

TYPE APPROVAL CERTIFICATE

Certificate no.:
TAP00002DZ
Revision No:
2

This is to certify:
that the Safety Valve

with type designation(s)
30 BG I to BG IV [30.1; 30.2; 30.7], 31 BG I to BG IV [31.1; 31.2; 31.7], 32 BG I to BG IV [32.1; 32.2; 32.7], 10 BG I to BG II [10.1; 10.2; 10.6; 10.7; 10.8]

issued to

Niezugodka GmbH
HAMBURG, Germany

is found to comply with

DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV rules for classification – Ships Pt.4 Ch.7 Pressure equipment
DNV class programme DNV-CP-0186 – Type approval – Valves

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Type:

30 BG I to BG IV [30.1; 30.2; 30.7]
31 BG I to BG IV [31.1; 31.2; 31.7]
32 BG I to BG IV [32.1; 32.2; 32.7]
10 BG I to BG II [10.1; 10.2; 10.6; 10.7; 10.8]

K. factor:

see certificate
see certificate
see certificate
see certificate

Issued at **Hamburg** on **2026-08-27**

This Certificate is valid until **2031-08-26**.

DNV local unit: **Hamburg – CMC North/East**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

for **DNV**



Digitally Signed By:
Sven Klinger
Location: DNV Hamburg,
Germany

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Safety valves type:

30 BG I, to BG IV [30.1; 30.2; 30.7] - flanged;
31 BG I to 31 BG IV [31.1; 31.2; 31.7] - flanged;
32 BG I to IV [32.1; 32.2; 32.7] - flanged;
10 BG I [10.1; 10.2; 10.6; 10.7; 10.8] to 10 BG II [10.1; 10.2; 10.7] - threaded
for relief of steam and non - flammable gas and non - boiling liquids.

Technical Data:

Safety valve type	Working temperature [°C]	Set pressure [bar]
30.1 and 31.1	-10°C to + 280°C	0,1 to 40
30.2 and 31.2	-60°C to + 280°C	
30.7 and 31.7	-200°C to + 280°C	

Type 30 BG I:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 15 / DN 15	16 - 100 / 150 - 600	0,45 (D/G); 0,32 (F) *
DN 20 / DN 20		0,45 (D/G); 0,32 (F) *
DN 25 / DN 25		0,38 (D/G); 0,29 (F) *
DN 25 / DN 25		0,38 (D/G); 0,22 (F) *

Type 31 BG I:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 15 / DN 20	16 - 100 / 150 - 600	0,45 (D/G); 0,32 (F) *
DN 20 / DN 25		0,38 (D/G); 0,29 (F) *
DN 20 / DN 25		0,28 (D/G); 0,22 (F) *

* [D/G: Service for steam and non - flammable gas; F: Service for non - boiling liquid]

Materials:

Type 30 BG I	Type 31 BG I	Inlet body	Outlet body
30.1	31.1	1.0460	5.3103
30.2	31.2	1.4571	1.4581
30.7	31.7	1.4571	1.4308

Technical Data:

Safety valve type	Working temperature [°C]	Set pressure [bar]
30.1 and 31.1	-10°C to + 350°C	0,05 to 40
30.2 and 31.2	-60°C to + 400°C	
30.7 and 31.7	-200°C to +300°C	

Type 30 BG II:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 32 / DN 32	16 - 100 / 150 - 600	0,42 (D/G); 0,35 (F)
DN 32 / DN 32		0,31 (D/G); 0,24 (F)
DN 40 / DN 40		0,41 (D/G); 0,31 (F)
DN 40 / DN 40		0,29 (D/G); 0,23 (F)

Type 31 BG II:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 25 / DN 32	16 - 100 / 150 - 600	0,42 (D/G); 0,35 (F)
DN 32 / DN 40		0,41 (D/G); 0,31 (F)

Materials:

Type 30 BG II	Type 31 BG II	Inlet body	Outlet body
30.1	31.1	1.0460, 1.0619	1.0619
30.2	31.2	1.4571, 1.4581	1.4581
30.7	31.7	1.4571	1.4308

Type 30 BG III:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 50 / DN 50	16 - 100 / 150 - 600	0,39 (D/G); 0,28 (F)
DN 50 / DN 50		0,31 (D/G); 0,23 (F)
DN 65 / DN 65		0,31 (D/G); 0,23 (F)
DN 65 / DN 65		0,26 (D/G); 0,21 (F)

Type 31 BG III:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 40 / DN 50	16 - 100 / 150 - 600	0,39 (D/G); 0,28 (F)
DN 50 / DN 65		0,31 (D/G); 0,23 (F)

Materials:

Type 30 BG III	Type 31 BG III	Inlet body	Outlet body
30.1	31.1	1.0460, 1.0619	1.0619
30.2	31.2	1.4571, 1.4581	1.4581
30.7	31.7	1.4571	1.4308

