INERIS
INSTITUT NATIONAL DE L'ENVIRONNEMENT
INDUSTRIEL ET DES RISQUES

Parc Technologique ALATA
B.P N° 2 - 60550 Verneuil-en-Halatte - France
Tél. : (33) 03 44 55 66 77 - Fax : (33) 03 44 55 67 04
E-mail : ineris@ineris.fr

(2) **Equipment and protection systems intended for use in potentially explosive atmospheres Directive 94/9/CE**

(1) EC-TYPE EXAMINATION CERTIFICATE

(3) Number of the EC type examination certificate: **INERIS 01ATEX0005 X**

(4) Protection apparatus or system:

TERMINAL BOXES series AQ../AR..

(5) Manufacturer: **ITALSMEA**

(6) Address: Via per Cernusco,15
20060 BUSSERO (MI)
ITALY

(7) This protection system or equipment and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.

(8) The INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/CE 23 the Mars 1994, certifies that this protection system or equipment fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protection systems intended for use in potentially explosive atmospheres, described in appendix II of the Directive.

The examinations and the tests are consigned in official report N°15661/01.

(9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 50 014	of June 1997 + A1 and A2
EN 50 019	of March 1994
EN 50 020	of August 1994
EN 50281-1-1	of September 1998

- specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents.

(10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protection system is subjected to the special conditions for safe use, mentioned in the annex of 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 the protection system will have to contain:

Ex II 2 G D IP66 T85°C or IP66 T100°C

EEx e II T6 or EEx e II T5 or EEx ia IIC T6 or EEx ia IIC T5 or EEx e ia IIC T6 or EEx e ia IIC T5

Verneuil-en-Halatte, 2001 02 16

X. LEFEBVRE

Engineer at the Laboratory of Certification of Materials
ATEX

Director of the Certifying Body,
By delegation
B. PIQUETTE
Deputy manager of Certification

INERIS FRANCE

(13) # ANNEX

(14) EC TYPE EXAMINATION CERTIFICATE N° INERIS 01ATEX0005 X

(15) **DESCRIPTION OF THE EQUIPMENT OR THE PROTECTION SYSTEM**

Terminal box made in 2 sizes for serie AQ.. and 5 sizes for serie AR..
The metallic box is composed of a body closed by a lid fixed by screws and eventually moved with hinges.
This box contains a whole of terminal of certified type, protected by increased safety and/or by intrinsic safety.

PARAMETERS RELATING TO THE SAFETY

TERMINAL BOX FOR A MAXIMUM AMBIENT TEMPERATURE OF 40°C		
type	Maximum dissipated powers (W) according temperature class	
	T6 or T85°C	T5 or T100°C
AQ 6	35	58
AQ 8	55	95
AR 2	18	28
AR 4	27	43
AR 6	41	66
AR 8	58	105
AR 8A	87	135

TERMINAL BOX FOR A MAXIMUM AMBIENT TEMPERATURE OF 50°C		
type	Maximum dissipated powers (W) according temperature class	
	T6 or T85°C	T5 orT100°C
AQ 6	26	43
AQ 8	41	69
AR 2	13	22
AR 4	20	34
AR 6	31	51
AR 8	43	72
AR 8A	65	108

TERMINAL BOX FOR A MAXIMUM AMBIENT TEMPERATURE OF 55°C		
type	Maximum dissipated powers (W) according temperature class	
	T6 or T85°C	T5 or T100°C
AQ 6	24	35
AQ 8	38	55
AR 2	12	18
AR 4	19	27
AR 6	28	41
AR 8	40	58
AR 8A	61	87

Maximum supply voltage:
- 250 V for terminals protected by intrinsic safety
- 750 V for terminals protected by increased safety

MARKING

Marking must be readable and indelible; it must comprise the following indications:

- **ITALSMEA**
  Via per Cernusco,15
  20060 BUSSERO (MI)
  ITALY

- AQ..or AR..
- INERIS 01ATEX0005 X
- (Serial number, if any)
- (year of construction)
- Ex **II 2 GD**
- EEx e II T6 or EEx e II T5 or EEx ia IIC T6 or EEx ia IIC T5 or EEx e ia IIC T6 or EEx e ia IIC T5
- IP 66 T100°C or IP 66 T85°C
- (rated power and current)

For models AR 8 and AR 8A offering a dissipated power higher than 80 W, the mention :
- Tcable = 85°C

The whole marking can be carried out in the language of the country of use.

