



GESTRA® DISCO Swing Check Valves **CB 14**

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

A₂

CB 14

Issue Date: 10/91

Application for liquids, gases, vapours.

Pressure/Temperature Rating

Nominal sizes DN	mm in	50-300 2-12			
Nominal pressure	PN	16 ¹⁾			
Max. service pressure	barg psig	16 230	10 145	6 85	4 60
Related temperature	°C °F	20 68	40 104	60 140	80 176
Min. temperature ²⁾		- 10 °C (14 °F)			

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

²⁾ Minimum temperature for nominal pressure rating.

Chemical resistance see GESTRA Information A 2.1.

Connections of wafer-type valves ³⁾

DIN	Standard valves for fitting between flanges to BS	ANSI
DIN 2501 PN 6/10/16	BS 10 tables D, E (DN 65 mm (2½") not suitable)	ANSI B 16.1 class 125 FF ANSI B 16.5 class 150 RF

³⁾ Installation only in horizontal pipelines or in vertical lines with upward flow.
If the valves are installed in horizontal lines the eyebolt must be on top.

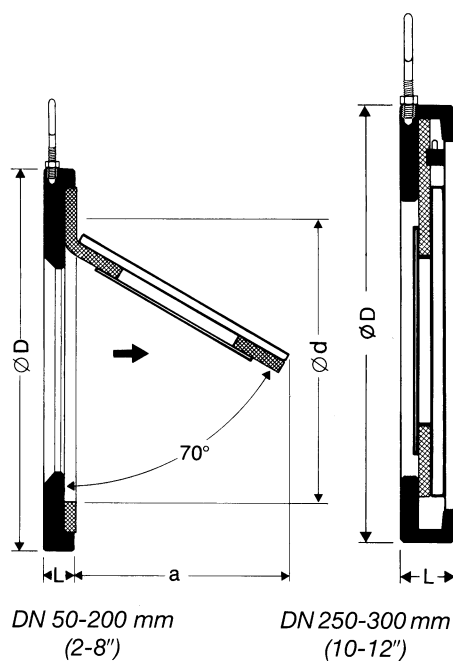
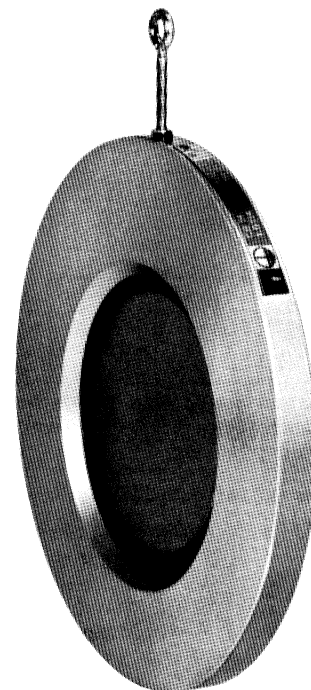
Dimensions

DN		Dimensions in mm				Weight kg
mm	in	L	D	a	d ⁴⁾	
50	2	14	98	45	47	0.7
65	2½	14	118	60	64	1.0
80	3	14	132	70	75	1.4
100	4	14	154	90	98	1.5
125	5	16	184	115	124	2.5
150	6	16	209	145	148	3.3
200	8	18	264	185	196	5.5
250	10	35	319	220	242	11.2
300	12	43	375	270	288	14.0

⁴⁾ d = minimum allowable flange bore (inside pipe diameter).

Materials

DN 50-300 mm (2-12")	DIN reference	
Body	Steel RSt 37-2, galvanized	1.0038
Flap	Perbunan (NBR)	
Reinforcement plate	Steel RSt 37-2, galvanized	1.0038



A₂

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

CB 14



FLOWSERVE
Flow Control Division

GESTRA

AKTIENGESELLSCHAFT

P.O.B. 10 54 60 · D-2800 Bremen 1 · Tel. (04 21) 35 03-0

Fax (04 21) 35 03 393 · Tlx 244 945-0 gbd · Ttx 42 12 166 GAGHB

Opening pressures

Differential pressures at zero volume flow

DN		Opening pressures in mbar		
		Direction of flow valves without springs		
mm	in	↑	→	↓
50 to 150	2 to 6	8	0	5)
200 to 300	8 to 12	15	0	

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

1 mbar $\triangleq$ 0.0145 psi $\triangleq$ 10 mm w.g.
 $\triangleq$ 0.4 in w.g.

