

→ Series 852

852

Safety valves made of
gunmetal, angle-type with
flange connections



■ SUITABLE FOR

Liquids neutral and non-neutral

Air, gases and vapours neutral and non-neutral

Steam



■ EXAMPLES OF USE

For the protection of:

- pressure tanks and -systems for neutral / non-neutral vapours, gases and liquids
 - steam boilers and steam plants
 - bulk transport vehicles for liquid, granular and dusty goods¹
- Please observe plant-specific regulations and use of appropriate valve version and sealing material.

- pressure booster plants (water/air-side)
- fire-fighting equipment
- industrial- and commercial boiler plants
- shipbuilding industry and marine equipment
- pump protection

Safety valves are set and sealed at the factory.



■ MATERIAL



■ SPECIFICATION



DN 40 and DN 50



- 60°C to + 225°C
depending on version



0,5 – 25 bar

■ APPROVALS

TÜV-Type test approval 2007

D/G, F, F/K/S¹

EU type examination

S/G, L, F/K/S¹

TR ZU 032/2013 - TR ZU 010/2011

D/G (S/G), F (L), F/K/S¹

Requirements

AD 2000 Data sheet A2

DIN EN ISO 4126-1

TRD 421

PED 2014/68/EU

TRB 801 No. 22 and No. 23¹

KGS AA 319

Classification society

DNV

DNV

Lloyd's Register EMEA

LR EMEA

American Bureau of Shipping

ABS

Bureau Veritas

BV

Russian Maritime Register of Shipping

RS

Registro Italiano Navale

RINA

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Gunmetal	CC499K	CC499K
Outlet body	Gunmetal	CC499K	CC499K
Internal parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302
Bellows (optional)	Stainless steel	1.4571	316 Ti

¹only for versions with bellows

Series 852 ■ VALVE VERSION

s	non-gastight version of spring housing	for neutral media without counter pressure.
b	with bellows	for neutral and non-neutral media and/or counter pressure up to 4 bar. Spring, moving parts and the environment are protected from being affected by the medium.
t	gastight version of spring housing	for neutral and non-neutral media without counter pressure. The environment is protected from being affected by the medium.
tb	gastight version with bellows	for neutral and non-neutral an particularly for flammable, toxic and environmentally hazardous media and/or counter pressure up to 4 bar. Spring, moving parts and the environment are protected from being affected by the medium. Double gastight.

■ MEDIUM

G	gaseous	Air, vapours, gases and - depending on safety valve version and seal - also for steam
F	liquid	The temperature of the medium under atmospheric pressure must not reach boiling point
GF	gaseous and liquid	Air, vapours, gases, steam and liquids

■ TYPE OF LIFTING MECHANISM

L	Standard with lifting lever
0	without lifting device

■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN		40	50
Inlet		40	50
Outlet	65	■	
	80		■

■ CONNECTION TYPE INLET / OUTLET FLANGE CONNECTIONS

FCD4A / FCD2A	Flange connection DIN EN 1092-3 PN40 sealing strip form B / Flange connection DIN EN 1092-3 PN16 sealing strip form B
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■ SEALS

NBR	Nitrile rubber	Elastomere moulded seal with metallic support	-30°C to +130°C
EPDM	Ethylene propylene diene	Elastomere moulded seal with metallic support	-40°C to +170°C
FKM	Fluorocarbon	Elastomere moulded seal with metallic support	-20°C to +200°C
PTFE	Polytetrafluoroethylene	Flat seal	-60°C to +225°C
FFKM	Perfluorinated rubber	Elastomere moulded seal with metallic support	-10°C to +225°C
MD	Metal-to-metal sealing	Flat seal	-60°C to +225°C

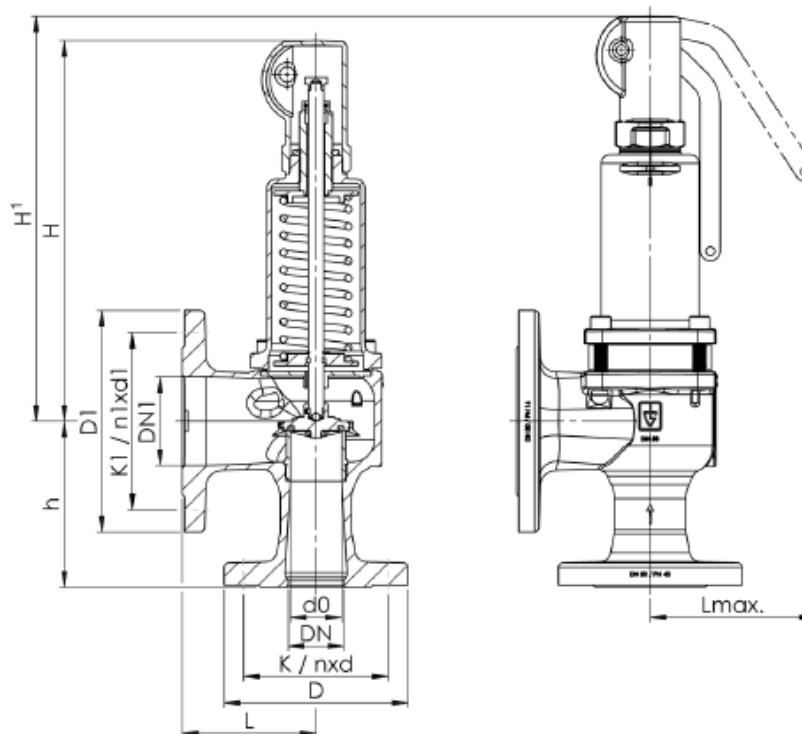
■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 852: Connection, installation dimensions, ranges of adjustment

