



CE In compliance with PED 97/23/EC

technical details

- wafer design
- self-centering
- light weight and small face to face
- low pressure drops
- easy to install and maintenance
- materials : zinc plated carbon steel, stainless steel 316, alu-bronze
- metal/metal seat or soft seal
- series DN 32 ÷ DN 800
- suitable for flanges EN1092-1:2001 PN 6, 10, 16, 25 and ANSI 150 RF
- special executions upon request:
series ANSI 300 ÷ ANSI 1500 RF e RTJ
series PN 40 ÷ PN 250

applications

Marine and offshore industry
Petrochemical industry
Heating
Ventilation
Fire protection systems
Water industry

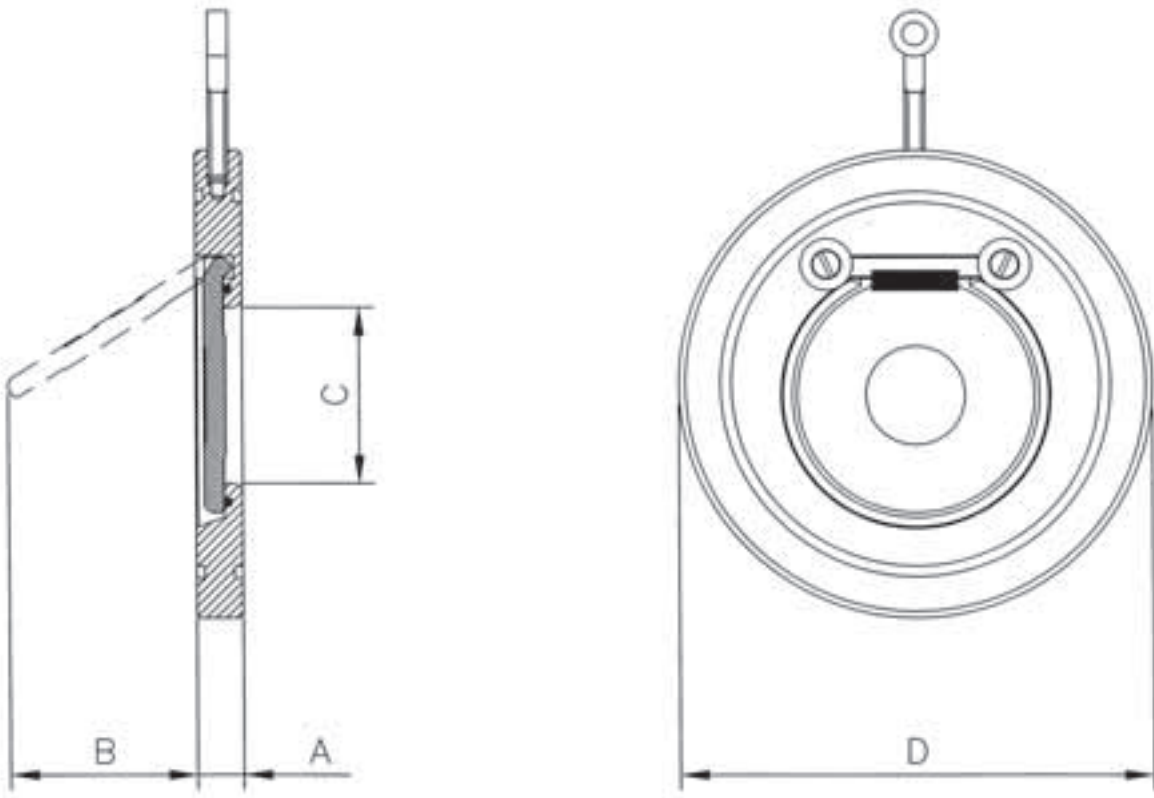
working pressure

PN 6	6 Kg/cm ²	85 Psi
PN 10	10 Kg/cm ²	142 Psi
PN 16	16 Kg/cm ²	227 Psi
PN 25	25 Kg/cm ²	355 Psi
ANSI 150	20 Kg/cm ²	284 Psi

Minimum opening pressure (mbar)