Enquiry Specification

GESTRA DISCO swing check valves CB. Wafer design with extremely short overall length. Valve flap opening through 70°. Without spring. Synthetic rubber flap with integral rubber hinge.

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

Indications on pressure, nominal size (DN), body material.

Order Specifications

Type CB 14, nominal size (DN) . . .

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.

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 opening.

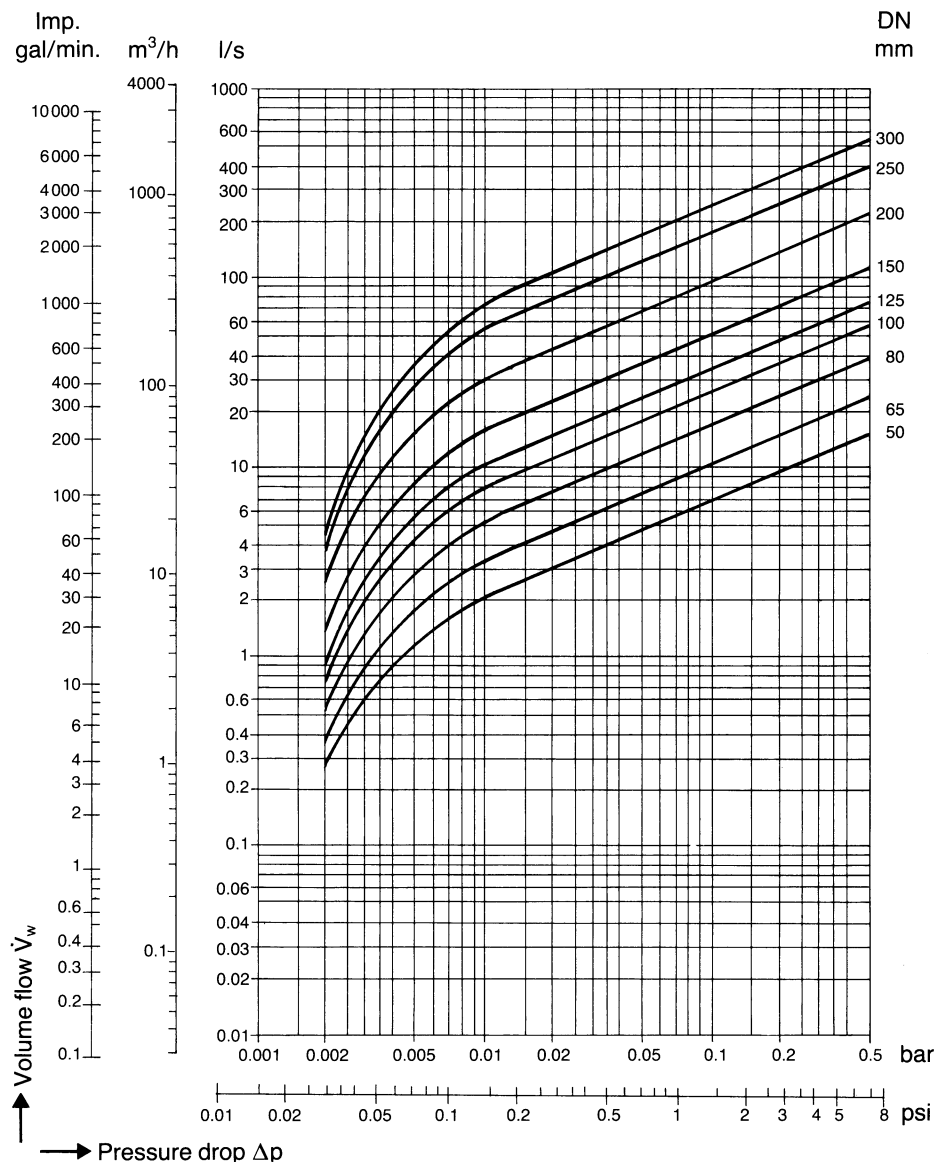
Bore of pipe flanges corresponding to DIN 2633.

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

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

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

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



1 US gallon $\triangleq$ 0.833 Imp. gallon