

NEOTECHA TYPE KR BALL CHECK VALVE AND TYPE SG SIGHT GLASS

These PFA and PTFE lined products offer a reliable solution in hazardous applications



FEATURES

Check valves

- Heavy duty body in ductile iron GGG40.3 (ASTM A-395).
- Heavy duty PFA or PTFE lining.
- Borosilicate glass for temperatures up to 392°F.
- PTFE ball guided with 4 ribs for vertical and horizontal applications.
- Replaceable soft seats in EPDM, FPM and Perfluor for bubble tight shutoff.
- Blind covers in carbon steel for HF application.
- Suitable for full vacuum.
- Leakfree flange connection.
- Solid, hollow, or weighted balls available.

Sight glasses

- Integral drip nose for low flow indication.
- Suitable for full vacuum.
- Glass protector in FEP for HF applications.

GENERAL APPLICATIONS

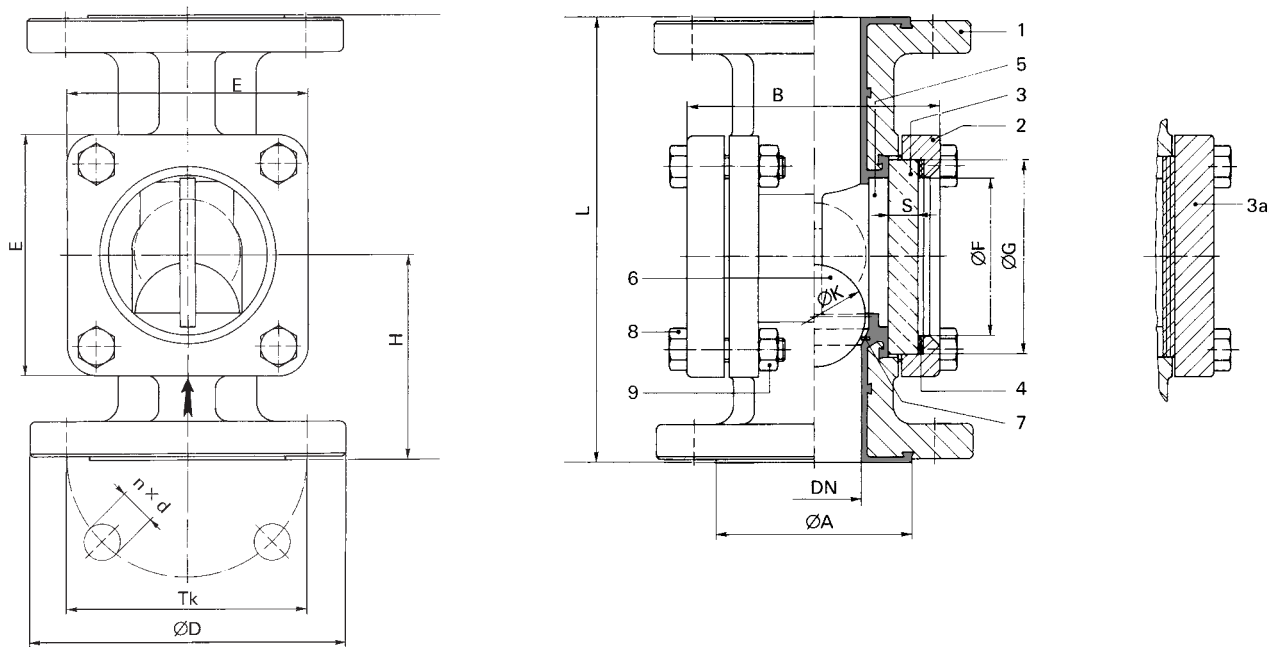
Check valves are used for prevention of back flow on liquid columns in front of pumps. In liquids and gases as overflow protection. In conjunction with safety valves on exhaust systems.

GENERAL TECHNICAL DATA

Size (NPS):	1, 1½, 2, 3
(DN):	25, 40, 50, 80
Pressure rating:	ANSI 150
Temperature (°F):	-40 +392
Flanges:	PN16, ANSI 150, JIS 10K on request
Face-to-face:	EN 558-1
Tightness:	When mounted in a horizontal line 22 psi differential pressure is required for tight closure, and 7 psi when a softseat is fitted.

