

- (2) **Equipment intended for use in potentially explosive atmospheres
Annex VIII - Directive 94/9/EC**

(1) **TYPE EXAMINATION CERTIFICATE**

- (3) Number of the type examination certificate: **INERIS 15ATEX3018X**

- (4) Equipment:

ANTI-STATIC ION BAR TYPE SIB-**ex**

- (5) Manufacturer:

SUNJE Electrostatics

- (6) Address:

8, Cheonggwang-gil, Ilgwang-Myeon, Gijang-Gun
Busan, Korea

- (7) This 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) INERIS, accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr), certifies that this equipment fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres and submitted to the annex VIII of the Directive. The essential requirements are described in the annex II of the Directive 94/9/EC of the 23rd March 1994.

The rules of certification are available on the website www.ineris.fr

The examinations and the tests are consigned in report No 029062/15.


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

- conformity with:

EN 1127-1 : 2011

- 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 type examination certificate, indicates that this equipment is subjected to the special conditions for safe use, mentioned in the annex of this certificate.
- (11) This type examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment, these are not covered by this certificate.
- (12) The marking of the equipment will have to contain:

 II 3 G

Verneuil-en-Halatte, 20XX XX XX

The Chief Executive Officer of INERIS
By delegation
T.HOUEIX
Ex Certification Officer

The Chief Executive Officer of INERIS
By delegation
D. CHARPENTIER
Certification Division,
Manager

The Chief Executive Officer of INERIS
By delegation
C. MICHOT
Chief Certification Officer

(13) **A N N E X**

(14) **TYPE EXAMINATION CERTIFICATE N° INERIS 15ATEX3018X**

(15) **DESCRIPTION OF THE EQUIPMENT**

The SIB-****ex anti-static ion bars are designed to eliminate the electrostatic problems on any operation that includes sheets, webs or the other flat materials.

The high voltage generates an electrical field at the discharging tip of the anti-static ion bar that might cause conversion of positive and negative ions in the air molecules around the discharging tip(s). When an electrostatically charged material comes close to the tips, electrons are exchanged until the material is in neutral condition.

The SIB-****ex anti-static ion bar can be used in hazardous atmosphere zone 2, for Gas group IIB and temperature class T6.

These equipments are supply by controller model SBP-08A3 which must be installed in safe area, with output voltage 8 kV AC (approximately current 30µA).

Design definition :

SIB-****ex :

**** = length of device, from 100 mm to 3000 mm, all the sizes possible, with their dimensions and number of needles, are defined in a table of the user manual TR1501-0.

PARAMETERS RELATING TO THE SAFETY

Electrical ratings for Ion Bar :

Rated voltage : 8 kV AC (50/60 Hz)

Electrical ratings for Controller :

Input Voltage : 110 V AC or 220V AC (50/60Hz)

Rated Current : 28.25 mA (at 220V AC / 60Hz)

Output Voltage : 8 kV AC (50/60 Hz)

MARKING

Marking has to be readable and indelible; it has to include the following indications:

SUNJE Electrostatics

Busan, Korea

SIB-****ex

INERIS 15ATEX3018X

(Serial number)

(Year of construction)

⊕ II 3 G

IIB T6

0 °C ≤ Tamb ≤ 40 °C

WARNING : POTENTIAL ELECTROSTATIC HAZARD (SEE INSTRUCTION)

Marking may be carried out in the language of the country of use.

The equipment has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

Each apparatus defined above has to have successfully passed the following individual tests before delivery:

- A test of dielectric strength between the power cable and each ground handling, performed according to one of the following conditions :

The test voltage shall be applied for at least 1 s.

Or

1.2 x test voltage may be applied and maintained for at least 100 ms.

The test voltage shall be 17 kV r.m.s (0% , +5%) at 48Hz to 62Hz. Alternatively the test voltage shall be 17.4 kV d.c. (0% , +5%).

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation of the equipment, subject of this certificate.

- User Manual TR1501-0 Rev.1 (10 pages)
- Drawing List Rev.0 (6 drawings)
- Certificates of cable glands
- Data-sheet of cable
- Materials data-sheets

signed on 20XX.XX.XX

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(17) SPECIAL CONDITIONS FOR SAFE USE

- During the installation, the user will take into consideration that the equipment underwent only a shock corresponding to an energy of a low risk.
- For these equipments with a permanently connected cable, the user will have to connect the free extremity of cable to a controller model SBP-08A3 installed in a non-explosive atmosphere.
- For the risk from electrostatic discharge, the user will have to read the instructions.
- The discharging tips must not be connected together.
- The discharging tips must be protected against any contacts from external objects.
- The lonizer must not be installed in an electric field or electromagnetic field of another device.

The other conditions are stipulated in the instructions.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

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

- Conformity to the standards quoted in clause (9).
- All provisions adopted by the manufacturer and defined in the descriptive documents.