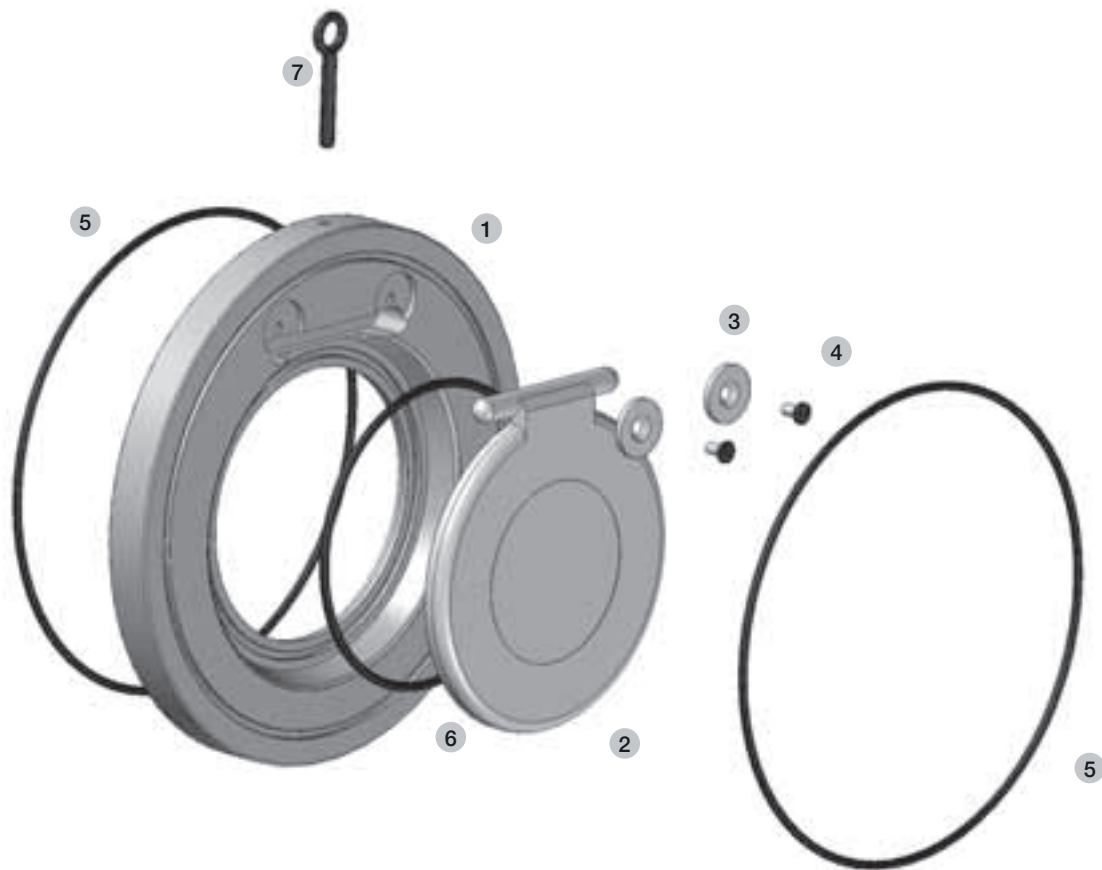
DN	DN 32 : DN 150	DN 200 : DN 350	DN 400 : DN 600
Flow direction			
Horizontal open 10°	3	3	6
Horizontal open 30°	9	12	16
Horizontal open 60°	13	19	26
Vertical uphill	16	22	32
Vertical downhill	it is not possible to use the valve mounted in this position		

