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 BVS 19.0015

Issue No: 0

Certificate history:
Issue No. 0 (2019-04-30)

Status: **Current**

Date of Issue: **2019-04-30**

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

Equipment: **Pressure Transmitter type LD 301 ****-****-***-* / LD290 ***-**-** / LD291 ***-**-*****

Optional accessory:

Type of Protection: **Intrinsic Safety "i", Equipment Protection Level (EPL) Ga**

Marking:
Ex ia IIC T4/T5/T6 Ga/Gb / Ex ia I Ma

Approved for issue on behalf of the IECEx Certification Body: Dr Franz Eickhoff

Position: Deputy Head of Certification Body

Signature:
(for printed version)

Date: 2019-04-30

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.

Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

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Certificate No: IECEx BVS 19.0015 Issue No: 0

Date of Issue: **2019-04-30**

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

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 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26 : 2014-10 Edition:3.0	Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga

*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:

DE/BVS/ExTR19.0025/00

Quality Assessment Report:

NO/NEM/QAR08.0006/07

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

The Pressure Transmitter type LD301 ****-****-***-* / type LD29* ***-**-**, which serves for the transmission of pressure measuring data in certified intrinsically safe supply- and signal-circuits, comprises of a tubular light alloy or stainless steel enclosure, which contain printed circuit boards with electronic components closed by means of screwed caps.
Under one cower, being equipped with a window, optionally an LCD-display is arranged; under the other cover, terminals for the intrinsically safe supply- and signal-circuit are arranged.
A cable entry for the intrinsically safe 4 - 20 mA current loop circuit is mounted in the wall of the enclosure.
The wall of the enclosure is flanged to a cast steel enclosure, which contains a mechanical pressure gauge and printed circuit boards with electronic components, embedded in casting compound.
Operating temperature range for Pressure Transmitters equipped with LCD display:
$-10\ °C \leq T_a \leq +60\ °C$
Operating temperature range for Pressure Transmitters without LCD display:
$-40\ °C \leq T_a \leq +85\ °C$
Listing of all components used referring to older standards: Not applicable

Type Code
See Annex

Parameters
See Annex

SPECIFIC CONDITIONS OF USE: NO

Annex:

BVS_19_0015_smar_Annex.pdf

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Certificate No.: **IECEx BVS 19.0015**
Annex

Type Code

1.) Pressure Transmitter type LD301 ****-****-***-*
a bcde-fghi-jkl-m

Asterisk	Feature
a	General model code
b	Code letter for differential-, gage- absolute pressure or differential pressure at high static pressure
c	Code-no. for range
d	Code-no. or letter for mechanical details of diaphragm material and fill fluid (low pressure side)
e	Code-no. / -letter flange(s), adapter(s), drain / vent material
f	Code-no. / -letter O-rings materials
g	Code-no. drain / vent position
h	without LCD-indicator = 0 with LCD-indicator = 1
i	Code-no. /-letter process connections
j	Electrical connections 1/2-14 NPT = 0 other options according to manual = 1 / 2 / 3 M20x1.5 = A Pg 13.5 DIN = B
k	Zero and span adjustments
l	Code-no. mounting brackets for 2" pipe or surface mounting
m	Optional items according to manual

2.) Pressure Transmitter type LD29* ***-**-***
a bcd-ef-ghi

Asterisk	Feature
a	General model code Pure 4 - 20 mA interface = LD290 HART communication = LD291
b	Code letter / number of measuring range
c	Code-no. or letter for mechanical details of diaphragm material and fill fluid
d	Code letter specifying process connection material
e	without LCD-indicator = 0 with LCD-indicator = 1
f	Code letter / number specifying type of process connection
g	Electrical connection 1/2-14 NPT = 0 other options according to manual = 1 / 2 / 3 / 4 / 5 M20x1.5 = A Pg 13.5 DIN = B
h	Code letter / number for Mounting Bracket
i	Optional items or blank for 'no optional items'

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Annex

Parameters

1. Supply- and signal-circuit
designated for the connection to an intrinsically safe 4 to 20 mA current loop

Voltage	U_i	DC	28	V
Current	I_i		93	mA
Effective internal capacitance	C_i	≤	5	nF
Effective internal inductance	L_i		negligible	

2. Maximum permissible power for certified intrinsically safe supply- and signal-circuits as a function of ambient temperature and temperature class

Ambient temperature T_a	Temperature class T	Power P_i
85°C	4	700 mW
50°C	5	700 mW
55°C	5	650 mW
60°C	5	575 mW
65°C	5	500 mW
70°C	5	425 mW
40°C	6	575 mW