Pressure and leaktest according DIN 3230, part 3.

NEOTECHA TYPE KR BALL CHECK VALVE AND TYPE SG SIGHT GLASS



DIMENSIONS AND WEIGHTS

Size NPS DN	Dimensions								PN16				ANSI 150				Weight lb
	B	E	L	H	F	G	K	S	A	D	TK	nxd	A	D	TK	nxd	
1 25	3.5	3.2	6.3	3.0	1.9	2.5	1.2	0.4	2.7	4.5	3.4	0.2x0.6	2.0	4.3	3.1	0.2x0.6	10.4
1½ 40	4.7	4.1	7.9	3.6	2.6	3.2	1.8	0.3	3.5	5.9	4.3	0.2x0.7	2.9	5.0	3.9	0.2x0.6	20.5
2 50	5.3	4.9	9.1	4.3	3.2	4.0	2.2	0.6	4.0	6.5	4.9	0.2x0.7	3.6	6.0	4.8	0.2x0.8	27.6
3 80	7.7	7.5	12.2	5.7	5.9	6.9	3.5	1.0	5.4	7.9	6.3	0.3x0.7	5.0	7.5	6.0	0.2x0.8	57.3

MATERIALS OF CONSTRUCTION

Pos.	Description	Material
1	Body	Ductile iron GGG 40.3 PFA lined (ASTM 395)
2	Cover	Ductile iron GGG 40.3
3	Glass	Borosilicate DIN 7080
3a	Cover, blind	Carbon steel
4	Gasket	IT 150, asbestos free
5	Ball, guide	PTFE/Glass 15%
6	Ball, solid	Virgin PTFE
6a	Ball, hollow	Virgin PTFE
6b	Ball, steel	Encapsulated PTFE
7	Seat	See options [2]
8	Bolt, hex	Steel 8.8, galv.
9	Nut	Steel 8.8, galv.

NOTE

Max. operating temperatures with soft seat EPDM 250°F, FPM 320°F, Perfluor 392°F

OPTIONS

The following options from the standard version can be supplied:

- Blind cover pos. 3a can be supplied in carbon steel, PFA lined.
- Soft seat can be supplied in EPDM, FPM or Perfluor pos 7.
- Hollow ball or ball with steel core pos 6.
- SS bolts and nuts grade A2-70 pos. 8, 9.
- For HF application ball guide pos. 5 is virgin PTFE. The glass can be protected with a semi translucent FEP disc 0,06 inch thick to avoid direct contact of the media with the glass.