 Swing check valve **series CV**



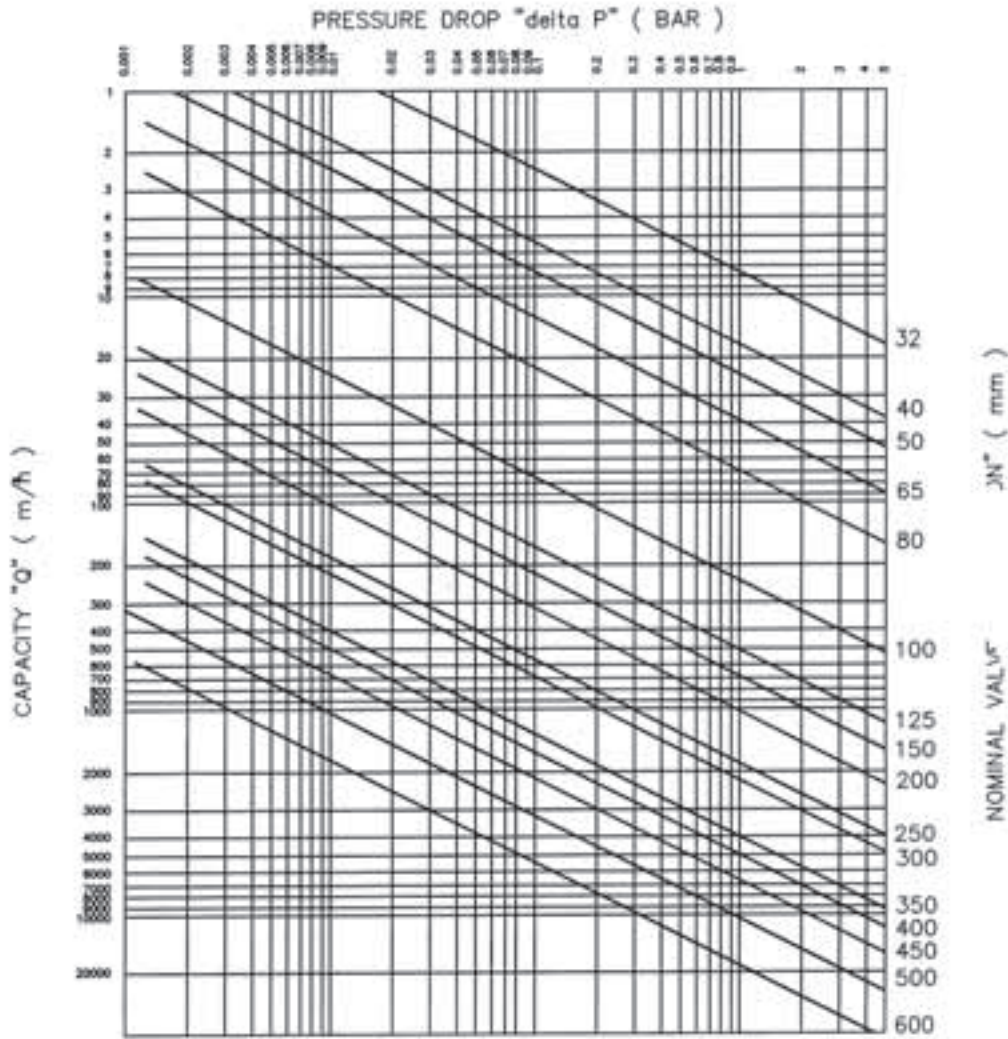
DN		A	B	C	D	D	D	D	D ANSI 150	WT PN10
mm	inch									Kg
32	1 ¼	14	20	17	78	84	84	84	76	0,6
40	1 ½	14	30	22	88	95	95	95	86	0,7
50	2	14	34	32	98	109	109	109	105	0,9
65	2 ½	14	48	40	118	129	129	129	124	1,2
80	3	14	55	54	134	144	144	144	137	1,5
100	4	18	71	70	154	164	164	170	175	2,4
125	5	18	92	92	184	195	195	198	195	3,4
150	6	20	115	112	209	220	220	228	220	4,6
200	8	22	138	154	264	275	275	285	279	7,5
250	10	26	179	200	319	330	330	340	340	13,1
300	12	32	185	240	375	380	387	403	410	20,4
350	14	38	258	270	425	440	448	460	448	32,0
400	16	44	300	310	475	490	495	514	514	48,0
450	18	50	331	360	530	540	557	567	548	63,0
500	20	56	368	405	580	595	617	624	605	87,0
600	24	62	435	486	680	695	734	731	715	130,0
700	28	68	530	580	785	810	805	833	830*	215,0
800	32	80	620	670	890	917	911	942	937*	280,0

* Suitable for flanges mss sp-44 150 lbs



Pos	Component	Q.ty	Material	T max °C	T min °C
1	body	1	Carb. steel	+ 250	- 10
			SS 316L	+ 510	- 50
			Alu-bronze	+ 260	- 10
2	disc	1	Carb. steel	+ 250	- 10
			SS 316L	+ 510	- 50
			Alu-bronze	+ 260	- 10
3	washer	1	SS 316	+ 510	- 50
4	screw	2	SS 316	+ 510	- 50
5	Ext. O-ring	2	NBR	+ 120	- 20
			EPDM	+ 130	- 30
			FKM	+ 260	- 50
			PTFE	+ 260	- 50
6	Int. O-ring	1	As external O-ring	-	-
7	Eyebolt	1	Carb. steel	-	-

PRESSURE DROP DIAGRAM "delta P"
 TEST CONDITIONS: Water (H2O)
 Specific weight : 1 Kg/dm
 Temperature : 15°C



The curves shown on the diagram represent pressure drop related to water at 15°C. Pressure drop related to fluids other than water (air or gas) is obtained by calculating the equivalent related water flow (Qe) and including this new value on the diagram.
 To obtain the value of the equivalent water flow (Qe) the following formula should be applied:

$$Q_e = \sqrt{\frac{\gamma}{1000}} \times Q$$

Qe = Equivalent water flow in m³/h
 Q = Fluid flow (air or gas) at operating conditions in m³/h
 γ = Fluid density measured in operating conditions in Kg/m³

The pressure drops shown on the diagram and those obtained from the formula refer to valves fitted on horizontal pipelines. The values indicated on the diagram are also applicable to valves fitted on vertical pipelines, only in case of partial valve opening.
 The resulting differences are unimportant.

