



GESTRA® DISCO Swing Check Valves CB 26, CB 26 a



Issue Date: 2/98

Non-Return
PN 6/10/16/25/40
DN 50-300 mm
(2-12")

A₂

CB 26, CB 26 a

Application CB 26: for liquids, gases, vapours.
CB 26 a: for corrosive liquids, gases, vapours.

Pressure/Temperature Rating for valves with metal-to-metal seat

Nominal pressure	PN	40 ¹⁾							
Temperature	°C	20	100	200	250	300	350 ⁴⁾⁶⁾	400 ⁴⁾⁶⁾	450 ⁴⁾⁶⁾
	°F	68	212	392	482	572	662	752	842
Type CB 26									
Service pressure DN 50-200 mm (2-8")	barg	40	38	30	27	24	20	—	—
	psig	580	550	435	390	350	290	—	—
Service pressure DN 250-300 mm (10-12")	barg	40	32	27	24	21	—	—	—
	psig	580	465	390	350	305	—	—	—
Type CB 26 a									
Service pressure DN 50-300 mm (2-12")	barg	40	38	32	30	29	28	27	26
	psig	580	550	465	435	420	405	390	375
Min. temperature ²⁾		-10 °C (14 °F)							

¹⁾ Also rated for ANSI classes 125, 150 and 300, but see flange details below.

²⁾ Minimum temperature at maximum pressure.

⁶⁾ Application without springs

Soft seats

EPDM (ethylene propylene): -50 to +150 °C (-58 to +302 °F) for water, condensate and steam.

FPM (fluoro rubber): -25 to +200 °C (-13 to +392 °F) for oils, gases and air.

But also note valve pressure/temperature rating in the above table.

Chemical resistance see GESTRA Information 30.

Connections of wafer-type valves ³⁾

DIN	Standard valves for fitting between flanges to BS	ANSI
DIN 2501 PN 6/10/16/25/40	B 10 tables D, E (DN 65 mm (2 1/2") not suitable)	ANSI B 16.1 class 125 FF ANSI B 16.5 class 150/300 RF

³⁾ If the valves are installed in horizontal lines the eyebolt must be on the top.

DN 50-100 mm (2-4") with universal centring ring.

Dimensions

mm		DN in	Dimensions in mm				Weight kg
			L	D	a	d*)	
50		2	17	98	40	50	0.9
65		2 1/2	20	118	50	64	1.4
80		3	24	132	58	75	2.0
100		4	27	154	72	99	3.1
125		5	32	184	88	125	5.3
150		6	32	209	112	144	6.9
200		8	42	264	150	198	14.1
250		10	47	319	182	244	23.6
300		12	52	375	216	292	33.8

*) d = minimum allowable flange bore (inside pipe diameter)

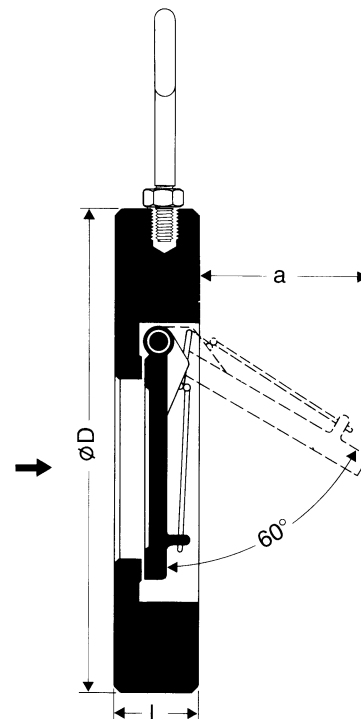
Opening Pressures • Differential pressures at zero volume flow.

DN		Opening pressures in mbar			
		Direction of flow			
		without springs ⁴⁾	with springs		
mm	in	↑	↑	→	↓
50 – 80	2 – 3	5	12	7	⁵⁾
100 – 150	4 – 6	11	18	7	
200 – 300	8 – 12	18	25	7	

⁴⁾ Springs can be removed without problems.

⁵⁾ Valves may not be used for downward flow applications, since the spring will not close the valve flap.

1 mbar $\hat{=}$ 0.0415 psi $\hat{=}$ 10 mm w.g. $\hat{=}$ 0.4 in w.g.



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.