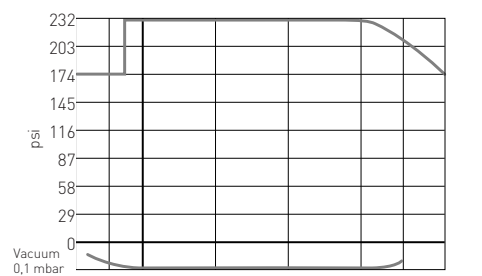
FLOW VALUES

NPS	DN	C _v	K _v
1	25	20.0	17.5
1½	40	37.0	32.0
2	50	60.0	51.0
3	80	148.0	128.0

C_v = USG/min. at Δp of 1 psi

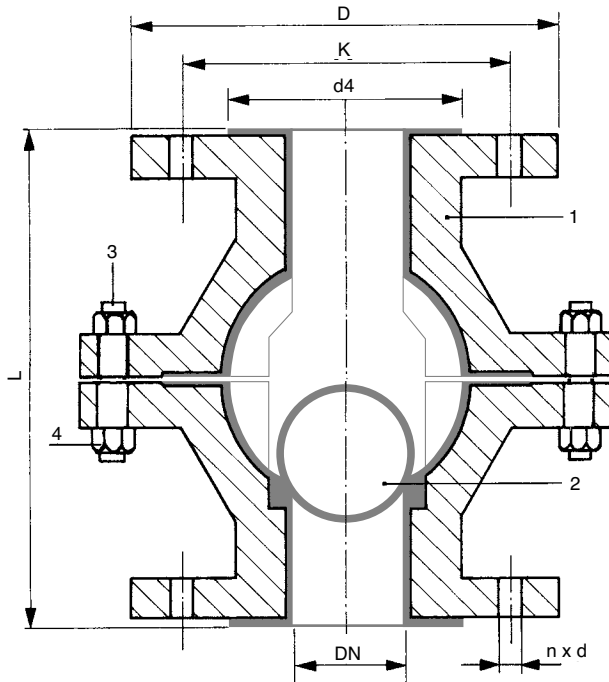
K_v = m³/h water at Δp of 1 bar

PRESSURE - TEMPERATURE DIAGRAM*



* valid for solid PTFE ball only

NEOTECHA TYPE KR BALL CHECK VALVE AND TYPE SG SIGHT GLASS



DIMENSIONS AND WEIGHTS

Size		PN16						ANSI 150					
NPS	DN	D	K	d4	nxd	L	Weight lb	D	K	d4	nxd	L	Weight lb
1/2	15	3.7	2.6	1.9	0.2x0.6	6.3	8.8	3.5	2.4	1.4	0.2x0.5	5.5	7.8
3/4	20	4.1	3.0	2.3	0.2x0.6	6.3	10.0	3.9	2.8	1.7	0.2x0.5	5.5	8.8
1	25	4.5	3.4	2.7	0.2x0.6	6.3	11.0	4.3	3.1	2.0	0.2x0.6	5.0	10.0
1 1/2	40	5.9	4.3	3.5	0.2x0.7	7.9	18.8	5.0	3.9	2.9	0.2x0.6	6.6	17.6
2	50	6.5	4.9	4.0	0.2x0.7	9.1	27.6	6.0	4.8	3.6	0.2x0.8	7.0	27.6
3	80	7.9	6.3	5.4	0.3x0.7	12.2	48.5	7.5	6.0	5.0	0.2x0.8	8.0	50.7
4	100	7.9	7.1	6.2	0.3x0.7	13.8	68.3	9.0	7.5	6.1	0.3x0.8	9.0	72.7
6	150	11.2	9.5	8.4	0.3x0.9	19.0	130.0	11.0	9.5	8.0	0.3x0.9	10.5	130.0
8*	200	13.4	11.6	10.6	0.3xM20	23.6	180.7	13.5	13.5	11.7	0.3x0.9	11.5	176.3

MATERIALS OF CONSTRUCTION

Pos.	Description	Material
1	Body	Carbon steel R-St 37.2
2	Ball, solid	Virgin PTFE
3	Bolts*	Steel 8.8, galv.
4	Nut*	Steel 8.8, galv.

* stainless steel bolts and nuts on request.

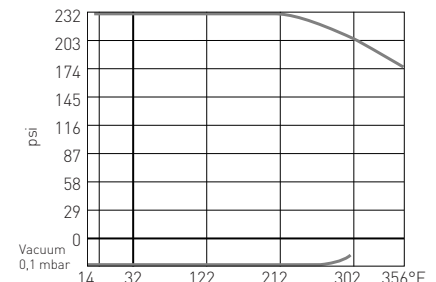
TECHNICAL DATA

Size (NPS): 1/2, 3/4, 1, 1 1/2, 2, 2 1/2, 3, 4, 6, 8
 (DN): 15, 20, 25, 40, 50, 65, 80, 100, 150, 200
 Pressure rating: 230 psi
 Temperature (°F): -10 +350
 Flanges: DIN PN16 or ANSI B16.05 class 150
 Face-to-face: EN 558-1 or ANSI B16.10 class 150
 Ball: Solid virgin PTFE
 Hollow virgin (option) PTFE