Nominal diameter	DN	40	50
Connection DIN EN 1092	DN / PN	40 / 40	50 / 40
Outlet DIN EN 1092	DN / PN	65 / 16	80 / 16
Installation dimensions in mm	L	115	120
	Lmax	150	150
	H / H'	345 / 362	345 / 362
	h	140	150
	D	150	165
	D1	185	200
	K / nxd	110 / 4x18	125 / 4x18
	K1 / n1xd1	145 / 4x18	160 / 8x18
	d0	37	46
Weight	kg / kg ¹	17 / 18	19 / 20
Range of adjustment	bar	0,5-25	0,5-25

¹Details for the version with bellows

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series 852 ■ INDIVIDUAL SELECTION / VALVE CONFIGURATION

Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
852	s	G	L	50	FCD4A	FCD2A	50	80	PTFE	AKL	7,5	2
852	b	F	L	40	FCD4A	FCD2A	40	65	EPDM		5,0	4
852					FCD4A	FCD2A						
852					FCD4A	FCD2A						

■ TECHNICAL FINISHES, VARIANTS, ACCESSORIES

AKL	Connection for condensate in the outlet body G 1/4"	☐
		☐
		☐

■ PROPERTIES

G0X	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	☐	P03	Galvanically nickel-plated finish	☐
P01	Oil- and grease-free production	☐	P04	Chrome-plated finish	☐
P02	Chemically nickel-plated finish	☐			☐

■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	☐	C07	SIL evaluation relating to IEC 61508-2	☐
C02	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	☐	C09	Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204	☐
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	☐	C10	Certificate of oil- and grease free production	☐
C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	☐	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	☐
C06	ATEX evaluation acc. to 2014/34/EU	☐			☐

■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	☐	AK1	Det Norske Veritas (DNV) type approval	☐
AA2	TÜV component test acc. to VdTÜV specification sheet SV 100	☐	AK2	Lloyd's Register (LR) type approval	☐
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	☐	AK3	American Bureau of Shipping (ABS) type approval	☐
		☐	AK4	Bureau Veritas (BV) type approval	☐
		☐	AK5	Russian Maritime Register of Shipping (RMRS) type approval	☐
		☐	AK6	Registro Italiano Navale (RINA) type approval	☐
		☐	AL	Individual inspection by notified body inspector – (body to be indicated):	☐

■ ENQUIRY

■ CAPACITY TABLE ACC. TO ISO 4126-1 / AD2000 A2

Series 852: Blowing-off rates at 10% above set pressure

Nominal diameter DN		40			50		
Set pressure bar		I	II	III	I	II	III
Air I Nm ³ /h	0,5	667	503	23	995	750	36
	1	983	785	32	1472	1176	49
	1,5	1299	1032	39	1948	1547	60
Steam II kg/h	2	1615	1273	45	2461	1939	69
	2,5	1926	1510	50	2926	2294	77
	3	2208	1726	55	3404	2661	85
Water III m ³ /h	3,5	2491	1937	59	3839	2985	91
	4	2773	2151	63	4275	3315	98
	4,5	3056	2364	67	4710	3643	104
	5	3338	2575	71	5146	3970	109
	5,5	3621	2789	74	5581	4299	114
	6	3903	3003	77	6016	4629	120
	6,5	4186	3212	81	6452	4951	124
	7	4468	3420	84	6887	5272	129
	7,5	4751	3632	86	7323	5598	134
	8	5033	3843	89	7758	5923	138
	8,5	5316	4053	92	8194	6247	142
	9	5598	4263	95	8629	6570	146
	9,5	5881	4472	97	9064	6893	150
	10	6163	4681	100	9500	7215	154
	11	6728	5097	105	10371	7856	162
	12	7293	5511	109	11241	8494	169
	13	7858	5928	114	12112	9138	176
	14	8423	6348	118	12983	9784	183
	15	8988	6763	122	13854	10425	189
	16	9553	7181	126	14725	11069	195
	17	10118	7586	130	15595	11693	201
	18	10683	8002	134	16466	12334	207
	19	11248	8416	138	17337	12973	213
	20	11813	8835	141	18208	13617	218
	21	12378	9253	145	19079	14261	224
	22	12943	9670	148	19949	14905	229
	23	13508	10087	151	20820	15547	234
	24	14073	10503	155	21691	16190	239
	25	14638	10920	158	22562	16831	244