

# EU-Type Examination Certificate

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU
- [3] EU-Type Examination Certificate Number: Presafe 18 ATEX 12410X Issue 0
- [4] Product: Pressure Transmitter
- [5] Manufacturer: NOVA SMAR S/A
- [6] Address: Av. Dr. Antonio Furlan Jr., 1028  
Sertãozinho -SP-14160.000 Brazil.
- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV GL Presafe AS, notified body number 2460, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.  
The examination and test results are recorded in confidential reports listed in section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0:2012/A11:2013 and EN 60079-1:2014
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate .
- [11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:

 II 2 G Ex db IIC T6 Gb Ta -20°C to +60°C

Date of issue:  
2018-12-10



*This certificate may only be reproduced in its entirety and without any change, schedule included.*

Bjørn Spongsveen  
For DNV GL Presafe AS  
The Certificate has been digitally signed.  
See [www.presafe.com/digital\\_signatures](http://www.presafe.com/digital_signatures) for more info

[13]

## Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No.:** Presafe 18 ATEX 12410X Issue 0

## [15] Description of Product

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, 2 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 (according to EN/IEC 60529)

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

[16] **Report No.:** D0003438

[17] **Specific Conditions of Use**

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.

[18] **Essential Health and Safety Requirements**

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

[19] **Drawings and documents**

Number	Title	Rev.	Date
101-E-0015	Mechanical Drawing LD301/302/303 ATEX/IECEx	07	15.3.2018
101-E-0056	Mechanical Drawing LD290/291/292/293 ATEX/IECEx	07	15.3.2018
102A-1455	Label Plate LD290 NEMKO-EXAM/BVS IP66	04	1.8.2018
102A-1511	Label Plate LD290 NEMKO-EXAM/BVS IP66W	04	1.8.2018
102A-1457	Label Plate LD291 NEMKO-EXAM/BVS IP66	04	1.8.2018
102A-1513	Label Plate LD291 NEMKO-EXAM/BVS IP66W	04	1.8.2018
102A-1313	Label Plate LD301 NEMKO-EXAM/BVS IP66/68	04	1.8.2018
102A-1491	Label Plate LD301 NEMKO-EXAM/BVS IP66/68W	04	1.8.2018
102A-1459	Label Plate LD292 NEMKO-EXAM/BVS IP66	04	1.8.2018
102A-1515	Label Plate LD292 NEMKO-EXAM/BVS IP66W	04	1.8.2018
102A-1462	Label Plate LD293 NEMKO-EXAM/BVS IP66	04	1.8.2018
102A-1518	Label Plate LD293 NEMKO-EXAM/BVS IP66W	04	1.8.2018
102A-1312	Label Plate LD302 NEMKO-EXAM/BVS IP66/68	04	1.8.2018
102A-1490	Label Plate LD302 NEMKO-EXAM/BVS IP66/68W	04	1.8.2018
102A-1467	Label Plate LD303 NEMKO-EXAM/BVS IP66/68	04	1.8.2018
102A-1523	Label Plate LD303 NEMKO-EXAM/BVS IP66/68W	04	1.8.2018
102A-0417	Boards Arrangements LD290/291	06	19.9.2012
102A-0337	Boards Arrangements LD301	04	19.9.2012
102B-0445	PCB Interconnection LD290/291	06	20.9.2012
102B-0438	PCB Interconnection LD301	04	20.9.2012
102A-0599	Boards Arrangements LD292/293	04	4.10.2016
102A-0338	Boards Arrangements LD302/303	06	4.10.2016
102B-0639	PCB Interconnection LD292/293	04	4.10.2016
102B-0439	PCB Interconnection LD302/303	06	4.10.2016
LM-102-0514	LM LD290	19	27.6.2016
LM-102-0515	LM LD291	19	27.6.2016
LM-102-0516	LM LD301	18	27.6.2016
LM-102-1129	LM LD292/293/302/303	02	10.10.2016
LM-102-0161	LM General Components Hart	04	10.5.2006

LM-102-0232	LM General Components Fieldbus/Profibus PA	03	13.11.2006
101-A-0637-07	Glass	07	2013-04-29

## [20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue	2018-12-07	D0003438

END OF CERTIFICATE