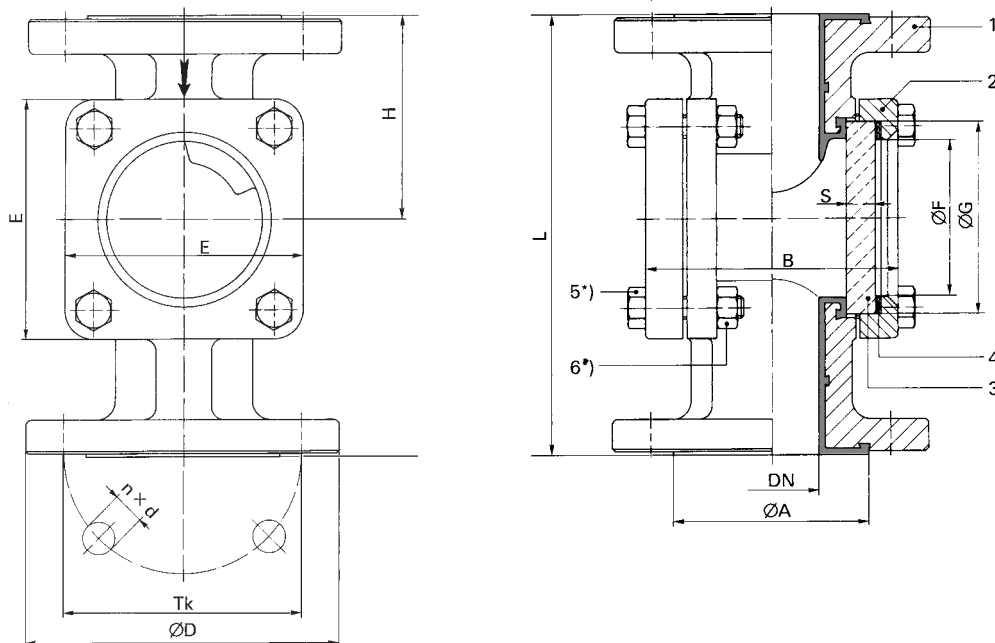
FEATURES

The ball check valve type KR-S is made from a heavy duty carbon steel welded construction. The lining is isostatically moulded PTFE with a minimal wall thickness of 0,16 inch. The valve is available in DIN and ANSI versions.

PRESSURE - TEMPERATURE DIAGRAM



NEOTECHA TYPE KR BALL CHECK VALVE AND TYPE SG SIGHT GLASS



DIMENSIONS AND WEIGHTS

Size		Dimensions								PN16				ANSI 150				Weight
NPS	DN	B	E	L	H	F	G	K	S	A	D	TK	nxd	A	D	TK	nxd	lb
1	25	3.5	3.2	6.3	3.0	1.9	2.5	1.2	0.4	2.7	4.5	3.4	0.2x0.6	2.0	4.3	3.1	0.2x0.6	10.2
1½	40	4.7	4.1	7.9	3.6	2.6	3.2	1.8	0.5	3.5	5.9	4.3	0.2x0.7	2.9	5.0	3.9	0.2x0.6	20.0
2	50	5.9	4.9	9.1	4.3	3.3	3.9	2.2	0.6	4.0	6.5	4.9	0.2x0.7	3.6	6.0	4.7	0.2x0.8	26.9
3	80	7.7	7.5	12.2	5.7	5.9	6.9	3.5	1.0	5.4	7.9	6.3	0.3x0.7	5.0	7.5	6.0	0.2x0.8	55.1

MATERIALS OF CONSTRUCTION

Pos.	Description	Material
1	Body	Ductile iron GGG 40.3, PFA lined (ASTM 395)
2	Cover	Ductile iron GGG 40.3
3	Glass	Borosilicate DIN 7080
4	Gasket	IT 150, asbestos free
5	Bolt, hex	Steel 8.8, galv.
6	Nut	Steel 8.8, galv.

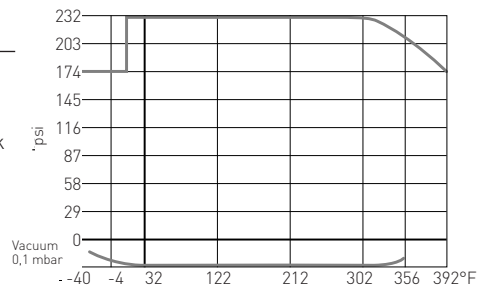
OPTIONS

The following options from the standard version can be supplied:

- SS bolts and nuts, grade A2-70 pos. 5, 6.
- For HF application the glass can be protected with a semi translucent FEP disc 0,06 inch thick to avoid direct contact of the media with the glass.



