

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 01ATEX0054 X**

(4) Protection apparatus or system:

LIGHTING FIXTURE TYPE EVAC...and SUPPLY BOX TYPE PRC

(5) Manufacturer: **FEAM**

(6) Address: **Via M. Pagano, 3
20090 TREZZANO SUL NAVIGLIO (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 23th March 1994, certifies that this protection system or equipment fulfills the Essential of Health and Safety Requirements relating to the design and construction of equipments 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°16091/01.

(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 50 018 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.
- (11) The marking of the equipment or the protection system will have to contain:

 II 2 G D

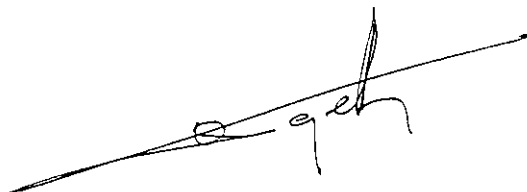
EEx d IIC T6 to T2 IP66 T80°C to T290°C

Verneuil-en-Halatte, 2001 12 12



X. LEFEBVRE

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 01ATEX0054 X

(15)

DESCRIPTION OF THE EQUIPMENT OR THE PROTECTION SYSTEM

The lighting fixture contains a lamp compartment eventually connected to a supply compartment type PRC; these two flameproof compartments made in stainless steel are connected by the way of bushing wires .

PARAMETERS RELATING TO THE SAFETY

Maximum Supply voltage : 230 V

Authorized maximum powers and characteristics of the lamps :

EVAC 100 ou 101

	LAMP TYPE					
	Incandescent	Halogen	Metal halide	Mercury Vapour	Sodium Vapour (H.P.)	Fluorescent
Power -	100 W or 25 W(AC) / 21W(DC)	100 W	100 W	80 W	70 W	15 W

EVAC 200 or 201

	LAMP TYPE					
	Incandescent	Halogen	Xenon flash	Mercury Vapour	Blended light	Fluorescent
Power	200 W	150 W	25W	125 W	160 W	23 W

EVAC 300 or 301

	LAMP TYPE					
	Incandescent	Halogen	Metal halide	Mercury Vapour	Sodium Vapour (H.P.)	Blended light
Power	300 W/25 W*	250W	250W	250W	250W	250W

with rotating reflector on motor


EVAC 500 or 501

	LAMP TYPE					
	Incandescent	Halogen	Metal halide	Mercury Vapour	Sodium Vapour (H.P.)	Blended light
Power	500 W	Non	400 W	400 W	400 W	500W

MARKING

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

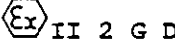
On the lighting fixture type EVAC:

- FEAM
Via M. Pagano, 3
20090 TREZZANO SUL NAVIGLIO (MI)
ITALY
- EVAC... (1)
- INERIS 01ATEX0054X
- (Serial number)
- (year of construction)
-  II 2 G D
- EEx d IIC T(*)
- IP66 T(**)
- T.Amb : (*)
- T.cable : (*)
- DO NOT OPEN WHEN ENERGIZED
- AFTER DE-ENERGIZING , DELAY (***) MINUTES BEFORE OPENING

(1) type is completed by numbers corresponding to manufacturing variation

- (*) See table above.
- (**) Obligatory mention for use in the presence of combustible dust, see table above.
- (***) See table above.

On the supply box type PRC when is connected

- FEAM
Via M. Pagano, 3
20090 TREZZANO SUL NAVIGLIO (MI)
ITALY
- PRC
- INERIS 01ATEX0054X
- (Serial number)
- (year of construction)
-  II 2 G D
- EEx d IIC T(*)
- IP66 T(**)
- T.Amb : (*)
- T.cable : (*)
- DO NOT OPEN WHEN ENERGIZED
- AFTER DE-ENERGIZING , DELAY (***) MINUTES BEFORE OPENING

(*) See table above.

(**) Obligatory mention for use in the presence of combustibile dust, see table above.

(***) See table above.

