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GOVERNMENT APPROVED TEST LABORATORY

IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

IA CERTIFICATE (IMPORT)

Date Issued: **22 Jul 2025** Certificate Validity: **22 Jul 2028**

IA Certificate Validity: *In accordance with ARP 0108 and the National Code of Practice, import IA certificates has a validity period of three (3) years from the date of issue. The IA certificate's validity period depends on the validity of the international document that it is based upon, and it is invalided should the international certificate be cancelled or the product quality assurance or notification becomes invalid. Equipment imported under a valid IA certificate and handed over to the end user, the IA Certificate validity falls away and the Ex equipmentremains compliant with the relevant standards for its lifetime, provided the equipment is maintained in its original certified configuration. No modifications are allowed. Imported apparatus not sold by the IA certificate expiry date is deemed to not be covered by this IA Certificate and this IA Certificate shall undergo a renewal process. Renewal of this IA certificate is the responsibility of the IA Certificate Holder. The IA Certificate Holder must provide and maintain records to the end-user, of date of sale for traceability purposes.*

Certificate Number:	**S-XPL/22.1472 X** Issue Number: **1**
Equipment:	**VG9000F ("ValvGuard") series safety valve controllers**
Model / Type:	**VG9200F series, types VG92..FX.. and VG9300F series, types VG93..FX..**
IA Certificate Holder:	**Valmet South Africa (Pty) Ltd**
IA Certificate Holder Location:	**237 Albert Amon Road, Meadowdale, Germiston**
Manufacturer:	**Valmet Flow Control Oy**
Manufacturer Location:	**Vanha Porvoontie 229, Vantaa FI-01380, Finland**
Serial No:	All serial numbers, imported between issued- and validity date and all serial numbers covered by either valid QAN or QAR.

Identified by Inspection Authority Number
S-XPL/22.1472 X

And as described in the Explolabs file number **XPL/23106/22.1472 Issue 1** is hereby certified "Explosion Protected (Refer to clause 1, for Ex Rating)", having been examined and inspected in accordance with the relevant requirements of the South African National Standards.

SANS 60079-0: 2019 Ed 6 **IEC 60079-0: 2017 Ed 7**	Explosive atmospheres Part 0: Equipment — General requirements
SANS 60079-11: 2012 Ed 4 **IEC 60079-11: 2011 Ed 6**	Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i"

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
Very high	Ga Group II	Two independent means of protection or safe even when two faults occur independently of each other	Equipment remains functioning in zones 0, 1 and 2	T6(85°C) … T4(135°C)
Very high	Da Group III		Equipment remains functioning in zones 20, 21 and 22	T95°C … T125°C
High	Gb Group II	Suitable for normal operation and frequently occurring disturbances or equipment where faults are normally taken into account	Equipment remains functioning in zones 1 and 2	T6(85°C) … T4(135°C)
High	Db Group III		Equipment remains functioning in zones 21 and 22	T95°C … T125°C

1. GENERAL

The marking of the VG9000F ("ValvGuard") series safety valve controllers shall include the following:
Ex ia IIC T6...T4 Ga
Ex ia IIIC T95 °C...T125 °C Da
Ex ib IIC T6...T4 Gb
Ex ib IIIC T95 °C...T125 °C Db

VG9000F ("ValvGuard") series safety valve controllers are intended to control on/off valves in hazardous industrial areas. FISCO compliant Fieldbus protocol has been utilized in the controllers. In addition with distributed control system (DCS), the Fieldbus is used for supplying power to assigned functions of the equipment, e.g. for diagnostics and valve control. Separate intrinsically safe 24V Safety Control input is used in case of emergency situation for overriding all other tasks. The equipment accommodates three component boards (FBI, SVC and SA 4W), LUI (Local User Interface) module, prestage unit and limit switches (option).

The maximum input values of Fieldbus interface:

Ui ≤ 24 V Ii ≤ 380 mA Pi ≤ 5.32 W Ci < 5 nF Li < 10 µH
(The values comply with the requirements for FISCO Field devices in IEC 60079-11)

The maximum input values of 24 V Safety Control input:
Ui ≤ 28 V Ii ≤ 150 mA Pi ≤ 1 W Ci < 15 nF Li < 175 µH

Based on the following documentation: IECEx EESF 20.0018X Issue No: 2

2. INSTALLATION INSTRUCTIONS

It is the IA Certificate Holder's responsibility to supply OEM installation instructions with each unit offered for sale as required by IEC/SANS 60079-0, clause 30.

The equipment shall be installed, operated, and maintained in accordance with the manufacturer's instructions and the applicable South African standards and regulations.

3. SPECIAL CONDITIONS FOR SAFE USE *(denoted by "X" after certificate number)*

The maximum allowed ambient temperature ranges according to applied T-classes are:

- T_{amb} -40 °C...+50 °C for T6 or T95 °C
- T_{amb} -40 °C...+65 °C for T5 or T110 °C
- T_{amb} -40 °C...+80 °C for T4 or T125 °C

The permissible ambient temperature range depends on the used configuration. The ambient temperature range is marked on the identification plate.

At an ambient temperature ≥ +70 °C, the temperature rating of the connection cable shall be in accordance with maximum ambient temperature range.

For Equipment protection level EPL Ga, the enclosure parts or enclosures made of aluminium alloy shall not be subjected to friction or impacts due to spark ignition hazard.

The safety valve controller shall be connected according to manufacturer's instructions.

The safety valve controller shall not be subject to prolific charge generating mechanism by dust.

4. CONDITIONS OF CERTIFICATION

This approval is granted based on the submitted documentation.

Any modifications or alterations to the equipment will invalidate this IA Certificate.

