(2) **Equipment and protective 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 03ATEX0111X**

(4) Equipment or protective system:

RADIANT CATALYTIC PANEL SERIES INFRACAT ..-..Ex

(5) Manufacturer: **INFRAGAS S.p.a**

(6) Address: Via Lavoresco N°10
I- 10072 CASELLE (TO)

(7) This equipment or protective system 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 equipment or protective system fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective 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 46919/03.

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

- conformity with:

EN 1127-1	of June	1997
EN 13463-1	of November	2001
EN 50 014	of June	1997 + Amendment 1 and 2
EN 50 018	of November	2000 + Amendment 1
EN 50 020	of June	2002
EN 50 039	of March	1980

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

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Etablissement public à caractère industriel et commercial - RCS Senlis B 381 984 921 - Siret 381 984 921 00019 - APE 743B

(10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective 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 protective system will have to contain:

 **II 2G**

Verneuil-en-Halatte, 2004 10 30

X. LEFEBVRE

Engineer at the Laboratory for Certification of ATEX Equipment

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

(13) # ANNEX

(14) EC TYPE EXAMINATION CERTIFICATE N° INERIS 03ATEX0111X

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

Emitter of infrared rays with catalytic combustion by natural gas or propane allowing the polymerisation of organic coatings such as sealant, paints and composites. The type can be completed by numbers corresponding to variation described by the descriptive documents.

It is composed of :
- one or two integrated electrical heating elements,
- a flameproof box of category 2G certified CESI03ATEX120U intended for the electrical connection of elements.
- a standard thermocouple K defined as a simple apparatus according EN 50 020

The catalytic panel is usable for the following explosive atmospheres:

Hydrocarbons	Hydrocarbons
Alkanes:	*Mixed Hydrocarbons*:
Methane	Methane (industrial)
Ethane	Turpentine
Propane	Petroleum naphta
Butane	Coal tar naphta
Pentane	Petroleum (including motor spirit)
Hexane	Solvent or cleaning petroleum
Heptane	Heating oil
Octane	Kerosene
Nonane	Diesel oil
Decane	Motor benzole
Cyclobutane	**Compounds containing oxygen :**
Cyclopentane	*Alcohols and phenols* :
Cyclohexane	Ethanol
Cycloheptane	*Ketones* :
Methylcyclobutane	Acetone
Methylcyclopentane	Ethyl-Methyl-Ketone
Methyleyclohexane	*Esters* :
Ethylcyclobutane	Ethyl acetate
Ethylcyclopentane	Butyl acetate
Ethylcyclohexane	**Others:**
Decahydronaphtalene (dekalin)	Propan -2-ol
Benzenoids:	Essence F
Toluene	Essence 100/130
Xylene	N hexane
	White spirit

PARAMETERS RELATING TO THE SAFETY

- Supply voltage : 230 Vcc ± 10% (50/60Hz)
- Power according version from 1,2kW to 17kW
- Flow rate of air ventilation required for catalytic combustion: $5m^3/h$ by kilowatt

MARKING

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

- INFRAGAS S.p.A .
- Via Lavoresco N°10
  I- 10072 CASELLE (TO)
- INFRACAT.. . ..Ex
- INERIS 03ATEX0111X
- (serial number)
- (Year of construction)
- ⟨Ex⟩ **II 2 G GAZ and VAPOURS : see instructions**
- DO NOT CONNECT OR DISCONNECT IN HAZARDOUS AREA
- DO NOT PUT ANY ITEM ON THE EMITING SURFACE
- DO NOT BLOW OUT WITH COMPRESSED AIR - FIBROUS MATERIALS WITHOUT MECHANICAL RESISTANCE TO SPRAYS

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

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

ROUTINE EXAMINATIONS AND TESTS

None.

(16) DESCRIPTIVE DOCUMENTS

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

- ATEX certification file (10 item) signed on 2004.09.14.

(17) SPECIAL CONDITIONS FOR SAFE USE

The catalytic panel is usable for gases and vapours defined in paragraph (14) of the certificate.
The catalytic panel is usable in a range of ambient temperatures defined between -20°C and 120°C.
The cable temperature of the heating elements must be more than 125°C.
The use must be respect the instructions mainly :

- Respect of preheating and ventilation requirements,
- Connection of the thermocouple type K covered by a system document according to EN50039 , certified separately,
- By the choice and the use of the valve for gas supply.

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 1127-1, EN 13463-1, EN 50 014, EN 50 018, EN 50 020 and EN 50 039.
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

ADDITION

(3) **INERIS 03ATEX0111 X/01**

(4) **RADIANT CATALYTIC PANEL SERIES INFRACAT ..-..Ex**

(5) **Made by INFRAGAS SPA**

(15) - **PURPOSE OF THE ADDITION**

Mechanical modification

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking defined in the basic certificate is unchanged.

ROUTINE EXAMINATIONS AND TESTS

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

(16) - **DESCRIPTIVE DOCUMENTS**

The documents referred to below, constitute the file describing the modifications of the apparatus and forming the subject of the present addition.

- Technical file revision 1 dated and signed on 2005.03.22

(17) - **SPECIAL CONDITIONS FOR SAFE USE**

The special conditions for safe use defined in the basic certificate are unchanged.

(18) - ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH

The respect of the Essential Health and Safety Requirements defined in the basic certificate is unchanged.

Verneuil-en-Halatte, 2005 06 22

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

X. LEFEBVRE

Engineer at the Laboratory of Certification of ATEX Equipment

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

ADDITION

(3) **INERIS 03ATEX0111X/02**

(4) RADIANT CATALYTIC PANEL SERIES INFRACAT ..:..Ex

(5) Made by INFRAGAS S.p.A

(15) - PURPOSE OF THE ADDITION

- Modification of the heating elements.
- Constructive modifications.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking defined in the basic certificate is unchanged.

ROUTINE EXAMINATIONS AND TESTS

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

(16) - DESCRIPTIVE DOCUMENTS

The document referred to below, constitute the file describing the modifications of the apparatus and forming the subject of the present addition.

- Technical file revision 2 dated and signed on 2005.11.11

(17) - SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use defined in the basic certificate are unchanged.

(18) - ESSENTIAL REQUIREMENTS OF SAFETY AND HEALTH

The respect of the Essential Health and Safety Requirements defined in the basic certificate is unchanged.

Verneuil-en-Halatte, 2006 02 28

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

X. LEFEBVRE

Engineer at the Laboratory of Certification of ATEX Equipment

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

ADDITION

(3) **INERIS 03ATEX0111X/03**

(4) **RADIANT CATALYTIC PANEL SERIES INFRACAT**

(5) **Made by INFRAGAS SPA**

(15) **PURPOSE OF THE ADDITION**

Constructive modifications :

- New dimensions of panels,
- New time of pre-heating according to nature of catalytic material,
- New standard valve type CCI,
- New flameproof box.

PARAMETERS RELATING TO THE SAFETY

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

MARKING

The marking in the basic certificate, for this version, is completed as follows :

On the flameproof box :
The code "d".

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests stipulated by the basic certificate are modified as follows:

In accordance with clause 16.2 the EN 50 018 standard, the box defined above is exempted of routine test in owing to the fact that it has undergone a static type test at 4 times the reference pressure.

(16) **DESCRIPTIVE DOCUMENTS**

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

- Technical file rev. 3 dated and signed on 2006.09.21

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions defined in the basic certificate are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements defined in the basic certificate is unchanged.

Verneuil-en-Halatte, 2006.10.19

ATMOSPHERES EXPLOSIVES ORGANISME NOTIFIE INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

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