



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.: **16-1008709-100, Rev. 4**

This Certificate consists of four (4) pages

THIS IS TO CERTIFY THAT THE EQUIPMENT

Safety Relief Valves
(Reference number see pages 2/4 to 4/4)

WITH THE TYPE DESIGNATION/EQUIPMENT DESCRIPTION

SP, LCV, VRVD, VRV, VRVR and VRVS

MANUFACTURED BY

Generant Company Inc.
1865 Route 23 South, PO Box 768,
Butler, NJ 07405
United States of America

is found to comply with the requirements in § 1, chapter 2 (Article 12) and the standards
EN 13468-1 and EN ISO 4126-1 (for full variants list refer to Generant TPED Type Approval file).

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) at the time of issuing this
certificate.

APPLICATIONS

Design Pressure min/max: See page 2/4 to 4/4

Design Temp. range: See page 2/4 to 4/4

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

This Certificate is valid until: **22nd April, 2026**

STOCKHOLM , 2019-03-06

Kiwa Inspecta AB
Notified Body No.: 0409

A handwritten signature in black ink, appearing to read "Thierry Tielemans", written over a horizontal line.

Thierry Tielemans



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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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:

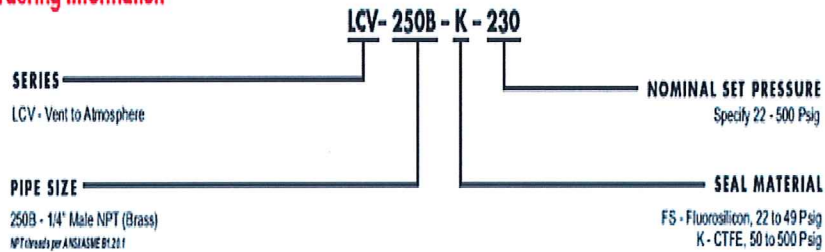
- Liquid Cylinder Valves – Serie LCV:

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)

Fluide: 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, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

Approval valid until: 22.04.2026

Continued on next page



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Reference	Fluid	Maximum working pressure	Applicable Standard	Approval valid until
SP - 9709	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	0,5 to 10,35 bar(g) (7,25 – 150,11 psig)	EN 13648-1 EN ISO 4126-1	22-04-2026
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 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	06-03-2029
VRVD – 2005B – N -70	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	0,5 to 10,35 bar(g) (7,25 – 150,11 psig)	EN 13648-1 EN ISO 4126-1	22-04-2026
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 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	06-03-2029
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 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	06-03-2029
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	06-03-2029
VRV – 1010A-N-80	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	0,5 to 10,35 bar(g) (7,25 – 150,11 psig)	EN 13648-1 EN ISO 4126-1	22-04-2026
VRV-1001A-30	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	0,5 to 10,35 bar(g) (7,25 – 150,11 psig)	EN 13648-1 EN ISO 4126-1	22-04-2026
VRV – 1004A - 45	Inert gases, Oxygen and all gases with OP > 21% compatible with approved material	0,5 to 10,35 bar(g) (7,25 – 150,11 psig)	EN 13648-1 EN ISO 4126-1	22-04-2026
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 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	06-03-2029
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 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	22-04-2026



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Reference	Fluid	Maximum working pressure	Applicable Standard	Approval valid until
VRV-018	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2.07 bar(g) +/- 0.1 bar(g) (30 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	19-09-2027
VRV-020	Inert gases, Oxygen, 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	19-09-2027
VRV-021	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	2.07 bar(g) +/- 0.1 bar(g) (30 psig +/- 1.45 psig)	EN 13648-1 EN ISO 4126-1	19-09-2027
VRV-421	Inert gases, Oxygen, all gases with OP > 21% compatible with approved material	1.45 bar(g) +/- 5% bar(g) (21 psig +/- 5% psig)	EN 13648-1 EN ISO 4126-1	19-09-2027

- Design temperature ranges (working temperatures): -220°C to +205°C (-364°F to 401°F) depending on the elastomer.
T: -23°C to 190°C, 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, 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 , 20198-03-06

Kiwa Inspecta AB

Thierry Tielemans
Senior Auditor