COEFFICIENT VALUES "CV"

DN	CV	DN	CV
32 1¼	8.7	200 8	1205
40 1½	20	250 10	2200
50 2	29.5	300 12	2560
65 2½	49	350 14	4820
80 3	78	400 16	6050
100 4	286	450 18	7740
125 5	635	500 20	11825
150 6	840	600 24	18800



CE In compliance with PED 97/23/EC

technical details

- wafer design
- self-centering
- light weight and small face to face
- low pressure drops
- easy to install and maintain
- materials: zinc plated carbon steel, stainless steel 316, alu-bronze
- metal/metal seat or soft seal
- series DN 32 ÷ DN 300
- suitable for flanges EN1092-1:2001 PN 6, 10, 16, 25 and ANSI 150 RF
- special executions upon request:
series ANSI 300 ÷ ANSI 1500 RF e RTJ
series PN 40 ÷ PN 250

applications

Marine and offshore industry
Petrochemical industry
Heating
Ventilation
Fire protection systems
Water industry

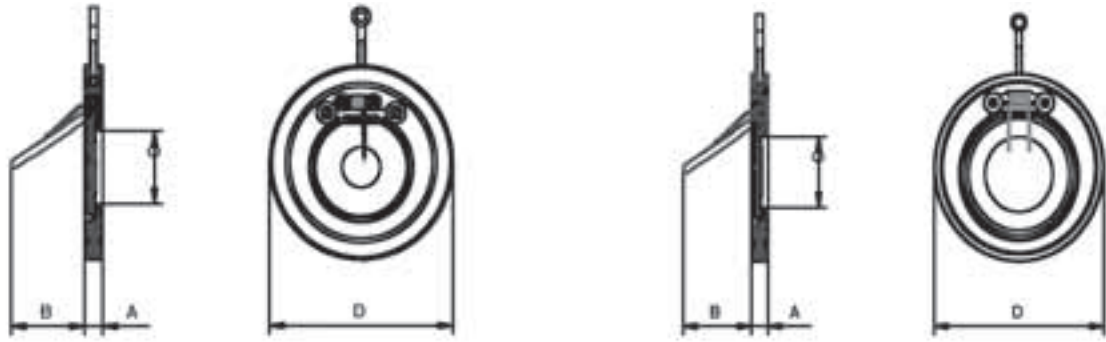
working pressure

PN 6	6 Kg/cm ²	85 Psi
PN 10	10 Kg/cm ²	142 Psi
PN 16	16 Kg/cm ²	227 Psi
PN 25	25 Kg/cm ²	355 Psi
ANSI 150	20 Kg/cm ²	284 Psi

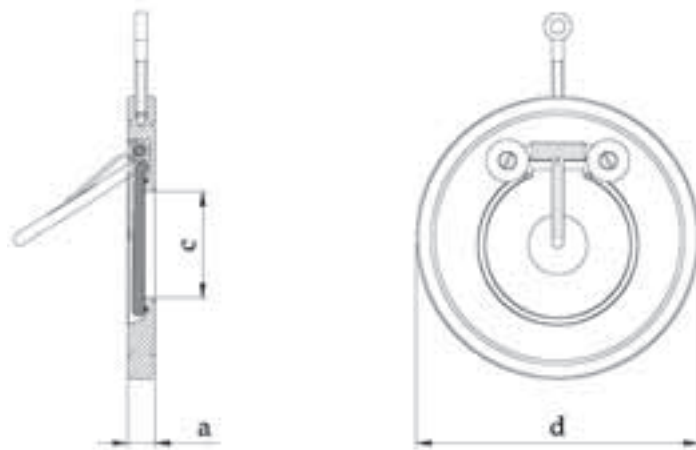
Minimum opening pressure (mbar)

DN	DN 32 : DN 150	DN 200 : DN 300
Flow direction		
Horizontal open 10°	13	15
Horizontal open 30°	19	25
Horizontal open 60°	23	32
Vertical uphill	26	18
Vertical downhill	10	10