For type EVAC 100 or 101

Type and power lamp	Ambient temperature range (*)	concerned explosive atmosphere		Delay waiting in mn(***) Compartment		Cable temperature (*)
		GAS(*)	DUSTS (**)	Lamp	Supply	
100W INCANDESCENT	-20°C/+40°C	T4	T 130°C	7	N.A.	N.C.
	-20°C/+52°C	T4			N.A.	81°C
100W HALOGEN	-20°C/+40°C	T4	T 130°C	5	N.A.	N.C.
	-20°C/+52°C	T4			N.A.	N.C.
100W METAL HALIDE	-20°C/+40°C	T4	T 130°C	13	4	N.C.
	-20°C/+52°C	T4			8	N.C.
80W MERCURY VAPOUR	-20°C/+40°C	T4	T 130°C	9	1	N.C.
	-20°C/+52°C	T4			3	N.C.
70W SODIUM VAPOUR	-20°C/+40°C	T4	T 130°C	2	NONE	N.C.
	-20°C/+52°C	T4			5	N.C.
15W FLUORESCENT	-20°C/+40°C	T6	T 80°C	4	N.A.	N.C.
	-20°C/+52°C	T6			N.A.	N.C.
25W AC INCANDESCENT 21W DC	-20°C/+40°C	T5	T 95°C	12	N.A.	N.C.
	-20°C/+52°C	T4	T 130°C	11	N.A.	N.C.

- N.A. Non Associated
- N.C. Non Concerned

For type EVAC 200 or 201

Type and power lamp	Ambient temperature range (*)	concerned explosive atmosphere		Delay waiting in mn(***) Compartment		Cable temperature (*)
		GAS(*)	DUSTS (**)	Lamp	Supply	
200W INCANDESCENT	-20°C/+40°C	T4	T 130°C	9	N.A.	83°C
	-20°C/+52°C	T3	T 195°C	NONE	N.A.	95°C
160W BLENDED LIGHT	-20°C/+40°C	T3	T 195°C	2	N.A.	87°C
	-20°C/+52°C	T3			N.A.	99°C
150W HALOGEN	-20°C/+40°C	T4	T 130°C	13	N.A.	N.C.
	-20°C/+52°C	T4			N.A.	82°C
125W MERCURY VAPOUR	-20°C/+40°C	T3	T 195°C	2	NONE	N.C.
	-20°C/+52°C	T3			NONE	N.C.
25W XENON FLASH	-20°C/+40°C	T6	T 80°C	NONE	N.A.	N.C.
	-20°C/+52°C	T6			N.A.	N.C.
23W FLUORESCENT	-20°C/+40°C	T6	T 80°C	4	N.A.	N.C.
	-20°C/+52°C	T6			N.A.	N.C.

- N.A. Not Associated
- N.C. Non Concerned

For type EVAC 300 or 301

Type and power lamp	Ambient temperature range (*)	Concerned explosive atmosphere		Delay waiting in mn(***) Compartment		Cable temperature (*)
		GAS(*)	DUSTS (**)	Lamp	Supply	
300W INCANDESCENT	-20°C/+40°C	T4	T 130°C	12	N.A.	82°C
	-20°C/+52°C	T3	T 195°C	NONE	N.A.	94°C
250W HALOGEN	-20°C/+40°C	T4	T 130°C	14	N.A.	81°C
	-20°C/+52°C	T3	T 195°C	7	N.A.	93°C
250W MERCURY VAPOUR	-20°C/+40°C	T3	T 195°C	4	NONE	N.C.
	-20°C/+52°C	T3			NONE	N.C.
250W SODIUM VAPOUR	-20°C/+40°C	T3	T 195°C	3	NONE	N.C.
	-20°C/+52°C	T2	T 290°C	NONE	NONE	N.C.
250W METAL HALIDE	-20°C/+40°C	T3	T 195°C	3	5	N.C.
	-20°C/+52°C	T3			NONE	N.C.
250W BLENDED LIGHT	-20°C/+40°C	T3	T 195°C	3	N.A.	89°C
	-20°C/+52°C	T3			N.A.	101°C
150W METAL HALIDE	-20°C/+40°C	T4	T 130°C	9	7	N.C.
	-20°C/+52°C	T3	T 195°C	4	NONE	N.C.
150W SODIUM VAPOUR	-20°C/+40°C	T4	T 130°C	8	4	N.C.
	-20°C/+52°C	T4			10	N.C.
25W ROTALLARM	-20°C/+40°C	T6	T 80°C	24	N.A.	N.C.
	-20°C/+52°C	T6			N.A.	N.C.

