

→ Series 413

413

Safety valves
made of stainless steel,
atmospheric discharge,
with threaded connections



■ SUITABLE FOR

Air, gases and vapours neutral



■ EXAMPLES OF USE

For the protection of:

- stationary pressure tanks and
- bulk transport vehicles

for liquid, granular and dusty media. Please observe plant-specific regulations and use of appropriate valve version and sealing material.

- stationary silos
- bulk transport vehicle manufacturers and service companies
- paint spray shops
- secondary areas in the food-, pharmaceutical- and cosmetics-industries

Safety valves are set and sealed at the factory.

■ APPROVALS

TÜV Type test approval 2003

D/G, F/K/S

EU type examination

S/G, F/K/S

Requirements

AD 2000 Data sheet A2
TRB 801 Nr. 22 and Nr. 23
DIN EN ISO 4126-1

PED 2014/68/EU

Classification society

DNV	DNV
Lloyd's Register EMEA	LR EMEA
American Bureau of Shipping	ABS
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS

CE 0035

EAC

■ MATERIAL



■ SPECIFICATION



1/2" – 2"



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



0,2 – 6 bar

■ MATERIALS

Component	Material	DIN EN	ASME
Inlet body	Stainless steel	1.4404	316 L
Outlet body	Stainless steel	1.4404	316 L
Internal parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302
Deflector	Stainless steel	1.4301	304
Sealing cap	Stainless steel	1.4301	304

m	with diaphragm	cylindrical form, atmospheric discharge, for air and similar neutral gases. Spring and moving parts protected from being affected by the medium. Standard version with deflector made of stainless steel.
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■ MEDIUM

G	gaseous	Air and similar neutral gases
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■ TYPE OF LIFTING MECHANISM

K	Standard with twist-type lifting mechanism
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■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter DN	15	20	25	32	40	50
Inlet	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Atmospheric discharge via outlet apertures	■	■	■	■	■	■

■ TYPE OF CONNECTION INLET / OUTLET THREADED CONNECTIONS

m / –	Standard	Male thread BSP-P / –	DIN EN ISO 228-1 / –
BSP-Tm / –		Male thread BSP-T / –	DIN EN 10226, ISO 7-1 / –
NPT-m / –		Male thread NPT / –	ANSI B1.20.1 / –

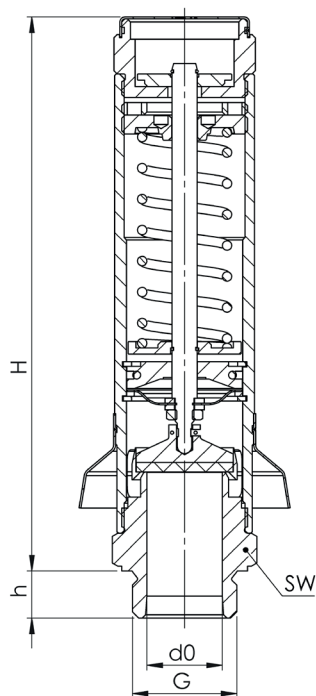
■ SEALS

FKM	Fluorocarbon	Elastomere flat seal	–20°C to +200°C
PTFE	Polytetrafluoroethylene	Flat seal from 1 bar	–60°C to +225°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series 413: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	DN	15	20	25	32	40	50
Connection DIN EN ISO 228	G	1/2" (15)	3/4" (20)	1" (25)	1 1/4" (32)	1 1/2" (40)	2" (50)
Installation dimensions in mm	H	144	177	177	177	177	282
	h	12	15	15	22,5	22,5	26
	SW	32	41	41	55	55	80
	d0	14	20	24	31	31	48
Weight	kg	0,6	1,3	1,3	2,6	2,6	5,4
Range of adjustment	bar	0,2-6	0,2-6	0,2-6	0,2-6	0,2-6	0,2-6

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection size		Seal	Options	Set pressure	Quantity
					Inlet	Outlet	Inlet	Outlet				
413	m	G	K	32	m	–	32	–	FKM		2,0	5
413	m	G	K			–		–				
413	m	G	K			–		–				
413	m	G	K			–		–				

■ PROPERTIES

GOX	Especially for gaseous O2 applications by employment of specific materials including oil- and grease free production process	☐		☐
P01	Oil- and grease-free production	☐		☐
		☐		☐

■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	☐	C06	ATEX evaluation acc. to 2014/34/EU	☐
C02	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	☐	C07	SIL evaluation relating to IEC 61508-2	☐
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	☐	C09	Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204	☐
C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	☐	C10	Certificate of oil- and grease free production	☐
C05	Manufacturer certification (FDA, USP 3, 3-A,...), Please indicate description of certificate:	☐	C11	Certification of the production process especially for gaseous oxygen applications by employment of specific materials	☐

■ 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):	☐

Series 413: Blowing-off rates at 10% above set pressure							
Nominal diameter DN		15	20	25	32	40	50
Set pressure bar							
Air Nm³/h	0,2	61	167	240	401	401	768
	0,3	76	189	272	453	453	827
	0,4	88	205	296	493	493	887
	0,5	99	222	320	534	534	946
	0,6	110	243	351	585	585	1005
	0,7	121	262	377	629	629	1064
	0,8	129	280	404	673	673	1123
	0,9	138	299	431	719	719	1182
	1	147	319	459	766	766	1370
	1,2	168	357	514	858	858	1514
	1,4	186	396	571	952	952	1658
	1,6	208	437	629	1049	1049	1903
	1,8	225	478	688	1148	1148	2055
	2	245	520	749	1249	1249	2325
	2,5	291	617	889	1483	1483	2724
	3	338	717	1032	1723	1723	3177
	3,5	386	809	1165	1943	1943	3583
	4	436	923	1330	2219	2219	4056
	4,5	480	1018	1465	2445	2445	4469
	5	524	1112	1601	2671	2671	4962
	5,5	569	1206	1736	2897	2897	5382
	6	613	1300	1872	3123	3123	5802