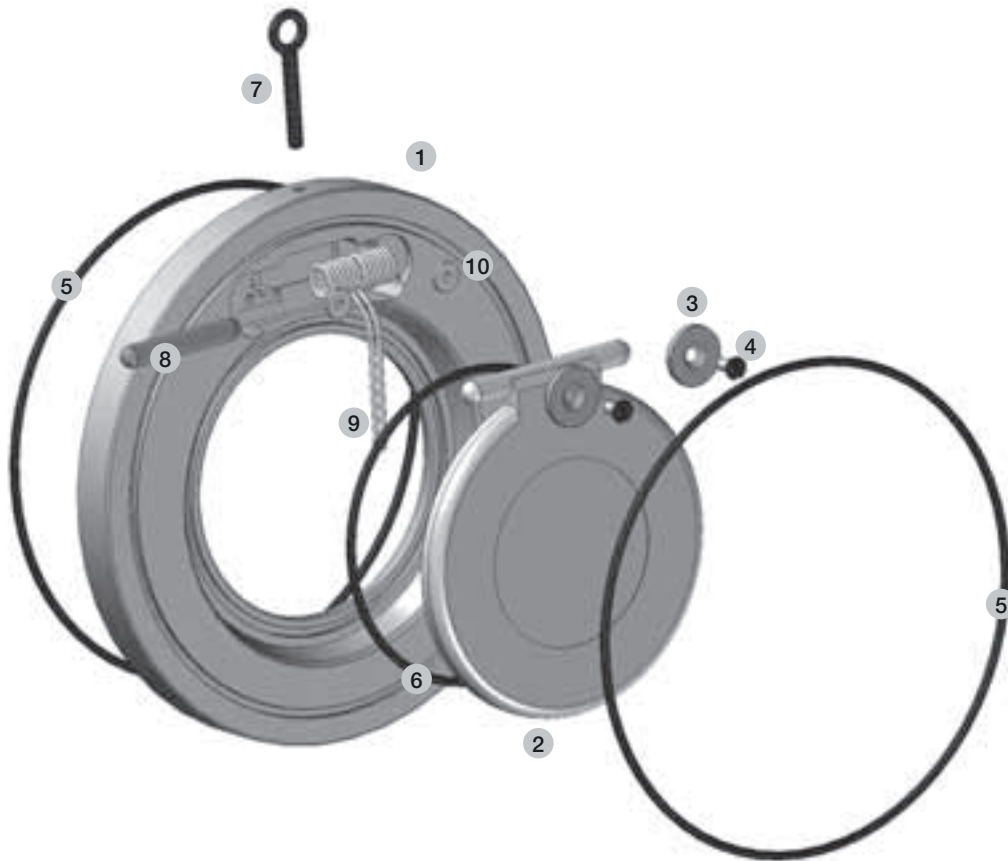
 Swing check valve **series CS**



DN											WT PN10
mm	inch	A	B	C	D PN 6	D PN10	D PN16	D PN25	D ANSI 150	Kg	
32	1 ¼	14	20	17	78	84	84	84	76	0,6	
40	1 ½	14	30	22	88	95	95	95	86	0,7	
50	2	14	35	32	98	109	109	109	105	0,9	
65	2 ½	14	48	40	118	129	129	129	124	1,2	
80	3	14	60	54	134	144	144	144	137	1,5	
100	4	18	78	70	154	164	164	170	175	2,4	
125	5	18	98	92	184	195	195	198	195	3,4	
150	6	20	117	112	209	220	220	228	220	4,6	
200	8	22	160	154	264	275	275	285	279	7,5	