- N.A. Not Associated
- N.C. Non Concerned

For type EVAC 500 or 501

Type and power lamp	Ambient temperature range (*)	Concerned explosive atmosphere		Delay waiting in mn(***) Compartment		Cable temperature (*)
		GAS(*)	DUSTS (**)	Lamp	Supply	
500W INCANDESCENT	-20°C/+40°C	T3	T 195°C	8	N.A.	108°C
	-20°C/+52°C	T3			N.A.	120°C
500W BLENDED LIGHT	-20°C/+40°C	T2	T 290°C	2	N.A.	123°C
	-20°C/+52°C	T2			N.A.	135°C
400W MERCURY VAPOUR	-20°C/+40°C	T3	T 195°C	9	1	N.C.
	-20°C/+52°C	T3			3	81°C
400W SODIUM VAPOUR	-20°C/+40°C	T3	T 195°C	5	NONE	N.C.
	-20°C/+52°C	T3			NONE	N.C.
400W METAL HALIDE	-20°C/+40°C	T3	T 195°C	4	NONE	N.C.
	-20°C/+52°C	T3			NONE	N.C.

- N.A. Not Associated
- N.C. Non Concerned

The whole of 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 an overpressure test in accordance with section 16.1 of standard EN 50 018, of a period comprised between 10 and 60 secondes under

- under 13,1 bar performed for lamp compartment
- under 12.6 bar performed for supply compartment type PRC.

(16) DESCRIPTIVE DOCUMENTS

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

- Technical Note N.NT-004/ATEX rev.0 (6 pages) signed on 2001.11.27
- Plan n° AC004/ATEX FOLIOS 1 to 6 dated and signed on 2001.11.27
- Instructions IU004/ATEX rev.0 (2 sheets) dated and signed on 2001.11.27

(17) SPECIAL CONDITIONS FOR SAFE USE

For the resistance to impact, the lighting fixture can insure a low protection, the user shall insure an supplementary protection in case of heavy mechanical risk.

(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 50 018 and EN 50 281-1-1
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.

ADDITION

(3)

INERIS 01ATEX0054X/01

(4)

LIGHTING FIXTURE TYPE EVAC...and SUPPLY BOX TYPE PRC

(5)

Made by FEAM

(15) **PURPOSE OF THE ADDITION**

- Incorporation of new fluorescent lamps for type EVAC 300/301 and for type EVAC 500/501.
- Modification of the material for the bushing and modification of the number and type of conductors.
- Possibility to use the 250 watt mercury vapour lamp on the type EVAC500/501 with class T4.
- Modification of marking relating to the delay before opening and for the cable temperature.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety mentioned in the basic certificate are completed as follows:

Lighting fixture type EVAC300/301

Type of lamp : 3 x 18 W fluorescent.

Lighting fixture type EVAC500/501

Types of lamp : 3 x 36 W fluorescent.

1 x 250 W mercury vapour.

MARKING

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

On the lighting fixture type EVAC :

FEAM

Via M. Pagano


I - 20090 Trezzano Sul Naviglio

EVAC... (1)

INERIS 01ATEX0054X

(Serial number)

(Year of construction)

 II 2 G D

EEx d IIC T.. (*)
IP66 T.. (**)
T.Amb : (*)
T.cable : (*)

DO NOT OPEN WHEN ENERGIZED

AFTER DE-ENERGIZING DELAY 30 MINUTES BEFORE OPENING

- (1) Type is completed by numbers corresponding to manufacturing variation.
- (*) See table below.
- (**) Obligatory mention for use in the presence of combustible dust, see table below.


On the supply box type PRC when is connected

FEAM

Via M. Pagano
I - 20090 Trezzano Sul Naviglio

PRC

INERIS 01ATEX0054X
(Serial number)
(year of construction)

 II 2 G D

EEx d IIC T.. (*)
IP66 T.. (**)
T.Amb : (*)
T.cable : (*)

DO NOT OPEN WHEN ENERGIZED

AFTER DE-ENERGIZING, DELAY (***) MINUTES BEFORE OPENING

- (*) See table below.
- (**) Obligatory mention for use in the presence of combustible dust, see table below.
- (***) See table below.

The whole of 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.

Type EVAC 100 or 101

Type and power of lamp	Ambient temperature range (*)	Concerned explosive atmosphere		Waiting delay in mn(***) PRC compartment	Cable temperature (*)
		Gas (*)	Dusts (**)		
100 W Incandescent	-20°C/+40°C	T4	T130°C	N.A.	N.C.
	-20°C/+52°C				85°C
100 W Halogen	-20°C/+40°C	T4	T130°C	N.A.	N.C.
	-20°C/+52°C				N.C.
100 W Metal halide	-20°C/+40°C	T4	T130°C	30	N.C.
	-20°C/+52°C				N.C.
80 W Mercury vapour	-20°C/+40°C	T4	T130°C	30	N.C.
	-20°C/+52°C				N.C.
70 W Sodium vapour	-20°C/+40°C	T4	T130°C	30	N.C.
	-20°C/+52°C				N.C.
15 W Fluorescent	-20°C/+40°C	T6	T80°C	N.A.	N.C.
	-20°C/+52°C				N.C.
25 W AC Incandescent 21 W DC	-20°C/+40°C	T5	T95°C	N.A.	N.C.
	-20°C/+52°C	T4	T130°C		N.C.

