

(1) **EC TYPE EXAMINATION CERTIFICATE**

(2) **Equipment or protective system intended for use
in potentially explosive atmospheres
Directive 94/9/EC**

(3) EC type examination certificate number: **ISSeP00ATEX003 X**

(4) Equipment or protective system:
EZ Modulelevel Smart II level transmitter type E**-****-***

(5) Applicant – ~~Manufacturer~~ – ~~Authorized representative in the Community~~:

(6) Address: **MAGNETROL INTERNATIONAL N.V.
Heikensstraat 6
B - 9240 ZELE**

(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) ISSeP, notified body n° 492 in accordance with article 9 of the 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 n° 99172.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014, 3 rd. 1997 + amendments 1 and 2 1999
EN 50020, 2 nd 1994
EN 50284, 1999

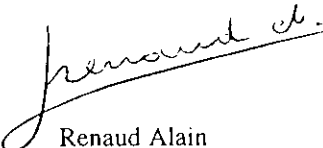
(10) The symbol "X" placed after the certificate number indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If necessary, other requirements of this directive may apply to the manufacture and supply of this equipment or protective system.

(12) The marking of the equipment or protective system shall include the following indications:

 II 1 G EEx ia II C T6

Colfontaine, the 22.03.2000


Renaud Alain
Manager of Colfontaine division

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Rue Grande, 60 - B7340 Colfontaine
Tél: ++ 32 65 610811 - Fax: ++ 32 65 610808

(13)

SCHEDULE

(14)

EC TYPE EXAMINATION CERTIFICATE N^R ISSeP00ATEX003 X

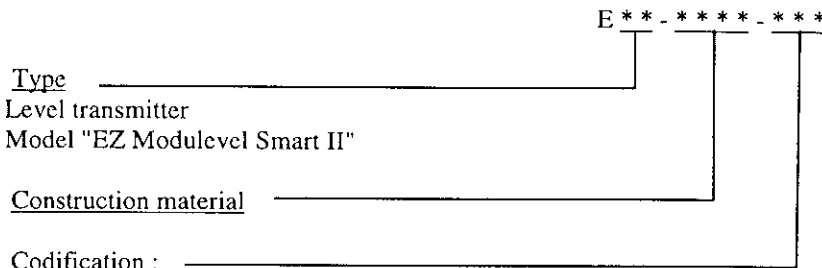
(15) Description of the equipment or protective system:

The level transmitter model "EZ Modulevel Smart II", type E**-****-*** consists of a moulded electronic circuit, of a linear variable differential transformer (LVDT) and of an analog indicator.

Three types of "LVDT" are available :

- "LVDT standard", ref. 1000 HR-1730, temp. range : -54°C to +149°C
- "LVDT mid. temp.", ref. 1000 HR-1995, temp. range : -54°C to +218°C
- "LVDT high temp.", ref. 1000 HR-2934, temp. range : -54°C to +274°C

The different versions of the transmitter are coded as follow :



- ESD : type with "LVDT standard" without indicator
- ESI : type with "LVDT standard" with indicator
- ESH : type with "LVDT mid. temp. range" without indicator
- ESK : type with "LVDT mid. temp. range" with indicator
- RSQ : type with "LVDT high temp. range" without indicator
- RST : type with "LVDT high temp. range" with indicator

For versions "RSQ" and "RST", the "LVDT" is mounted into a separate enclosure.

Electrical parameters

$U_i = 28.4 \text{ V} - I_i = 94 \text{ mA} - P_i = 0.68 \text{ W}$
 or $U_i = 26.4 \text{ V} - I_i = 99 \text{ mA} - P_i = 0.66 \text{ W}$
 $C_i = 5 \text{ nF} - L_i = 800 \text{ } \mu\text{H}$

Eventual prescriptions : None

(16) Report n^f 99172 of 20.03.2000

Composed in total of 42 sheets, completed by the following descriptive document.

- "Document descriptif du Smart EZ Modulevel" of 16.03.2000 (2 sheets)
- "Smart EZ Modulevel® Installation and Operating Manual" (16 sheets)

The drawings :

- 99-7144 rev. B of 10/99 (2 sheets)

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

- 30-2135 rev. P of 08/98 (2 sheets)
- 09-6219 rev. M of 02/99
- 09-6221 rev. L of 04/99
- 09-6249 rev. D of 04/99
- 30-2154 rev. J of 03/95
- 30-2153 rev. D of 03/95
- Cables list of 26-10-1999
- 94-5026 rev. B of 08/98
- 91-1326 rev. M of 12.05.1994
- 30-2194 rev. B of 10/98
- 09-9049 rev. B of 10.09.1998 (2 sheets)
- 09-6145 rev. L of 06.01.1994
- 03-8803 rev. B of 10/87
- 09-6945 rev. V of 26.10.1999
- 09-8036 rev. C of 03/97
- 70-2004 rev. A of 08/97
- 70-2005 rev. A of 08/97
- 09-2292 rev. C of 06/98
- 30-2163 rev. Z of 07/99 (sheets 3 and 4 of 4)
- 94-5024 rev. C of 09/98 (4 sheets)
- 09-9033-001 rev. F of 26.10.1999 (2 sheets)
- 09-6137 rev. J of 11/90
- 09-4903 rev. D of 09/90
- 09-3980 rev. A of 24.01.1995
- 09-5720 rev. D of 6/92
- 37-3145 rev. G of 8/96 (2 sheets)
- 09-7149 rev. P of 06/96
- 37-3222 rev. D of 5/98
- 09-7146 rev. E of 03/96
- 09-8241 rev. B of 03/98
- 09-6110 rev. F of 03/98
- C-37-7102 rev. Q of 08/94
- 99-7164 rev. A of 18.10.1999
- 99-7165 rev. A of 18.10.1999