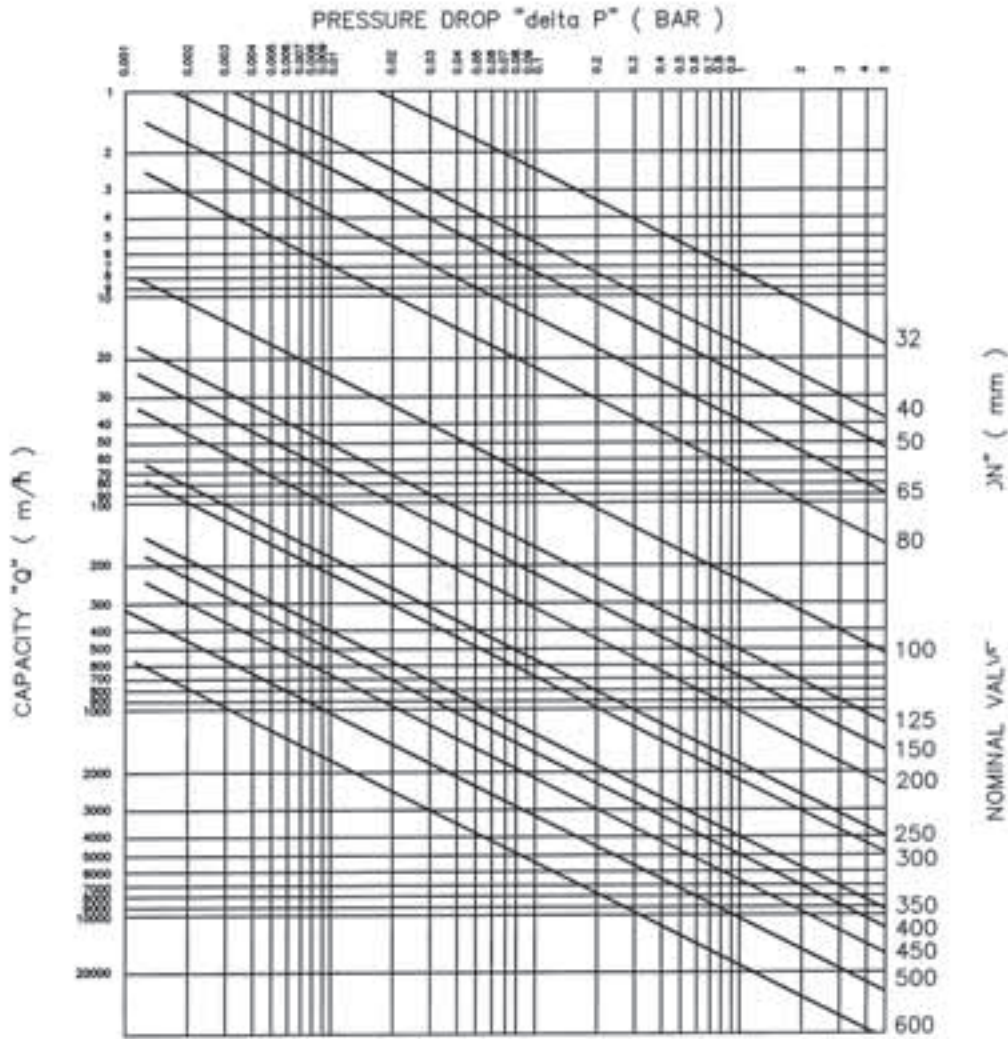


DN											WT PN10
mm	inch	A	B	C	D PN 6	D PN10	D PN16	D PN25	D ANSI 150	Kg	
250	10	26	200	200	319	330	330	340	340	13,1	
300	12	32	235	240	375	380	387	403	410	20,4	



Pos	Component	Q.ty	Material	T max °C	T min °C
1	body	1	Carb. steel SS 316L Alu-bronze	+ 250 + 510 + 260	- 10 - 50 - 10
2	disc	1	Carb. steel SS 316L Alu-bronze	+ 250 + 510 + 260	- 10 - 50 - 10
3	washer	1	SS 316	+ 510	- 50
4	screw	2	SS 316	+ 510	- 50
5	ext. O-ring	2	NBR EPDM FKM PTFE	+ 120 + 130 + 260 + 260	- 20 - 30 - 50 - 50
6	int. O-ring	1	As external O-ring	-	-
7	eyebolt	1	Carb. steel	+ 250	- 10
8	spring shaft	1	SS 316	+ 510	- 50
9	spring	1-2	SS 316	+ 510	- 50
10	spring screw	2	SS 316	+ 510	- 50

PRESSURE DROP DIAGRAM "delta P"
 TEST CONDITIONS: Water (H2O)
 Specific weight : 1 Kg/dm
 Temperature : 15°C



The curves shown on the diagram represent pressure drop related to water at 15°C. Pressure drop related to fluids other than water (air or gas) is obtained by calculating the equivalent related water flow (Qe) and including this new value on the diagram.
 To obtain the value of the equivalent water flow (Qe) the following formula should be applied:

$$Q_e = \sqrt{\frac{\gamma}{1000}} \times Q$$

Qe = Equivalent water flow in m³/h
 Q = Fluid flow (air or gas) at operating conditions in m³/h
 γ = Fluid density measured in operating conditions in Kg/m³

The pressure drops shown on the diagram and those obtained from the formula refer to valves fitted on horizontal pipelines. The values indicated on the diagram are also applicable to valves fitted on vertical pipelines, only in case of partial valve opening.
 The resulting differences are unimportant.

COEFFICIENT VALUES "CV"

DN	CV	DN	CV
32 1¼	8.7	200 8	1205
40 1½	20	250 10	2200
50 2	29.5	300 12	2560
65 2½	49	350 14	4820
80 3	78	400 16	6050
100 4	286	450 18	7740
125 5	635	500 20	11825
150 6	840	600 24	18800



CE In compliance with PED 97/23/EC

technical details

- wafer design
- self-centering
- low pressure drops
- easy to install and maintain
- can be installed on vertical pipelines with downhill flow
- Face to face dimensions according to DIN 3202 K4 (DN 15 – DN 200)
- materials: SS316 (DN 15 : DN 200), zinc plated carbon steel (DN 125 : DN 200)
- metal/metal seat (DN 15 : DN 200), soft seal (DN 125 : DN 200)
- standard series DN 15 ÷ DN 200
- suitable for flanges EN 1092-1:2001 PN 6, 10,16, 25

applications

Marine and offshore industry
 Petrochemical industry
 Heating
 Ventilation
 Fire protection systems
 Water industry