The protection apparatus or system must also carry the marking normally envisaged by the standards of construction which relate to it.

ROUTINE EXAMINATIONS AND TESTS

Each example of the equipment hardware defined above must have successfully passed before delivery a dielectric strength test carried out as specified in section 7.1 in accordance with section 6 of standard EN 50 019 for junction elements.

(16) DESCRIPTIVE DOCUMENTS

The technical report is composed of the documents quoted hereafter, constituting the descriptive file of the apparatus, object of this certificate.

- Descriptive Notice TN-30-2001-01 (14 pages) signed on 2001.02.15
- Instructions Notice (5 pages) signed on 2001.02.15

(17) SPECIAL CONDITIONS FOR SAFE USE

Enclosures are intended to be used in an ambient temperatures range of -50°C to 55°C.
The thermal stability of terminals shall be compatible with the expected ambient temperature range.
The maximum number of admitted terminals is depended on dissipated maximum power in this box; powers are those indicated in tables above.
User shall connect on intrinsic safety terminals only elements which maximum characteristics shall be below or equal to characteristics defined in the different certificates of intrinsic safety elements.
For use in potentially explosive atmospheres due to combustible dust, user shall perform a regular cleaning of box in view to limit dust layers on equipment sides.
These special conditions are defined in instruction notice.

(18) ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH

The respect of the Essential Health and Safety Requirements is ensured by:

- conformity to the European standards EN 50 014, EN 50 019, EN 50 020 and EN 50 281-1-1
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

ADDITION

(3) **INERIS 01ATEX0005 X/01**

(4) **TERMINAL BOXES TYPE AQ../AR..**

(5) **Made by ITALSMEA**

(15) **PURPOSE OF THE ADDITION**

Update of descriptive documents.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety mentionned in the basic certificate are unchanged.

MARKING

The marking defined in the basic certificate is modified as follows :

ITALSMEA
Via per Cernusco,15
20060 BUSSERO (MI)
ITALY
AQ..or AR..
INERIS 01ATEX0005 X
(Serial number)
(year of construction)


II 2 GD
Ex e II T6 or Ex e II T5 or Ex ia IIC T6 or Ex ia IIC T5 or Ex e ia IIC T6 or Ex e ia IIC T5
Ex tD A21 IP 66 T100°C or IP 66 T85°C
(rated power and current)
For models AR 8 and AR 8A offering a dissipated power higher than 80 W, the mention :
- Tcable = 85°C

(1) Type is completed by numbers and/or letters corresponding to manufacturing variation.

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests stipulated by the basic certificate are unchanged.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- Descriptive Notice TN-30-2001-01 (15 pages) revision n°1 signed on 2006.10.31 including drawings.
- Instructions Notice AQ-AR-06E31-10 (4 pages)rev n°2 signed on 2006.10.31.

(17) SPECIFIC PARAMETERS OF THE TYPES OF PROTECTION CONCERNED

The special conditions defined in the basic certificate are unchanged.

(18) ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH

The respect of the Essential Health and Safety Requirements is completed as follows:

- Conformity to the European standards EN 60 079-0, EN 60 079-7, EN 60 079-11, EN 61 241-0, EN 61241-1, and EN 61241-11.
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2006 12 06

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

X. LEFEBVRE

Engineer at the Laboratory of ATEX Equipment Certification

Director of the Certifying Body,
By delegation
B. PIQUETTE
Deputy manager of Certification