



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx SIR 16.0103X

Issue No: 0

Certificate history:

Issue No. 0 (2016-11-28)

Status: **Current**

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Date of Issue: **2016-11-28**

Applicant: **Galvanic Applied Sciences Inc.**
7000 Fisher Road SE
Calgary
Alberta T2H 0W3
Canada

Equipment: **Nomeure Process Viscometer Model VL800**

Optional accessory:

Type of Protection: **Intrinsically Safe**

Marking:

Ex ia IIB T3 Ga

Ta = -20°C to +175°C

*Approved for issue on behalf of the IECEx
Certification Body:*

N Jones

Position:

Certification Manager

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

sira
CERTIFICATION





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Manufacturer: **Galvanic Applied Sciences Inc.**
7000 Fisher Road SE
Calgary
Alberta T2H 0W3
Canada

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/SIR/ExTR16.0298/00](#)

Quality Assessment Report:

[GB/ITS/QAR14.0026/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Nametre Process Viscometer Model VL800 is designed to measure the viscosity of a process fluid within a container or pipework. The equipment comprises a vibrating rod (which may terminate with a cylinder or sphere depending on the viscosity of the process fluid), a flange, an extension tube and an air or water cooled cylinder (dome or top hat) that houses the drive and sensor coils. The rod is mechanically connected to the coils via a torsion bar. The temperature of the process fluid is measured by an RTD housed at the base of the rod. A further RTD measures the temperature of the coils. The rod, flange, extension tube and cylinder are made of stainless steel.

Refer to the Annexe for Equipment supply and input parameters

SPECIFIC CONDITIONS OF USE: YES as shown below:

1.	Terminals 1, 4, 5 wrt 3 shall each be supplied from a resistive source that has a minimum value of 310 Ω and does not exceed 9.3 V.
2.	If the temperature of the process fluid is in excess of 200°C but less than 400°C, then the equipment shall be water-cooled with a flow rate of at least 50 ml/min. As an alternative to water-cooling for temperatures between 200°C and 300°C, the equipment may be cooled with air at a flow rate of at least 50 ml/min. In the event of a failure of the cooling fluid, the equipment shall be provided with an interlock that disconnects its power supply.
3.	The user/installer shall ensure that the ambient temperature in the area around the top hat (taking into account any heating effects caused by the process fluid) does not exceed 175°C; in addition, the temperature of the process fluid shall not exceed 400°C.

Annex:

[IECEX SIR 16.0103X Issue 0 Annexe.pdf](#)

Annexe to: IECEx SIR 16.0103X Issue 0
Applicant: Galvanic Applied Sciences Inc.
Apparatus: Nametre Process Viscometer Model VL800



Equipment supply and input parameters

Terminals	U_i	I_i	P_i	C_i	L_i
1 w.r.t. 3*	±9.3 V	30 mA	0.07 W	0	72 mH with a min. resistance of 124.56Ω
2 w.r.t. 3	1.6 V	320 mA	0.13 W	0	72 mH with a min. resistance of 124.56Ω
4 w.r.t. 3*	±9.3 V	30 mA	0.07 W	0	72 mH with a min. resistance of 124.56Ω
5 w.r.t. 3*	±9.3 V	30 mA	0.07 W	0	72 mH with a min. resistance of 124.56Ω
6 w.r.t. 3	1.6 V	300 mA	0.12 W	0	72 mH with a min. resistance of 124.56Ω
7 w.r.t. 3	1.6 V	300 mA	0.12 W	0	72 mH with a min. resistance of 124.56Ω
8 w.r.t. 3	1.6 V	300 mA	0.12 W	0	72 mH with a min. resistance of 124.56Ω
9 w.r.t. 3	1.6 V	300 mA	0.12 W	0	72 mH with a min. resistance of 124.56Ω
10 w.r.t. 3	1.6 V	300 mA	0.12 W	0	72 mH with a min. resistance of 124.56Ω
11 w.r.t. 3	1.6 V	300 mA	0.12 W	0	72 mH with a min. resistance of 124.56Ω

* The equipment shall be supplied from a resistive source having a minimum value of 310 ohms.

Conditions of Manufacture

- i. The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- ii. In accordance with IEC 60079-11:2011 clause 10.3, each manufactured sample of the equipment shall be subjected to an electric strength test using a test voltage of 500 Vac, or 700 Vdc, applied between the all non-ground wires connected together and the enclosure. There shall be no evidence of flashover or breakdown and the maximum current flowing shall not exceed 5 mA.
- iii. In the user manual, the manufacturer shall state the maximum process pressure, which shall not exceed two-thirds of the design pressure of the enclosure.

Date: 28 November 2016

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Sira Certification Service

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