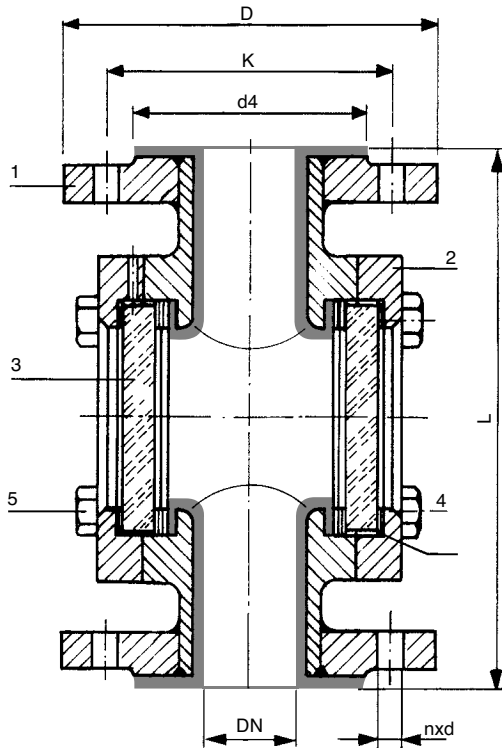
PRESSURE - TEMPERATURE DIAGRAM



FLOW VALUES

NPS	DN	C _v	K _v
1	25	35	30
1½	40	91	78
2	50	162	138
3	80	465	397

NEOTECHA TYPE KR BALL CHECK VALVE AND TYPE SG SIGHT GLASS



DIMENSIONS AND WEIGHTS

Size		PN16						ANSI 150					
NPS	DN	D	K	d4	nxd	L	lb	D	K	d4	nxd	L	lb
1/2	15	3.7	2.6	1.9	0.2x0.6	6.3	8.9	3.5	2.4	1.4	0.2x0.5	5.5	7.8
3/4	20	4.1	3.0	2.3	0.2x0.6	6.3	10.0	3.9	2.8	1.7	0.2x0.5	5.5	8.9
1	25	4.5	3.4	2.7	0.2x0.6	6.3	11.0	4.3	3.1	2.0	0.2x0.6	5.0	10.0
1 1/4	32	5.5	4.0	3.1	0.2x0.7	7.1	16.6	4.6	3.5	2.5	0.2x0.6	5.5	15.4
1 1/2	40	5.9	4.3	3.5	0.2x0.7	7.9	18.8	5.0	3.9	2.9	0.2x0.6	6.5	17.6
2	50	6.5	4.9	4.0	0.2x0.7	9.1	27.6	6.0	4.8	3.6	0.2x0.8	7.0	27.6
2 1/2	65	7.3	5.7	4.8	0.2x0.7	11.4	49.7	7.0	5.5	4.1	0.2x0.8	7.5	45.2
3	80	7.9	6.3	5.4	0.3x0.7	12.2	48.5	7.5	6.0	5.0	0.2x0.8	8.0	50.7
4	100	7.9	7.1	6.2	0.3x0.7	13.8	68.3	9.0	7.5	6.1	0.3x0.8	9.0	72.7
6	150	11.2	9.5	8.4	0.3x0.9	18.9	130.0	11.0	9.5	8.1	0.3x0.9	10.5	130.0
8	200	13.4	11.6	10.6	0.3xM20	23.6	180.7	13.5	13.5	11.7	0.3x0.9	13.4	176.3

MATERIALS OF CONSTRUCTION

Pos.	Description	Material
1	Body	Carbon steel R-St 37-2
2	Cover	Carbon steel R-St 37-2
3	Glass	Pressglass
4	Gasket	IT 150, asbestos free
5	Bolts*	Steel 8.8, galv.

* stainless steel bolts and nuts on request.

TECHNICAL DATA

Size (NPS): 1/2, 3/4, 1, 1 1/2, 2, 2 1/2, 3, 4, 6, 8
 (DN): 15, 20, 25, 40, 50, 65, 80, 100, 150, 200
 Pressure rating: 230 psi
 Temperature (°F): Max. 302, if Borosilicate glasses are used, max. temperature is 350°F
 Flanges: DIN PN16 or ANSI B16.05 class 150
 Face-to-face: EN 558-1 or ANSI B16.10 class 150
 Glass: Pressglass (option: Borosilicate DIN 7080)

FEATURES

The sight glass type SG-S is made from a heavy duty carbon steel welded construction. The lining is isostatically moulded PTFE with a minimal wall thickness of 0,16 inch. The large sight glasses allow a visual identification of flow. It can be installed in any direction.

PRESSURE - TEMPERATURE DIAGRAM