Type 30 BG IV:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 80 / DN 80	16 - 100 / 150 - 600	0,45 (D/G); 0,33 (F)
DN 80 / DN 80		0,39 (D/G); 0,27 (F)
DN 100 / DN 100		0,43 (D/G); 0,30 (F)
DN 100 / DN 100		0,39 (D/G); 0,26 (F)
DN 100 / DN 100		0,41 (F)

Type 31 BG IV:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 65 / DN 80	16 - 100 / 150 - 600	0,45 (D/G); 0,33 (F)
DN 80 / DN 100		0,43 (D/G); 0,30 (F)

Materials:

Type 30 BG IV	Type 31 BG IV	Inlet body	Outlet body	Bonnet
30.1	31.1	1.0460, 1.0619	1.0619	1.0255 & 1.0460
30.2	31.2	1.4571, 1.4581	1.4581	1.4571
30.7	31.7	1.4571	1.4308	1.4571

Technical Data:

Safety valve type	Working temperature [°C]	Set pressure [bar]
32.1	-10°C to + 350°C	0,05 to 250
32.2	-60°C to + 400°C	
32.7	-200°C to + 300°C	

Type 32 BG I:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 15 / DN 25	16 - 250 / 150 - 2500	0,78 (D/G)
DN 15 / DN 25		0,57 (D/G); 0,41 (F)

Materials:

Type 32 BG I	Inlet body	Outlet body
32.1	1.0460	5,3106, 5.3103
32.2	1.4571	1.4581
32.7	1.4571	1.4308

Type 32 BG II:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 20 / DN 32	16 - 100 / 150 - 600	0,70 (D/G); 0,54 (F)
DN 25 / DN 40		0,54 (D/G); 0,44 (F)

Materials:

Type 32 BG II	Inlet body	Outlet body
32.1	1.0460	1.0619
32.2	1.4571	1.4581
32.7	1.4571	1.4308

Type 32 BG III:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 32 / DN 50	16 - 100 / 150 - 600	0,70 (D/G); 0,49 (F)
DN 40 / DN 65		0,55 (D/G); 0,37 (F)

Materials:

Type 32 BG III	Inlet body	Outlet body
32.1	1.0460	1.0619
32.2	1.4571	1.4581
32.7	1.4571	1.4308

Type 32 BG IV:

Nominal Dimensions DN Inlet/ DN Outlet	Nominal pressures PN [DIN/ANSI]	Coefficients
DN 50 / DN 80	16 - 100 / 150 - 600	0,60 (D/G); 0,45 (F)
DN 50 / DN 80		0,51 (F)
DN 65 / DN 100		0,56 (D/G); 0,43 (F)
DN 65 / DN 100		0,59 (F)
DN 65 / DN 100		0,61 (D/G); 0,42 (F)

Materials:

Type 32 BG IV	Inlet body	Outlet body	Bonnet
32.1	1.0460, 1.0619	1.0619	1.0255 & 1.0460
32.2	1.4571, 1.4581	1.4581	1.4571
32.7	1.4571	1.4308	1.4571

Technical Data:

Safety valve type	Working temperature [°C]	Set pressure [bar]
10.1	-10°C to +350°C	0,07 to 500
10.2	-60°C to +400°C	
10.6	-60°C to +400°C	
10.7	-273°C to +300°C	
10.8	-10°C to +300°C	

Type 10 BG I:

Inlet (G/NPT)	Outlet (G/NPT)	Nozzle diameter do [mm]	Set pressures [bar(g)]	Coefficients
3/8" 1/2" 3/4" 1"	3/4"	6	15,5 - 500	0,64 (D/G); 0,50 (F)
		8	3,0 - 250	0,42 (D/G); 0,29 (F)
		10	0,15 - 140	0,37 (D/G); 0,29 (F)
1/2"	3/4"	12,5	0,15 - 100	0,29 (D/G); 0,21 (F)
3/4"				
1"				
3/4"	3/4"	16	0,07 - 3,0	0,17 (D/G); 0,14 (F)
1"				
3/8" 1/2" 3/4" 1"	1/2"	8	3,0 - 250	0,42 (D/G); 0,29 (F)
		10	0,15 - 140	0,37 (D/G); 0,29 (F)
	1/2"	1/2"	12,5	0,15 - 100
3/4"				
1"				
3/4"	1/2"	16	0,07 - 3,0	0,17 (D/G); 0,14 (F)
1"				

Materials:

Type 10 BG I	Inlet body	Outlet body
10.1	1.4571	5.3106, 5.3103
10.2	1.4571	1.4581
10.6	2.4610	1.4581
10.7	1.4571	1.4308
10.8	3.7035	1.4581

Type 10 BG II:

Inlet (G/NPT)	Outlet (G/NPT)	Nozzle diameter do [mm]	Set pressures [bar(g)]	Coefficients
1/2" 3/4" 1"	1"	12,5	0,10 - 70	0,39 (D/G); 0,33 (F)
3/4" 1" 1 1/4"	1"	16	0,10 - 32	0,21 (D/G); 0,16 (F)
1" 1 1/4"	1"	20	0,10 - 20	0,11 (D/G); 0,08 (F)
1/2" 3/4" 1"	1"	14 (Bellows)	7,0 - 20	0,09 (D/G); 0,07 (F)
3/4" 1" 1 1/4"	1"	16 (Bellows)	1,5 - 16	0,08 (D/G); 0,08 (F)