(17) Special conditions for safe use:

Symbol X

- When the transmitter is installed, the user and installer must ensure the internal temperatures of enclosures containing the electronics and the indicator don't exceed 55°C under the worst unfavourable conditions.

The worst unfavourable conditions are present with an external ambient temperature of 55°C and a maximum heating transmission by the installation.

If one of these temperatures exceeds 55°C, the remote version "RSQ" or "RST" has to be used.

- When the material is equipped with an aluminium enclosure, all precautions shall be taken in order to avoid all impacts or frictions which can cause ignition of the potentially explosive atmosphere.

(18) Essential Health and Safety Requirements: None.

VARIATION

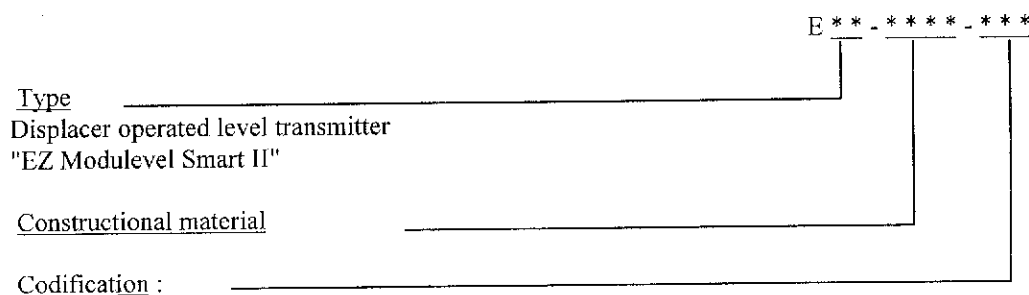
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(14) Equipment : EZ Modulelevel Smart II level transmitter type E** - **** - *** .

(15) Subject of the variation :

- The compound to encapsulate the circuits is changed
- New revisions for some documents
- Possibility to use a certified digital display
- Possibility to use the models without indicator and with analog indicator at -50°C

The codification for the different transmitter version is modified as follows :



Codification :

- ESD : type with "LVDT standard" without indicator
- ESI : type with "LVDT standard" with analog indicator
- ESJ : type with "LVDT standard" with digital indicator
- ESH : type with "LVDT mid. temp. range" without indicator
- ESK : type with "LVDT mid. temp. range" with analog indicator
- ES8 : type with "LVDT mid. temp. range" with digital indicator
- RSQ : type with "LVDT high temp. range" without indicator
- RST : type with "LVDT high temp. range" with analog indicator
- RSZ : type with "LVDT high temp. range" with digital indicator

Electrical parameters : Unchanged

Eventual prescriptions : None

This document may not be used without the original certificate

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP00ATEX003X/1

(16) Report n° 03050 of 27.02.2003 (10 pages) completed by the descriptive documents below :

"Document descriptif du Smart EZ Modulelevel" du 10.01.2002 (2 pages)

The drawings :

Number	Rev.	Dates	Pages	Description
09-6219	N	08.2001		L.V.D.T. Coil & Core
30-2194	C	08.2000		Meter - Bottom P.C. Board Assy
09-6137	K	11.12.2002		Terminal Block
09-6945	W	04.2000		Epoxy Encapsulated Shielded Inductor
09-7149	S	10.2001		26 AWG Wire
91-1326	N	10.1999		Conformal Coating
070- 2011	A	27.11.2002		Epoxy Cement
99- 7144	C	01.2003	2	ES Modulelevel Assy (EEx i)
030-2163	AH	03.12.2002	1 de 3	Smart EZ (SMT) P.C. Borad Assy
030-2163	AH	03.12.2002	3 de 3	Smart EZ (SMT) P.C. Borad Assy
094-5024	E	07.2002	4	Smart EZ (Surface Mount) Schematic
99-7164	B	08.2001		EZ Smart II ATEX
99-7165	B	01.2003	2	ATEX nameplate EZ Modulelevel Smart II

Certificate BAS00ATEX1091U

(17) Special conditions for safe use :

The conditions imposed by the original certification are modified as follow :

Symbol X

- Temperature class in relation to the ambient temperature range :
 - Without indicator or with analog indicator :
 - 50°C to +55°C T6
 - With digital indicateur
 - 40°C to +55°C T5
 - 40°C to +40°C T6

(18) Essential Health and Safety Requirements : None

Colfontaine, 13.03.2003

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