

[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 03ATEX1375X Issue 5

[4] Equipment or Protective System: Density Transmitter

[5] Applicant/ Manufacturer: Smar Equipamentos Industriais Ltda.

[6] Address: Av. Dr. Antonio Furlan Jr., 1028
Sertãozinho -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. D0002024

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012, EN 60079-1: 2007

[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 2G

Ex d IIC T6 Gb Ta : -20°C to +60°C

Oslo, 2016-04-19

Asle Kaastad
Certification Manager, Ex-products

[13] Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE No** **Nemko 03ATEX1375X** **Issue 5**

[15] **Description of Equipment or Protective System**

The SMAR DT Series is a flameproof enclosure, intended to density transmitters and consist in housing and electronic circuit.

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 DT300 "Touché" Intelligent Density Transmitter is an instrument developed for the continuous, online measurement of liquid density and concentration, directly in the industrial process. Consists of a capacitive type differential pressure sensor coupled to a pair of pressure repeaters immersed in the process. A temperature sensor located between the two pressure repeaters is used to compensate the temperature variations in the process fluid.

Type Designations

DT 301, DT 302 & DT 303

Technical Data

28 VDC, 12mA

Ingress Protection Code

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.

[16] Report No. D0002024

Descriptive Documents

Title:	Drawing No.:	Rev. Level:	Sheet	Date:
Boards Arrangements DT301	102A-0546	03	1	13-11-18
PCB Interconnection DT301	102B-0557	03	1	13-11-18
LM DT301	LM-102-0437	22	1	14-03-14
LM General Components DT301/302	LM-102-0438	02	1	13-08-01
LM General Components Hart	LM-102-0161	04	1	06-05-10
Label Plate DT301 NEMKO-EXAM/BVS IP66/68	102A-1386	03	1	16-04-18
Label Plate DT301 NEMKO-EXAM/BVS IP66W/68W	102A-1480	03	1	16-04-18
Mechanical Drawing DT NEMKO	101-E-0122	02	1	08-10-17
Boards Arrangements DT302/303	102A-0590	03	1	15-03-20
PCB Interconnection DT302/303	102B-0640	03	1	15-03-20
LM DT302/303	LM-102-1132	00	1	15-03-23
LM General Components DT301/302	LM-102-0438	02	1	13-08-01
LM General Components Fieldbus/Profibus PA	LM-102-0232	03	1	06-11-13
Label Plate DT302 NEMKO-EXAM/BVS IP66	102A-1387	03	1	16-04-18
Label Plate DT302 NEMKO-EXAM/BVS IP66W	102A-1482	03	1	16-04-18
Label Plate DT303 NEMKO-EXAM/BVS IP66	102A-1269	03	1	16-04-18
Label Plate DT303 NEMKO-EXAM/BVS IP66W	102A-1484	03	1	16-04-18
Mechanical Drawing DT NEMKO	101-E-0122	02	1	08-10-17

Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2003-06-30	200207206	Prime Certificate released
1	2006-06-01	63435	This certificate is revised to include special condition to use, and minor changes in the electronic components and PCB layouts.
2	2006-07-12	70146	Revised documents. Minor changes of electronic components.
3	2007-10-22	86771	This revision is to include revised documents.
4	2007-12-06	97417	This revision is to include revised documents.
5	2016-04-19	D0002025	Inclusion of new PCB, updated documents, and update to the latest standard of EN 60079-0: 2012.

[17] Special Conditions for Safe 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

See item 9