• N.C. : Non Concerned N.A. : Not Associated

Type EVAC 200 or 201

Type and power of lamp	Ambient temperature range (*)	Concerned explosive atmosphere		Waiting delay in mn(***) PRC compartment	Cable temperature (*)
		Gas (*)	Dust (**)		
200 W Incandescent	-20°C/+40°C	T4	T130°C	N.A.	85°C
	-20°C/+52°C	T3	T195°C		95°C
160 W Blended light	-20°C/+40°C	T3	T195°C	N.A.	95°C
	-20°C/+52°C				100°C
150 W Halogen	-20°C/+40°C	T4	T130°C	N.A.	N.C.
	-20°C/+52°C				85°C
125 W Mercury vapour	-20°C/+40°C	T3	T195°C	30	N.C.
	-20°C/+52°C				N.C.
25 W Xenon flash	-20°C/+40°C	T6	T80°C	N.A.	N.C.
	-20°C/+52°C				N.C.
23 W Fluorescent	-20°C/+40°C	T6	T80°C	N.A.	N.C.
	-20°C/+52°C				N.C.

• N.C. : Non Concerned N.A. : Not Associated

Type EVAC 300 or 301

Type and power of lamp	Ambient temperature range (*)	Concerned explosive atmosphere		Waiting delay in mn(***) PRC Compartment	Cable temperature (*)
		Gas(*)	Dusts (**)		
300 W Incandescent	-20°C/+40°C	T4	T130°C	N.A	95°C
	-20°C/+52°C	T3	T195°C		
250 W Halogen	-20°C/+40°C	T4	T130°C	N.A	95°C
	-20°C/+52°C	T3	T195°C		
250 W Mercury vapour	-20°C/+40°C	T3	T195°C	30	N.C.
	-20°C/+52°C				
250 W Sodium vapour	-20°C/+40°C	T3	T195°C	30	N.C.
	-20°C/+52°C	T2	T290°C		
250 W Metal halide	-20°C/+40°C	T3	T195°C	30	N.C.
	-20°C/+52°C				
250 W Blended light	-20°C/+40°C	T3	T 195°C	N.A	105°C
	-20°C/+52°C				
150 W Metal halide	-20°C/+40°C	T4	T130°C	30	N.C.
	-20°C/+52°C	T3	T195°C		
150 W Sodium vapour	-20°C/+40°C	T4	T130°C	30	N.C.
	-20°C/+52°C	T4			
25 W Rotallarm	-20°C/+40°C	T6	T80°C	N.A	N.C.
	-20°C/+52°C				
3 x 18W Fluorescent	-20°C/+40°C	T6	T80°C	30	N.C
	-20°C/+52°C				

- N.C. : Non Concerned N.A. : Not Associated

Type EVAC 500 or 501

Type and power of lamp	Ambient temperature range (*)	Concerned explosive atmosphere		Waiting delay in mn(***) PRC Compartment	Cable temperature (*)
		Gas(*)	Dusts (**)		
500 W Incandescent	-20°C/+40°C	T3	T 195°C	N.A	135°C
	-20°C/+52°C				
500 W Blended light	-20°C/+40°C	T2	T 290°C	N.A	135°C
	-20°C/+52°C				
400 W Mercury vapour	-20°C/+40°C	T3	T 195°C	30	85°C
	-20°C/+52°C				
400 W Sodium vapour	-20°C/+40°C	T3	T195°C	30	N.C
	-20°C/+52°C				
400 W Metal halide	-20°C/+40°C	T4	T130°C	30	N.C
	-20°C/+52°C				
250 W Mercury vapour	-20°C/+40°C	T4	T130°C	30	N.C
	-20°C/+52°C	T3	T142°C		
3 x 36W Fluorescent	-20°C/+40°C	T6	T80°C	30	N.C
	-20°C/+52°C				

• N.C. : Non Concerned N.A. : Not Associated

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.

Certification file n° PC004 rev.0 (8 items) signed on 2006.05.09.