Materials:

Type 10 BG II	Inlet body	Outlet body
10.1	1.4571	5.3106, 5.3103
10.2	1.4571	1.4581
10.7	1.4571	1.4308

Application

The safety valve type: 30 BG I, to BG IV [30.1; 30.2; 30.7] - flanged; 31 BG I to 31 BG IV [31.1; 31.2; 31.7] - flanged; 32 BG I to IV [32.1; 32.2; 32.7] - flanged; 10 BG I [10.1; 10.2; 10.6; 10.7; 10.8] to 10 BG II [10.1; 10.2; 10.7] - threaded are type approved for applications in piping systems and on pressure vessels as specified in the applicable DNV Rules on the first page of this certificate.

Operating media: Air, steam, non - flammable gas and non - boiling liquids.

Limitation

The safety valves may not be used for operating media specified as dangerous and toxic fluids as well as cryogenic and flammable gases subjected to ship systems covered by the IGC Code and DNV Rules Pt. 5, Ch. 7 - "Liquefied gas tankers" as well as IGF Code and DNV Rules Pt.6 Ch.2, Sec. 5 - "Gas fuelled ship installations".

The selection of the safety valves for the corresponding service and operation conditions as well as right installation under consideration of the used materials and media to be discharged have to be in compliance with the instructions of the manufacturer.

For safety valves fabricated of grey cast iron and nodular cast iron the requirements provided in DNV Rules Pt. 4 Ch.6 - Piping systems, Sec. 2 - Materials are to be observed.

The selections of the safety valves are to be adjusted by the manufacturer.

The manufacturer's instructions for cleaning and maintenance of the safety valves are to be observed.

Safety valves details, e.g., discharge coefficient, flow capacities, etc., are to be taken from the manufacturer's data sheets.

Requirements concerning safety valve installations are to be taken from the manufacturer's operations manuals.

Note¹:

It shall be noted that the selection of the materials considers the applicable service condition with respect to type of media, flow velocity, media temperature and installation area of the piping system or pressure vessel.

In particular, the resistance to corrosion, erosion, oxidation and other deterioration during projected service life are to be considered.

Reference is made to DNV Rules Pt.4, Ch.6 - Sec. 2 - Materials.

Type Approval documentation

TAP00002DZ – Renewal and extension

Type approval application dated 2026-06-24

Type approval assessment report dated 2026-08-13

ISO 9001:2015 Nr. 44100081297 valid until 2029-08-28

Drawings for the extension safety valve type are approved for: 30 BG I, to BG IV [30.1; 30.2; 30.7] - flanged; 31 BG I to 31 BG IV [31.1; 31.2; 31.7] - flanged; 32 BG I to IV [32.1; 32.2; 32.7] – flanged; 10 BG I [10.1; 10.2; 10.6; 10.7; 10.8] to 10 BG II [10.1; 10.2; 10.7] – threaded, see the documentations under job id: 262.-036108-3

Capacity and test report

Pressure-Temperature-Rating

Welding documentation

Material Part list

Specification

Product description table dated 2026-08-18

TAP00002DZ – Modification

Type Approval Application – Modification dated on 2025-01-16

Body (an adaptation outer contour), Bonnet (one-dimensional change to the flange sealing), Nozzle (an addition in the title block – Type designation Typ 32 BG I), Disc ring (edge dimension changed), valves springs (wire diameter)

Drawings Nr.: 001-0260; 001-0262: 001-0649; 001-0665; 030-0369; 063-0057; 003-0073; 081-0110-25; 081-0111-25; 081-0112-25; 081-0113-25; 081-0114-25; 081-0115-25; 081-0116-25; 081-0117-25; 081-0118-25; 081-0119-25; 081-0120-25.

Federtabelle Doc. Nr.: WVV-102 (Type 30, BG I and Type 31, BG I dated 2025- 01-08

Druck-, Temperature – Ratingtabelle – Type 30. 31 BG I

Type Approval Assessment Report – Renewal dated 2021-07-20

ISO 9001:2015 – TÜV Nord Nr.: 44100081297 valid until 2023-08-28

Drawings: Type 30 BG I and Type 31 BG I – 2016

Capacity and test report issued by TÜV Nord - 2012-02 Test nr. 11-713

Old Certificate: 45 363-16 HH

Marking of product

For traceability to this type approval certificate each safety valve is to be provided with a name plate with at least the following data:

- Manufacturer's mark or symbol
- Safety valve type
- Application (D/G: Service for Steam/Gas), (F: Service for non-boiling liquid)
- Set pressure
- Discharge coefficient

Production Place

Niezugodka GmbH

Bargkoppelweg 73
22145 - Hamburg

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the Type Approval are complied with. Refer to DNV-CP-0338, Sec.4.

The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

End of Certificate