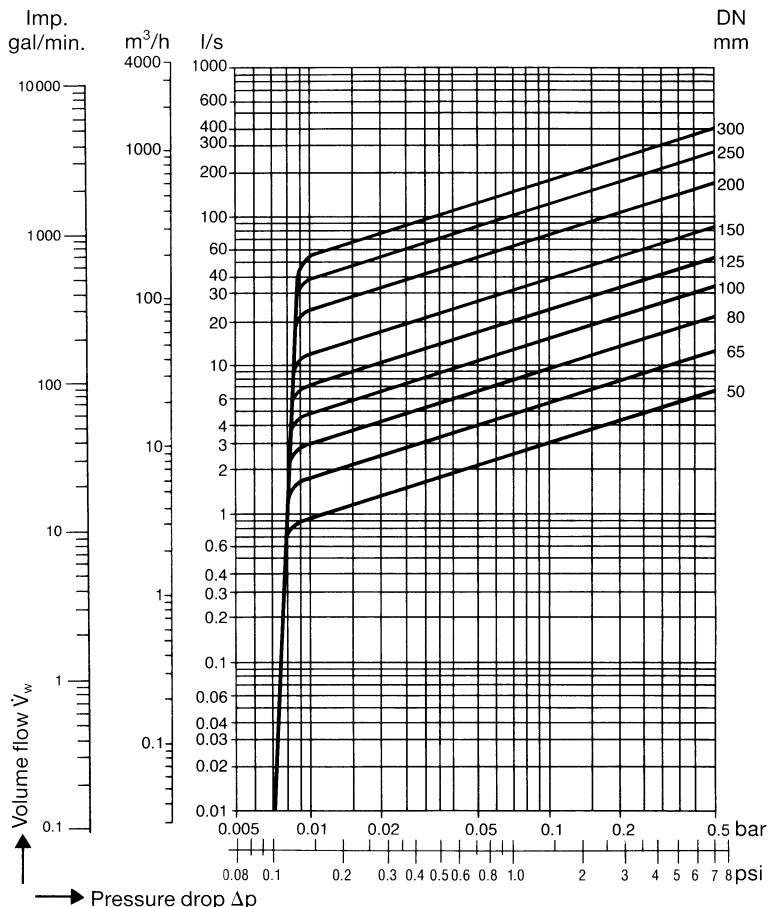
The values indicated in the chart are applicable to spring-loaded valves with horizontal flow. With vertical flow insignificant deviations occur only within the range of partial opening.

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

$\dot{V}_w$ = Equivalent water volume flow in l/s etc.

ρ = Density of fluids (operating condition) in kg/m³ etc.

$\dot{V}$ = Volume of fluid (operating condition) in l/s etc.



Enquiry Specification

GESTRA DISCO swing check valves CB. Wafer design with extremely short overall length. Valve flap opening through 60°. Metal hinge. Two springs.

Suitable for fitting between flanges to DIN, BS or ANSI.

Indications on pressure, nominal size (DN), material. Metal-to-metal seat or soft seat (EPDM or FPM).

Order Specifications

Types CB 26, CB 26a nominal size (DN)... Metal-to-metal or soft seat (EPDM or FPM).

Fluid, flowrate, pressure and temperature. Type of flanges.

Note

The valves should not be used on compressors or where pulsating flow exists.

For these applications please consult us.

Supply in accordance with our general terms of business.

Technical modifications reserved.

Materials

Type CB 26				
DN 50-300 mm (2-12")		DIN reference		ASTM equivalent
Body	DN 50-200 mm	C 22.8	1.0460	A 105
	DN250-300 mm	RSt 37-2	1.0038	A214
Flap	DN 50- 80 mm	G-X 5 CrNiMoNb 18 10	1.4581	A 352 CF 8 MC
	DN100-300 mm	EN JS-1049	0.7043	(A536Grade60-40-18)
Bow springs		X 6 CrNiMoTi 17 12 2	1.4571	A 313 Type 316
Shaft and supports				A 182 F 316
Sleeves for DN 200-300 mm only)				A 182 F 316
Type CB 26 a				
DN 50-300 mm (2-12")		DIN reference		ASTM equivalent
Body	DN 50-250 mm	X 6 CrNiMoTi 17 12 2	1.4571	A 182 F 316
	DN 300 mm	G-X 5 CrNiMoNb 18 10	1.4581	A 351 CF 8 MC
Flap		G-X 5 CrNiMoNb 18 10	1.4581	A 351 CF 8 MC
Bow springs		X 6 CrNiMoTi 17 12 2	1.4571	A 313 Type 316
Shaft and supports				A 182 F 316
Sleeves (for DN 200-300 mm only)				A 182 F 316