The Certificate Holder is responsible for maintaining accurate records of the equipment and this IA Certificate.

All production units must be covered by either a QAN (Quality Assurance Notification) or QAR (Quality Assurance Report).

Renewal: This IA certificate may be renewed under a valid Quality Assurance Notification (QAN) or Quality Assurance Report (QAR). Imported apparatus not sold by the IA certificate expiry date must undergo this renewal process. This condition remains the responsibility of the IA Certificate Holder. Renewal of this IA certificate is the responsibility of the IA Certificate Holder.

Renewal involves a document review, including:

- Verification of the latest ATEX/IECEx certificate.
- Confirmation of a valid QAN/QAR.

Certificate holders are responsible for submitting these documents.

5. MARKING

The equipment shall bear the manufacturer's original marking plate containing all relevant Ex-certification details (applicable under the ATEX Directive). The following (or similar) information shall be clearly and permanently marked on all units:

IA Certificate Holder : Valmet South Africa (Pty) Ltd
Ex Rating : Ex ia IIC T6...T4 Ga
Ex ia IIIC T95 °C...T125 °C Da
Ex ib IIC T6...T4 Gb
Ex ib IIIC T95 °C...T125 °C Db
IA Certificate No : S-XPL/22.1472 X

This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided that the apparatus is used as relevant in accordance with:

i) SANS 10086 and IEC/SANS 61241-14 requirements as applicable;
ii) Any conditions mentioned in the above report;
iii) Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and
iv) Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.
v) A revision certificate replaces all previous versions of the certificate.
vi) * - Only covers equipment Imported between the “Issued” and “Expire” dates.
vii) If and when your *QAN (Quality Assurance Notification) or QAR (Quality Assurance Report)* Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted, the existing IA Certification will then be cancelled. It is thus the Certificate Holder’s responsibility to always submit the updated and valid QAN/QAR certificate(s) to Explolabs (Pty) Ltd

Reviewed by:

CC Lourens
Technical Specialist
EXPLOLABS EXPLOSION PREVENTION SERVICES

Product type marking nomenclature:

Brands 1	Diagnostic variants: 2	Enclosures: 3	Spool valve sizes: 4	Communication: 5	Approval 6	Options: 7	Limit switch type: 8
VG -> ValvGuard	9 -> Intelligent Valve controller	2 -> Die cast aluminum. alloy 3 -> Stainless steel	12 -> Restricted capacity 15-> Standard capacity. 35 ->High capacity. 37 -> Extended capacity	F -> Foundation Fieldbus H1	X -> IECEx / ATEX certified product	J -> External Junction box (Table 1.)	Ref. Table 2.

Table 1. Option J Junction Box types by International Metal Engineering Pte

IME 7080AM-03-22 or IME 7080TM-03-22 (IECEx SIR 07.0111U Issue 3.)
Ex d IIC Gb / Ex tb IIIC Db IP68; Ta = -40°C to +85°

Table 2. Optional Inductive Limit Switch types for the certified types:
Note! Limit switch's temperature range and electrical data must be verified from its certificate

Neles type code	Manufacturer of switch	Type of switch	ATEX and IECEx certifications of switch		Classification	Electrical data					Tamb			
						Ui (V)	Ii (mA)	Pi (mW)	Li (µH)	Ci (nF)	Tmin (C)	T6 (C)	T5 (C)	T4 (C)
I02	Pepperl+Fuchs	NJ2-12GK-SN (2 pcs)	PTB 00 ATEX 2049X	IECEx PTB 11.0092X	Ex ia IIC T6...T1 Ga	16	25	64	150	50	-40	50	64	80
					Ex ia IIC T6...T1 Gb	16	52	169	150	50	-40	50	65	80
I09	Pepperl+Fuchs	NCB2-12GM35-N0 (2 pcs)	PTB 00 ATEX 2048X	IECEx PTB 11.0037X	Ex ia IIC T6...T1 Ga	16	25	64	100	90	-25	50	65	80
					Ex ia IIC T6...T1 Gb	16	52	169	100	90	-25	50	65	80
					Ex ia IIC T6...T1 Gb	16	52	169	150	70	-50/-40[(2	50	65	80
I45	Pepperl+Fuchs	NJ3-18GK-S1N (2 pcs)	PTB 00 ATEX 2049X	IECEx PTB 11.0092X	Ex ia IIC T6...T1 Ga	16	25	64	200	70	-25	50	64	80
					Ex ia IIC T6...T1 Gb	16	52	169	200	70	-25	50	65	80
I57	Pepperl+Fuchs	NJ2-V3-N (2 pcs)	PTB 00 ATEX 2032X	IECEx PTB 11.0021X	Ex ia IIC T6...T1 Ga	16	25	64	50	40	-25	49	61	80
					Ex ia IIC T6...T1 Gb	16	52	169	50	40	-25	45	60	80
I58	Pepperl+Fuchs	NJ2-V3-N (4 pcs)	PTB 00 ATEX 2032X	IECEx PTB 11.0021X	Ex ia IIC T6...T1 Ga	16	25	64	50	40	-25	49	61	80
					Ex ia IIC T6...T1 Gb	16	52	169	50	40	-25	45	60	80
R02 [1)]	StoneL	Maxx-Guard M, SPDT (2 pcs)	n/a	n/a	n/a	30	100	2000	800	66	-40	50	65	80
T01 [1)]	Neles	Position transmitter	n/a	n/a	n/a	30	120	1000	100	66	-40	45	60	80

[1)] StoneL Maxx-Guard M reed switch proximity sensors (R02 and R03) and Neles Position transmitter (T01) have been assessed for the certified valve controller types in the related ExTR