

[1] EC-TYPE EXAMINATION CERTIFICATE

**[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

- [3] EC-Type Examination Certificate Number:** Nemko 02ATEX035
- [4] Equipment or Protective System:** Pressure Transmitter
- [5] Applicant:** Smar Equipamentos Industriais Ltda.
- [6] Address:** Av. Antonio Furlan Jr., 1028
Sertaozinho SP-14160.000
Brazil
- [5] Manufacturer:** Smar Equipamentos Industriais Ltda
- [6] Address:** Av. Antonio Furlan Jr., 1028
Sertaozinho SP-14160.000
Brazil
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.**
- [8] Nemko AS, notified body number 0470 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.**
- The examination and test results are recorded in confidential report no. 200139262
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**
- CENELEC EN 50014: 1997 + A1: 1999 + A2: 1999 and CENELEC EN 50018: 2000
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.**
- [11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.**
- [12] The marking of the equipment or protective system shall include the following:**

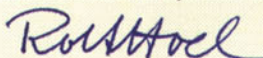


II 2 G

EEx d IIC T6

Oslo 2004-10-04

This certificate replaces version dated 2002-12-12.



Rolf Hoel
Certification Manager

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

[13] Schedule**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX035****[15] Description of Equipment or Protective System**

This Certificate covers Pressure Transmitter with type designations LD301, LD302 and LD303

Type Designation

LD301, LD302 and LD303

Technical Data

U = 28VDC

Ingress Protection Code

IP67 according to EN 60529.

[16] Report No. 200139262

Composed in total 28 pages

Descriptive Documents**LD301:**

101E002903	Rev. 3	18/08/2000	
102B043802	Rev. 2	08/03/01	
102B050601	Rev. 01	21/12/98	2 sheets
102B007308	Rev. 08	07/12/00	2 sheets
102A022601	Rev. 1	07/12/00	6 sheets
102B051305	Rev. 05	28/12/00	6 sheets
102A069200		27/12/00	6 sheets
102B030700		21/01/97	
102B030800		21/01/97	
102A033702	Rev. 2	08/03/01	

LD302/303:

101E001502	Rev. 2	06/04/98	
10B043902	Rev. 2	25/08/00	
102A033802	Rev. 2	25/08/00	
102B050701	Rev. 01	21/12/98	2 sheets
102B007308	Rev. 08	07/12/00	2 sheets
102A022601	Rev. 1	07/12/00	6 sheets
102B020508	Rev. 08	22/12/00	6 sheets
102A032003	Rev. 03	22/12/00	4 sheets
102B004305	Rev. 05	21/01/00	2 sheets
102A022702	Rev. 2	17/02/00	4 sheets
102B030700		21/01/97	
102B030800		21/01/97	

[17] Special conditions for safe use

None

[18] Essential Health and Safety Requirements

See item 9

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SUPPLEMENT 1 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX035****[15] Description of Equipment or Protective System**

This Certificate is extended to include new type designations according to descriptive documents.

Type Designation

LD301 or 4301

LD302

LD303

Technical Data

U=28VDC

Ingress Protection Code

IP67 according to EN 60529.

[16] Report No. 14282**Descriptive Documents**

Number	Rev.	Date	Title /Description	Sheets
101-A-6346-00	-	2003-05-18	LD301 Marking Nemko ATEX	1
101-A-6321-01	-	2003-05-07	4301 Marking Nemko ATEX	1
101-A-6211-01	1	2003-09-18	LD302 Marking Nemko ATEX	1
101-A-6212-01	1	2003-09-18	LD303 Marking Nemko ATEX	1

[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo 2003-11-17

**Rolf Hoel****Certification Department**

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SUPPLEMENT 2 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX035X****[15] Description of Equipment or Protective System**

This Certificate is extended to include:

- "X" (Special Conditions for Safe Use) in the certificate number.
- Revised documents.
- Minor changes of electronic components and PCB layout, which do not affect the intrinsic safety.

Type Designation

LD301, LD302 and LD303

Technical Data

U=28VDC

Ingress Protection Code

IP67 according to EN 60529.

