



EU TYPE-EXAMINATION CERTIFICATE

Application of the
MSBFS 2011:3 (The European Parliament and the Council Directive 2010/35/EU of 16 June 2010 on Transportable Pressure Equipment)

CERTIFICATE NO.: **S-16-1008709-100, Rev. 11**

This Certificate consists of five (5) pages

THIS IS TO CERTIFY THAT THE EQUIPMENT

Safety Relief Valves

(Reference number see pages 2/5 to 5/5)

WITH THE TYPE DESIGNATION/EQUIPMENT DESCRIPTION

SP, CRV, LCV, VRVD, VRV, VRVR and VRVS

MANUFACTURED BY

GENERANT COMPANY INC.

1865 Route 23 South, P.O. Box 768 - Butler, NJ-07405 - United States of America
1 South Corporate Drive – Riverdale, NJ 07457 - United States of America

is found to comply with the requirements in § 1, chapter 2 (Article 12) and the standards EN 13648-1 and EN ISO 4126-1 (for full variants list refer to Generant TPED Type Approval files).

The equipment has been examined with respect to the procedure of conformity assessment as described in the MSBFS 2011:3 (Directive 2010/35/EU) and the current edition of ADR (1.8.7.2) and RID at the time of issuing this certificate.

APPLICATIONS

Design Pressure min/max: See page 2/5 to 5/5

Design Temp. range: See page 2/5 to 5/5

Further details of the product and conditions for the certification are given overleaf.

This Certificate is valid until: **2036-04-22**

STOCKHOLM , 2026-04-21

SIGNED FOR AND BEHALF OF

KIWA SWEDEN AB

Notified Body No.: 0409



Thierry Tielemans
Senior Design Review Engineer

Notice: The certificate is subject to terms and conditions, if any, overleaf. Any significant changes in design or construction of the product, the quality system or amendments to the MSBFS 2011:3 (Directive 2010/35/EU) or Standards referenced above may render this certificate invalid. The product liability rests with the manufacturer or his representative in accordance with the MSBFS 2011:3 (Directive 2010/35/EU), as amended.



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PRODUCTION AND TESTING AREAS

GENERANT COMPANY INC. - 1865 ROUTE 23 SOUTH, PO BOX 768 - BUTLER, NJ 07405 - UNITED STATES OF AMERICA
 GENERANT COMPANY INC. - 1 SOUTH CORPORATE DRIVE - RIVERDALE, NJ 07457 - UNITED STATES OF AMERICA

EUROPEAN REPRESENTATIVE

DRUKON GMBH, HAUPTSTRASSE 29, 02794 SPITZKUNNERSDORF, GERMANY

LIMITATIONS

The manufacturer is allowed to fix the π mark followed by the Notified Body N° 0409 to the approved equipment's referred as follow:

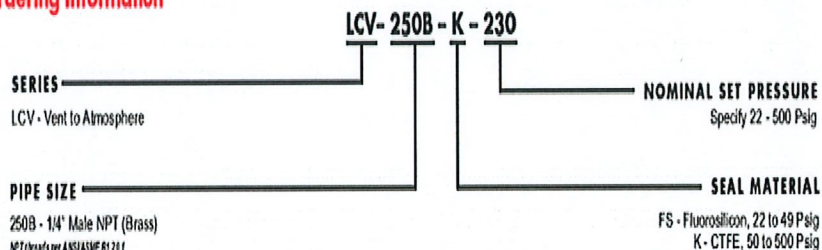
- Liquid Cylinder Valves – Series LCV:

Design pressure: 1.5-34.5 bar

Design temperature: Seal material dependent (FS: -65°C to 176°C, K-PCTFE: -196°C to 74°C)

Fluids: Inert gases, Oxygen and all gases with OP > 21% compatible with approved material (Group 1 – Only Gas)

Ordering Information



PROPER COMPONENT SELECTION - When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, material's compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

Approval valid until: 22.04.2036

Continued on next page



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CERTIFICATE NO.: S-16-1008709-100, Rev. 11

Reference	Fluids	Maximum working pressure	Applicable Standard	Approval valid until
SP-9709	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
CRVP-250B-K-348	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	24,00 bar(g) +/- 3% bar(g) (348,0 Psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
CRVP3-250B-K-232	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	16,00 bar(g) +/- 3% bar(g) (232,0 Psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-41SAEA-N-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-61SAEB-N-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-61SAEB-N-65	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	4,48 bar(g) +/- 3% bar(g) (65,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-1010A-N-80	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	5,52 bar(g) +/- 3% bar(g) (80,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-1001A-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-1004A-45	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	3,10 bar(g) +/- 0,1 bar(g) (45,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-018	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-020	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	1,52 bar(g) +/- 5% bar(g) (22,0 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-021	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-421	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	1,45 bar(g) +/- 5% bar(g) (21,0 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036



EU TYPE-EXAMINATION CERTIFICATE

CERTIFICATE NO.: S-16-1008709-100, Rev. 11

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VRV-1018B-S-30	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRV-2004B-S-22	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	1,52 bar(g) +/- 5% bar(g) (22,0 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	17-05-2035
VRV-2004B-S-30	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	17-05-2035
VRVD-1061A-N-30	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-1061A-N-65	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	4,48 bar(g) +/- 3% bar(g) (65,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2004A-N-51	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	3,52 bar(g) +/- 3% bar(g) (51,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2004A-T-51	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	3,52 bar(g) +/- 3% bar(g) (51,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2004B-N-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2005B-N-70	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	4,83 bar(g) +/- 3% bar(g) (70,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-1061A-N-30	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-1061A-N-65	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	4,48 bar(g) +/- 3% bar(g) (65,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2004A-N-51	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	3,52 bar(g) +/- 3% bar(g) (51,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2004A-T-51	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	3,52 bar(g) +/- 3% bar(g) (51,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036



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CERTIFICATE NO.: S-16-1008709-100, Rev. 11

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VRVD-2004B-N-30	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVD-2005B-N-70	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	4,83 bar(g) +/- 3% bar(g) (70,0 psig +/- 3% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVR-126A-N-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVS-1004B-S-21	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	1,45 bar(g) +/- 5% bar(g) (21,0 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVS-430-N-30 VRVS-431-N-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	2,07 bar(g) +/- 0,1 bar(g) (30,0 psig +/- 1,45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVS-430-N-23.5	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	1,62 bar(g) +/- 5% bar(g) (23,5 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036
VRVS-432-N-22	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	1,52 bar(g) +/- 5% bar(g) (22 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	22-04-2036

- Design temperature ranges (working temperatures): -220°C to +205°C (-364°F to 401°F) depending on the seal material.
B&N: -40°C to 121°C, EP: -54°C to 148°C, FS: -62°C to 176°C, S: -54°C to 205°C, K: -196°C to 74°C, T: -220°C to 205°C.

- The manufacturer is allowed to affix the "π" mark followed by the Notified Body number 0409 (Inspecta Sweden AB) to the approved equipment described in the chapter 3 of the TPED Directive (2010/35/EU).

TYPE APPROVAL DOCUMENTATION

Technical files SP, LCV, VRV, VRVD, VRVR, and VRVS in last approved revision.

TESTS CARRIED OUT

Tests reports according to EN 13648-1 and EN ISO 4126-1 are referred into the technical file of each approved type.

STOCKHOLM , 2026-04-21

Kiwa Sweden AB

Thierry Tielemans
Senior Design Review Engineer