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions defined in the basic certificate are completed as follows:

In order to guarantee the T4 class, the lighting fixture type EVAC500 or EVAC501, fitted with the 250 watt mercury vapour lamp, must be installed in vertical position keeping glass globe downward.

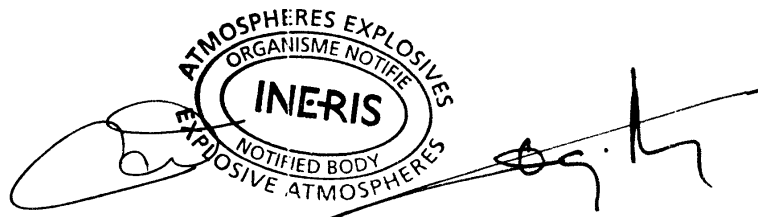
The other conditions are stipulated on the instructions.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements defined in the basic certificate is modified as follow :

- Conformity with European standards EN 50 014 from june 1997 + A1 and A2 ; EN 50 018 from November 2000 + A1.

Verneuil-en-Halatte, 2006 06 06



C. PETITFRERE

Project Manager at the ATEX
Equipment Certification Laboratory

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

ADDITION

(3)

INERIS 01ATEX0054X/02

(4)

LIGHTING FIXTURE TYPE EVAC... and SUPPLY BOX TYPE PRC

(5)

Made by FEAM

(15) **PURPOSE OF THE ADDITION**

- Application of the standards:

EN 60079-0 : 2009 IEC 60079-0 : 2007

EN 60079-0 : 2012 IEC 60079-0 : 2011

EN 60079-1 : 2007 IEC 60079-1 : 2007

EN 60079-31 : 2009 IEC 60079-31 : 2008

- Substitution of the supply box PRC by supply box PRC covered by INERIS 08ATEX0018X.
- Modification of the range of ambient temperatures.
- Introduction of new types of lamps and new type EVAC 200 LED.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

Maximum supply voltage for ballasts or electronic modules: 230 V, 240 V or 277 V in accordance with the type of ballast or electronic module and the lamp.

For the different types and powers of lamps see table below.

These Lighting fixtures can be use in the following range ambient temperatures from -20°C or -60°C to +40°C or +60°C.

MARKING

The marking is modified as follows:

FEAM

I - 20090 Trezzano sul Naviglio (MI)

EVAC... (*)

INERIS 01ATEX0054X

(Serial number)

(Year of construction)

⊕ Ex II 2 GD

Ex d IIC T(*) Gb

Ex tb IIIC T(*) Db IP66

(*) < Tamb < (*)

Cable gland : (Type and size)

WARNINGS : DO NOT OPEN WHEN ENERGIZED
 DOT NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) See table below.

Marking may be carried out in the language of the country of use.
 The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

Type EVAC100... or EVAC101...

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
100 W Incandescent	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			95°C
100 W Halogen	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			95°C
12 W LED	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			N.C
100 W Metal halide	-20°C or -60°C / +40°C	T3	T140°C	NC
	-20°C or -60°C / +60°C		T160°C	N.C
80 W Mercury vapor	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C	T3	T160°C	N.C
70 W Sodium vapor	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			N.C
15 W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			N.C
25 W AC Incandescent 21 W DC	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C	T5	T95°C	N.C

N.C : Not Concerned

Type EVAC200... or EVAC201...

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dust	
200 W Incandescent	-20°C or -60°C / +40°C	T4	T135°C	95°
	-20°C or -60°C / +60°C	T3	T160°C	120°C
160 W Blended light	-20°C or -60°C / +40°C	T3	T140°C	95°C
	-20°C or -60°C / +60°C		T160°C	120°C
150 W Halogen	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C	T3	T160°C	95°C
125 W Mercury vapor	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	N.C
100 W Sodium vapor	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	N.C
25 W Xenon flash	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			N.C
23 W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			N.C

N.C. : Not Concerned

Type EVAC 200 LED or EVAC 201 LED

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dust	
95 W LED	-20°C or -60°C / +40°C	T5	T85°C	N.C
	-20°C or -60°C / +60°C	T4	T105°C	90°C

N.C. : Not Concerned

Type EVAC 300 or 301

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
300 W Incandescent	-20°C or -60°C / +40°C	T4	T135°C	95°C
	-20°C or -60°C / +60°C	T3	T160°C	120°C
250 W Halogen	-20°C or -60°C / +40°C	T4	T135°C	95°C
	-20°C or -60°C / +60°C	T3	T160°C	120°C
250 W Sodium vapor	-20°C or -60°C / +40°C	T3	T160°C	N.C
	-20°C or -60°C / +60°C		T190°C	
250 W Metal halide	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	
250 W Blended light	-20°C or -60°C / +40°C	T3	T160°C	95°C
	-20°C or -60°C / +60°C		T190°C	120°C
150 W Metal halide	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C	T3	T160°C	
150 W Sodium vapor	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			
25 W Rotallarm	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
3 x 18W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			