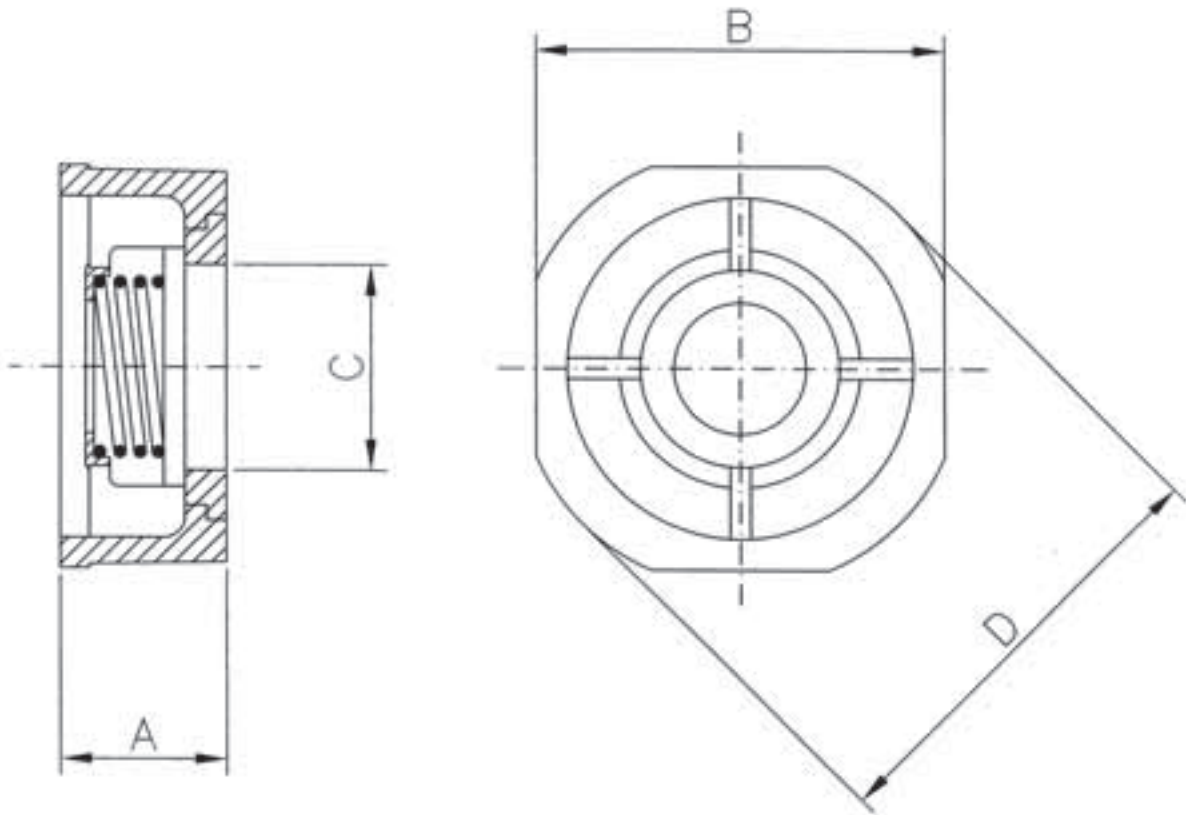
working pressure

PN 6	6 Kg/cm ²	85 Psi
PN 10	10 Kg/cm ²	142 Psi
PN 16	16 Kg/cm ²	227 Psi
PN 25	25 Kg/cm ²	355 Psi
ANSI 150	20 Kg/cm ²	284 Psi

Minimum Opening Pressure (Mbar)

DN	15	20	25	32	40	50	65	80	100	125	150	200
Flow direction												
Horizontal	23	23	23	24	25	25	25	26	27	17	17	17
Vertical uphill	25	25	25	27	29	29	31	32	33	20	20	20
Vertical downhill	21	21	21	21	21	21	21	21	21	15	15	15

 Disc check valve **series DC**



from DN 1/2" up to DN 4"

DN		A	B	C	D PN 10-40	WT
mm	inch					Kg
15	1/2	16	46	15	51	0,10
20	3/4	19	58	20	63	0,16
25	1	22	68	25	73	0,28
32	1 1/4	28	78	32	83	0,52
40	1 1/2	32	88	40	93	0,70
50	2	40	102	50	108	1,10
65	2 1/2	46	122	65	126	1,58
80	3	50	138	80	142	1,76
100	4	60	162	100	167	3,30



