576	577

NOTE

* For PED, minimum temperature for NiAlBz (CC333G) body material is -29 °C.