



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx PRE 17.0073X**

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Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2020-03-24)

Issue 1 (2018-09-28)

Issue 0 (2018-01-02)

Date of Issue: 2021-01-29

Applicant: **Algas SDI International LLC**
151 South Michigan Street
Seattle
WA 98108
United States of America

Equipment: **TORREXX Vaporizer**

Optional accessory:

Type of Protection: **Ex d , e, m**

Marking: Ex db mb IIB T2 Gb, T_{amb} -20°C to +60°C or

Ex db mb IIA T2 Gb, T_{amb} -20°C to +60°C or

Ex db eb mb IIA T2 Gb, T_{amb} -20°C to +60°C

Approved for issue on behalf of the IECEx
Certification Body:

Bjørn Spongsveen

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 www.iecex.com or use of this QR Code.



Certificate issued by:

DNV GL Presafe AS
Veritasveien 3
1363 Høvik
Norway





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Manufacturer: **Algas SDI International LLC**
151 South Michigan Street
Seattle
WA 98108
United States of America

Additional
manufacturing
locations:

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 equipment 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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-18:2014 Explosive atmospheres – Part 18: Equipment protection by encapsulation "m"
Edition:4.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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 Reports:

[NO/PRE/ExTR17.0061/02](#)

[NO/PRE/ExTR17.0061/03](#)

Quality Assessment Report:

[NO/PRE/QAR17.0007/01](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The TORREXX is vertical electric single core vaporizer is intended for liquefied petroleum gas and ammonia evaporation. The heater casing made from aluminium includes process (pressure) vessel for process fluid evaporation and box with electrical heater which are welded together and form the flameproof enclosure. Ex certified magnetic valve, cable glands, thread adapters and additional junction box with union for regulation of the liquefied gas flow is evaluated as parts of the assembly. The process vessel is coated with non-conductive material.

The inside of the pressure vessel considered as (process) non-hazardous area.

Equipment is delivering with one free threaded hole intended for appropriate certified cable entry. Use of one Ex certified thread adaptor is allowed.

The threaded openings which are not in use are provided closed with appropriate certified blanking elements.

Type identification: TORREXX

Applicable models:

LPG models (gas group IIB): TX25, TX50, TX100, TX160, TX240, TX320

NH₃ models(gas group IIB): TX19AA, TX38AA, TX75AA, TX120AA, TX180AA, TX240AA

LPG models with additional Ex d box (gas group IIA): TX25S, TX50S, TX100S, TX160S, TX240S, TX320S

NH₃ models with additional Ex d box (gas group IIA): TX19SA, TX38SA, TX75SA, TX120SA, TX180SA, TX240SA

Electrical Data

Supply voltage: 120–480V AC 50/60Hz

Supply current: 10-60 A

Power: 2.9-39.4 kW

Ambient temperature

-20°C to +60°C

Routine tests

Each enclosure must be submitted to routine overpressure test of 11 bar according to IEC 60079-1:2014 clause 16.

Each additional flameproof enclosure must be submitted to routine overpressure test of 13.4 bar according to IEC 60079-1:2014 clause 16.

SPECIFIC CONDITIONS OF USE: YES as shown below:

-The flameproof joints are not intended to be repaired.

-Ambient temperature range: -20°C to +60°C

-Minimum yield stress of the fastenings screws used for enclosure is 646 Mpa.

-The instruction indicates all the necessary information to ensure the installation and use minimize the risk from electrostatic discharge.

-The cable glands provided are suitable only for fixed applications and the cable must be effectively clamped and cleated to prevent pulling and twisting.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Alternative configuration introduced (with assembled additional flameproof enclosure and accessories).