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 DNV 21.0090X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2022-03-22

Applicant: **Nova Smar S/A**
Av. Dr. Antonio Furlan Jr. 1028
14170-480 Sertaozinho-SP
Brazil

Equipment: **Temperature Transmitter (TT, FI & IF)**

Optional accessory:

Type of Protection: **Flameproof Enclosure Ex-db**

Marking: Ex db IIC T6 Gb

-20 °C ≤ Ta ≤ +60 °C

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

Position: **Certification Manager**

Signature:
(for printed version)

Date:
(for printed version)

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 Product Assurance AS
Veritasveien 3
1363 Hovik .
Norway

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Certificate No.: **IECEx DNV 21.0090X**

Date of issue: 2022-03-22 Issue No: 0

Manufacturer: **Nova Smar S/A**
Av. Dr. Antonio Furlan Jr. 1028
14170-480 Sertaozinho-SP
Brazil

Manufacturing locations: **Nova Smar S/A**
Av. Dr. Antonio Furlan Jr. 1028
14170-480 Sertaozinho-SP
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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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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

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 Report:

NO/DNV/ExTR21.0075/00

Quality Assessment Report:

NO/NEM/QAR08.0006/09

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The SMAR TT, FI & IF Series is a flameproof enclosure, intended to transmitter & electrical converters and consists of housing and electronic circuit. The electrical parameters are within the specified limits.

The equipment is manufactured in AISI316/CF-8M or SAE305 or SAE336/ANSI356, closed by removable screwed covers with M76 x 1,27 threads, with or without visor, and the cable entry for electronic circuits is mounted in the wall of the housing with options 1/2"-14 NPT or M20x1,5. Under the one cover, being equipped with an inspection glass, an alphanumeric LCD-display is arranged optionally; under the other cover, terminals for the signal-circuit are arranged.

The TT300 Series are temperature transmitters mainly intended for measurement of temperatureusing RTD's or thermocouples, but can also accept other sensors with resistance or mV output such as: pyrometers, load cells, resistance position indicators, etc. The model TT301 offer digital communication based in HART®, the model TT302 offer digital communication based in Foundation™ Fieldbus and the model TT303 offer digital communication based in PROFIBUS PA.

The FIs and IFs are electrical converters devices for connection to Foundation™ Fieldbus or Profibus PA. The FI302 converts a FIELDBUS signal into a 4 to 20 mA signal. If the frequency converter does not have FIELDBUS capability, the bus signal can be converted into a conventional 4 to 20 mA by the FI302 and has three independent channels, which means that three 4 to 20 mA outputs are available.

The FI303 is a converter mainly intended for interface of a PROFIBUS PA system to control valves, or other actuators. The equipment produces a 4-20 mA output proportional to input received over the PROFIBUS network and has three outputs available.

The IF302 is a converter mainly intended for interface of analog transmitters to a Fieldbus network. The equipment receives a current signal, typically 4-20 mA or 0-20mA, and makes it available to the Fieldbus system. The IF303 is a converter mainly intended for interface of analog transmitters to a PROFIBUS system. The equipment receives a current signal, typically 4-20 mA or 0-20 mA, and makes it available to the PROFIBUS PA network. The digital technology used in the
IF303 enables a single converter to accept three inputs and also provide several types of transfer functions.

However, the assessment has been restricted only to the Ex d requirements.

Type Designations
TT 301, TT 302, TT 303, FI 302, FI 303, IF 302 & IF 303

Electrical Data
28 V DC
12mA, quiescent current consumption: 12 mA for Fieldbus/ Profibus protocol

Degrees of protection (IP Code)
IP66W and IP68W
10m for a period of 24 hours for IP68. Tested in a saturated solution of NaCl 5% w / w, at 35°C for a period of 200 h.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in EN/IEC 60079-1.