☑ Conforme PED 97/23/EC

technical details

- wafer design
- self-centering
- light weight and small face to face
- low pressure drops
- easy to install and maintenance
- materials : zinc plated carbon steel, stainless steel 316
- metal/metal seat or soft seals
- series DN 300 ÷ DN 800
- suitable for flanges EN 1092-1:2001 PN 6, 10, 16, 25 and ANSI 150 RF

applications

Marine and offshore industry
Petrochemical industry
Water industry

working pressure

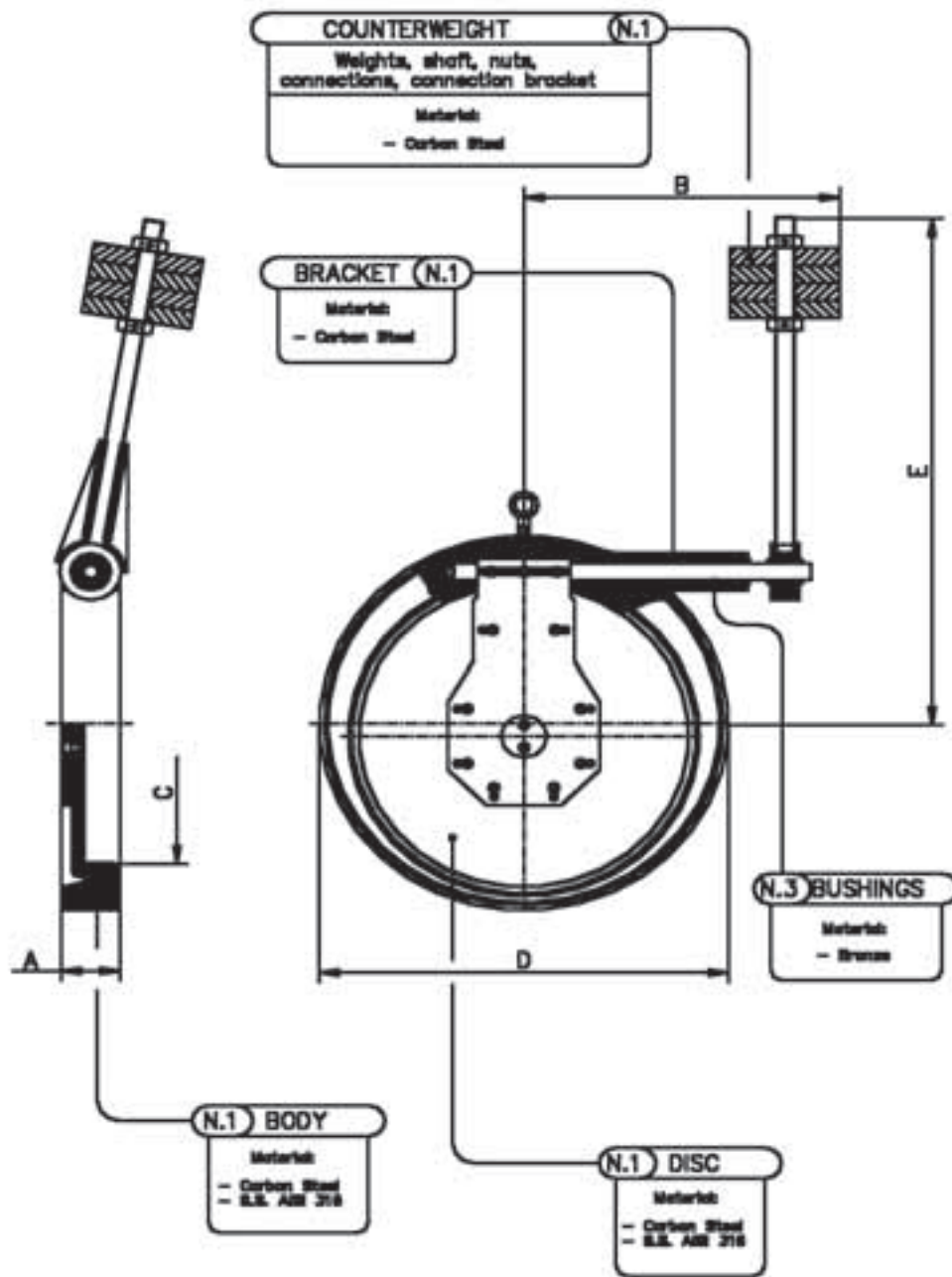
PN 6	6 Kg/cm ²	85 Psi
PN 10	10 Kg/cm ²	142 Psi
PN 16	16 Kg/cm ²	227 Psi
PN 25	25 Kg/cm ²	355 Psi
ANSI 150	20 Kg/cm ²	284 Psi

Minimum opening pressure (mbar)

The main characteristic of this valve is the regulation of the opening pressure which can be set considering the working conditions of the valve itself.



Counterweight check valve **series CC**



DN		A	B	C	E	D PN 6	D PN10	D PN16	D PN25	D ANSI 150
300	12	48	390	240	510	375	380	387	403	410
350	14	53	410	270	590	425	440	448	460	448
400	16	58	460	310	615	475	490	495	514	514
450	18	67	500	360	700	530	540	557	567	548
500	20	72	530	405	800	580	595	617	624	605
600	24	82	605	486	1050	680	695	734	731	715
700	28	90	630	580	1155	785	810	805	833	830*
800	32	98	700	670	1210	890	917	911	942	937*

* Suitable for flanges mss sp-44 150 lbs