



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 PRE 18.0031X

Issue No: 0

Certificate history:

Issue No. 0 (2018-12-07)

Status: **Current**

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Date of Issue: **2018-12-07**

Applicant: **NOVA SMAR S/A**
Dr. Antonio Furnan Jr 1028
Sertaozinho
Brazil

Equipment: **Pressure transmitter LD series**

Optional accessory:

Type of Protection: **Ex db**

Marking:
Ex db IIC T6 Gb Ta : -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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DNV GL Nemko Presafe AS
Veritasveien 3
1363 Høvik
Norway





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Manufacturer: **NOVA SMAR S/A**
Dr. Antonio Furnan Jr 1028
Sertaozinho
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 : 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

*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:

[NO/PRE/ExTR18.0025/00](#)

Quality Assessment Report:

[NO/NEM/QAR08.0006/07](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Product description

The Pressure Transmitter LD290 Series and LD300 Series use the same physical structure in terms of electronic boards and mechanical enclosures and consist in housing, electronic circuit and sensor. To measure the applied pressure, the LD300 Series uses the differential capacitive sensor and the LD290 Series the gauge in-line capacitive sensor.

The model LD290 is a pure 4-20 mA transmitter, the models LD291 and LD301 offer digital communication based in HART®, the models LD292 and LD302 offer digital communication based in Foundation™ Fieldbus and the models LD293 and LD303 PROFIBUS PA.

The superior part is a Flameproof Housing, 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 ½"-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 inferior part is the sensor structure connected through a M46 x 1, 27 thread.

This certificate shall be considered in conjunction with Ex d requirements only.

Type designation

LD 290, 291, 292 & 293 LD 301, 302 & 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.

Ambient temperature:

-20°C to +60°C

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 tables 1 and 2 of EN/IEC 60079-1.



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Additional information:

Technical Documents

Title:	Drawing No.:	Rev. Level:	Date:
Mechanical Drawing LD301/302/303 ATEX/IECEX	101-E-0015	07	15.3.2018
Mechanical Drawing LD290/291/292/293 ATEX/IECEX	101-E-0056	07	15.3.2018
Label Plate LD290 IECEX IP66/68	102A-2103	00	10.8.2018
Label Plate LD290 IECEX IP66/68W	102A-2104	00	10.8.2018
Label Plate LD291 IECEX IP66/68	102A-2105	00	10.8.2018
Label Plate LD291 IECEX IP66/68W	102A-2106	00	10.8.2018
Label Plate LD301 IECEX IP66/68	102A-2107	00	10.8.2018
Label Plate LD301 IECEX IP66/68W	102A-2108	00	10.8.2018
Label Plate LD292 IECEX IP66/68	102A-2109	00	10.8.2018
Label Plate LD292 IECEX IP66/68W	102A-2110	00	10.8.2018
Label Plate LD293 IECEX IP66/68	102A-2111	00	10.8.2018
Label Plate LD293 IECEX IP66/68W	102A-2112	00	10.8.2018
Label Plate LD302 IECEX IP66/68	102A-2113	00	10.8.2018
Label Plate LD302 IECEX IP66/68W	102A-2114	00	10.8.2018
Label Plate LD290 IECEX IP66/68	102A-2103	00	10.8.2018
Label Plate LD290 IECEX IP66/68W	102A-2104	00	10.8.2018



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Label Plate LD303 IECEX IP66/68	102A-2115	00	10.8.2018
Label Plate LD303 IECEX IP66/68W	102A-2116	00	10.8.2018
Boards Arrangements LD290/291	102A-0417	06	19.9.2012
Boards Arrangements LD301	102A-0337	04	19.9.2012
PCB Interconnection LD290/291	102B-0445	06	20.9.2012
PCB Interconnection LD301	102B-0438	04	20.9.2012
Boards Arrangements LD292/293	102A-0599	04	4.10.2016
Boards Arrangements LD302/303	102A-0338	06	4.10.2016
PCB Interconnection LD292/293	102B-0639	04	4.10.2016
PCB Interconnection LD302/303	102B-0439	06	4.10.2016
LM LD290	LM-102-0514	19	27.6.2016
LM LD291	LM-102-0515	19	27.6.2016
LM LD301	LM-102-0516	18	27.6.2016
LM LD292/293/302/303	LM-102-1129	02	10.10.2016
LM General Components Hart	LM-102-0161	04	10.5.2006
LM General Components Fieldbus/Profibus PA	LM-102-0232	03	13.11.2006
Glass	101-A-0637-07	07	2013-04-29