



INERIS

INSTITUT NATIONAL DE L'ENVIRONNEMENT
INDUSTRIEL ET DES RISQUES

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

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(3) Number of the EC type examination certificate: **INERIS 03ATEX0118 X**

(4) Protection system or equipment:

Telephone Type 227A1

(5) Manufacturer: **LE LAS**

(6) Address: **34/36, rue Roger Salengro
F - 94134 FONTENAY SOUS BOIS**

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

(8) The INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 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 No P42772/03.


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

- conformity with:

EN 50 014	of June	1997 + Amendments 1 and 2
EN 50 019	of august	1994
EN 50 020	of June	2002
EN 50 028	of February	1987
EN 50 281-1-1	of September	1998 + Amendment 1

- 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:

 II 2 GD

EEx e m [ib]ib IIC T5

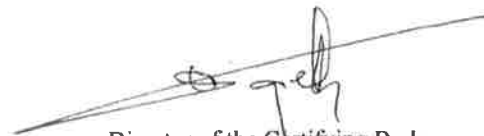
IP65 T100°C

Verneuil-en-Halatte, 2003 06 23



T. HOUEIX

Engineer at the Laboratory of Certification
of Materials ATEX



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



(13)

ANNEX

(14)

EC TYPE EXAMINATION CERTIFICATE N°INERIS 03ATEX0118 X

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTION SYSTEM

The apparatus, type 227A1, is a telephone intended for the transmission of electric signals towards an automatic exchange.

The telephone is composed of:

- of a casing protected by increased safety container:
 - a printed circuits board protected by intrinsic safety allowing connection from the microphone, the headset and the keyboard with keys,
 - a printed circuits board embedded in a resin and protected by encapsulation; this board comprises, on its higher face, two terminals "e" (located BR1 and BR2) for the connection of the external electric circuits.
- of a telephone headset protected by intrinsic safety,
- of a second receiver, in option, including a standard ear-phone DR381 also protected by intrinsic safety.

The metal casing, made out of light alloy, is composed of a body closed by a lid maintained by 3 screws.

The lid is equipped in front face of a keyboard with keys, of a luminous diffuser and two zones comprising of the openings for the loudspeaker and the microphone.

An alternative is envisaged without keyboard with keys; in this case, the site of the keyboard receives a metal plate.

The microphone can also be removed; in this case, a metal disc seals the opening.

The lid is equipped, partly low, of a crossing of steel axis or of a screw with nut for mechanical or magnetic commutation.

It also comprises one or two cable entries intended for the headset connections with the second receiver.

PARAMETERS RELATING TO THE SAFETY

The maximum input characteristics of the terminals are:

The phone type 227A1 is powered by an alternative voltage source:

Terminals reference	U _i (V _{ac})	I _i (mA _{ac})	P _i (W)
BR1, BR2	80	50	1


or,

The phone type 227A1 is powered by a continuous voltage source:

Terminals reference	U _i (V _{dc})	I _i (mA _{dc})	P _i (W)
BR1, BR2	60	80	1,2

MARKING

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

- LE LAS
- 34/36, rue Roger Salengro
F - 94134 FONTENAY SOUS BOIS
- INERIS 03ATEX0118 X
227A1
- (Serial number)
- (Year of construction)
-  II 2 GD
- EEx em[ib]ib IIC T5
- Tamb. = -40°C to +60°C

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

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

ROUTINE EXAMINATIONS AND TESTS

Each exemplar of the apparatus defined above must have undergone successfully, prior to delivery:

- According to the paragraph 5.1 of the EN 50 019 standard, a dielectric strength test,
- According to the paragraph 7.1 of the EN 50 028 standard, a visual examination of encapsulation.
- According to the paragraph 6.2.4 of the EN 50 028 standard, a dielectric strength test,
- According to the paragraph 7.3 of the EN 50 028 standard, a checking of the electric characteristics.

(16) DESCRIPTIVE DOCUMENTS

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

Descriptive note (14 pages) on 2003.06.19

Instructions (32 pages) on 2003.06.19

Electrical schematics n°:

SP227A1.ACE folio 1/1 rev..A on 2003.01.15

SP227A2.ACE folio 1/1 rev..A on 2003.01.15

List n°:

NOM227A1.ACE folio 1/4 to 4/4 rev..A on 2003.01.15

NOM227A2.ACE folio 1/3 and 3/3 rev..A on 2003.01.15

Plans n°:

XD118PLI/SE.ACE rev. A on 2003.01.15

XD118PLI/FB.ACE rev. A on 2003.01.15

XD118PLI/FA.ACE rev. A on 2003.01.15

XD221CMA/SE.ACE rev. A on 2003.01.15

XD221CMA/FB.ACE rev. A on 2003.01.15

XD221CMA/FA.ACE rev. A on 2003.01.15

WK118PLI.ACE rev. A on 2003.01.15

TLA227A1.ACE boards 1 and 2 rev. A on 2003.01.15

227A113.ACE board 1 rev. A on 2003.01.15

Theses documents were signed on 19th june 2003.

(17) SPECIAL CONDITIONS FOR SAFE USE

The apparatus has to be supplied by a voltage source from a certified type for use in explosive atmosphere of group IIC and their output circuit recognised as intrinsically safe.

The output characteristics of each voltage source have to be equal or less than the characteristics defined in paragraph 15.

These special conditions are defined in the instructions.

(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, EN 50 028 and EN 50 281-1-1.
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.