[16] Report No. 63372**Descriptive Documents**

Name/Number	Rev.	Date	Title/Description	Sheets
102B007310	10	2005-01-25	FIELD DEVICES CAPACITIVE SENSE BOARD GLL910	1
102B050603	03	2004-03-30	FIELD DEVICES TERMINAL BLOCK	1
102B030802	02	2004-02-25	TRANSFORMER GENERAL INFORMATION	1
102A041704	04	2005-06-08	LD290/91 BOARDS ARRANGEMENT	1
102B044504	04	0225-06-08	LD290/91 PRINTED CIRCUIT BOARD INTERCONNECTION	1
101A634601	01	2005-12-29	MARKING FM, NEMKO-ATEX E DMT/BVS - ATEX (LD301)	1
101A621102	02	2005-12-29	MARKING NEMKO - ATEX (LD302)	1
101A621202	02	2005-12-29	MARKING NEMKO - ATEX (LD303)	1

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[17] Special Conditions for Safe Use

1. The transmitters are marked with three options for the indication of the protection code.
The certification is valid only when the protection code is indicated in **one** of the boxes following the code.
The following options apply:
 - 1.a. EEx d IIC T6 () with **X** ticked in the parenthesis:
The EEx d IIC T6 protection according to certificate Nemko 02ATEX035X / 02ATEX149X applies for the specific transmitter. Certified EEx d IIC cable entries shall be used.
 - 1.b. EEx ia IIC T4 () with **X** ticked in the parenthesis:
The EEx ia IIC T4 protection according to certificate Nemko 03ATE133X applies for the specific transmitter. Certified diode safety barriers shall be used.
 - 1.c. EEx d IIC T6 / EEx ia IIC T4 () with **X** ticked in the parenthesis:
The transmitter has a double protection. Both EEx d IIC T6 and EEx ia IIC T4 protection apply for the specific transmitter according to certificates Nemko 02ATEX035X / 02ATEX149X and Nemko 03ATEX133X
In this case the transmitter shall be fitted with appropriate certified cable entries EEx d IIC and the electric circuit supplied by a certified diode safety barrier as specified for the protection EEx ia IIC T4
2. For enclosures of the transmitters made of aluminium impact and friction hazards shall be considered when the transmitter is used in category II 1 G according to EN 50284 clause 4.3.1
4. The safety barrier shall have a linear resistive output characteristic.
5. The pressure of the potentially explosive atmosphere surrounding the transmitter shall be within the range 0,8 mbar to 1,1mbar

[18] Essential Health and Safety Requirements

See item 9 in main certificate

Oslo 2006-05-31**Rolf Hoel
Certification Department**

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NO 974404532

SUPPLEMENT 3 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX035X****[15] Description of Equipment or Protective System**

This Certificate is extended to include:

- Revised documents.
- Minor changes of electronic components and PCB layout.

Type Designation

LD301, LD302 and LD303

Technical Data

U=28VDC

Ingress Protection Code

IP67 according to EN 60529.

[16] Report No. 70133**Descriptive Documents**

Name/Number	Rev.	Date	Title/Description	Sheets
102B020511	11	2002-12-18	FIELD DEVICES MAIN BOARD GLL1000	6
102B050702	02	2002-02-14	FIELD DEVICES TERMINAL BLOCK	1
102B030701	01	2002-12-18	TRANSFORMER GENERAL INFORMATION	1
102A069205	05	2002-12-18	GLL1071	6
102B051310	10	2002-12-18	FIELD DEVICES SINGLE BOARD GLL1071	6
101-A-6346-02	02	2006-05-04	Nameplate LD301	1

[18] Essential Health and Safety Requirements

See item 9 in main certificate

Oslo 2006-07-13

**p.p. Rolf Hoel
Certification Department***This certificate may only be reproduced in its entirety and without any change, schedule included.*

SUPPLEMENT 4 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX035X****[15] Description of Equipment or Protective System**

The Certificate is extended to include:

- Revised documents.
- Minor addition and corrections of critical components.

Type Designation

LD301, LD302 and LD303

Technical Data

U=28VDC

Ingress Protection Code

IP67 according to EN 60529.

[16] Report No. 97948**Descriptive Documents**

Name/Number	Rev.	Date	Title/Description	Sheets
102B0073	11	2007-06-06	FIELD DEVICES CAPACITIVE SENSE BOARD GLL910	1
102B0513	11	2007-06-06	FIELD DEVICES SINGLE BOARD GLL 1071	5
102B0506	3	2004-30-03	FIELD DEVICES TERMINAL BLOCK	1
102B0307	2	2006-25-06	TRANSFORMER GENERAL INFORMATION	1
101A6346	3	2007-26-06	LABEL PLATE LD 301	1
101E0029	5	2007-24-09	DIMENSIONAL DRAWING WITH INDICATOR LD301	1

LD302 Sent Documents List Ref: SDM 661

LD303 Sent Documents List Ref: SDM 662

[18] Essential Health and Safety Requirements

See item 9 in main certificate

Oslo 2007-12-17

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