N.C. : Not Concerned

Type EVAC 500 or 501

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
500 W Incandescent	-20°C or -60°C / +40°C	T3	T160°C	120°C
	-20°C or -60°C / +60°C		T190°C	140°C
500 W Blended light	-20°C or -60°C / +40°C	T2	T205°C	140°C
	-20°C or -60°C / +60°C		T225°C	160°C
400 W Mercury vapor	-20°C or -60°C / +40°C	T3	T190°C	95°C
	-20°C or -60°C / +60°C	N.A	N.A	N.A
400 W Sodium vapor	-20°C or -60°C / +40°C	T3	T190°C	85°C
	-20°C or -60°C / +60°C	N.A	N.A	N.A
400 W Metal halide	-20°C or -60°C / +40°C	T3	T160°C	N.C
	-20°C or -60°C / +60°C		T190°C	85°C
250 W Mercury vapor	-20°C or -60°C / +40°C	T3	T160°C	N.C
	-20°C or -60°C / +60°C		T190°C	85°C
3 x 36W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C	T5		
60 W Fixed or flashing LED	-20°C or -60°C / +40°C	T6	T85°C	NC
	-20°C or -60°C / +60°C	T5		

N.C : Not Concerned
N.A : Not authorized

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

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

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are modified as follows:

In accordance with clause 16.1 of the EN/IEC 60079-1 standard each apparatus defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under:

- 12.9 bar for using at ambient temperature down to -20°C.
- 14.2 bar for using at ambient temperature down to -60°C.

(16) DESCRIPTIVE DOCUMENTS

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

Certification file n° 13-202 rev.0 (12 rubrics)

signed on 2013.07.29

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are modified as follows:

The depth engagement of the threaded joints is superior to the value specified in the tables of EN/IEC 60079-1 standard

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 (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2014.01.30



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

ADDITION

(3) INERIS 01ATEX0054X/03

(4) LIGHTING FIXTURE TYPE EVAC... and SUPPLY BOX TYPE PRC

(5) Made by FEAM

(15) PURPOSE OF THE ADDITION

- Application of the following standards:
EN 60079-0 : 2012/A11 : 2013 IEC 60079-0 : 2011
EN 60079-31 : 2014 IEC 60079-31 : 2013.
- Introduction of new types EVAC 500 LED and EVAC 501 LED.
- Addition of ambient temperature -40°C for type EVAC 500 LED and EVAC 501 LED.
- Possibility to install, in the type EVAC 500, the following lamps:
 - 250 watts sodium vapour and 250 watts metal halide.
- Possibility to install, in the EVAC 200 or EVAC 201 the following lamps:
Xenon 2J, Maxixenon 2J and Maxixenon 6J.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follow :

Maximum supply voltage for ballasts or electronic modules: 230V, 240V or 277 V in accordance with the type of ballast or electronic module and the lamp.

For the different types and powers of lamps see table below.

The Lighting fixture type EVAC 500 LED and EVAC 501 LED can be use in the following range ambient temperatures:

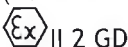
- From -20°C to 40°C or 60°C or from -40°C to +40°C or +60°C.

The other Lighting fixture can be use in the following range ambient temperatures:

- From -20°C to 40°C or 60°C or from -60°C to +40°C or +60°C.

MARKING

The marking is modified as follow :

FEAM
I - 20090 Trezzano sul Naviglio (MI)
EVAC... (*)
INERIS 01ATEX0054X
(Serial number)
(Year of construction)


Ex d IIC T6...T2 Gb
 Ex tb IIIC T85°C...T225°C Db IP66
 (*) < Tamb < (*)
 Cable gland : (Type and size)

WARNINGS : DO NOT OPEN WHEN ENERGIZED
 DOT NOT OPEN IF AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

(*) See table below.

Marking may be carried out in the language of the country of use.
 The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

Type EVAC100... or EVAC101...

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
100 W Incandescent	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			95°C
100 W Halogen	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			95°C
12 W LED	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
100 W Metal halide	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	
80 W Mercury vapor	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C	T3	T160°C	
70 W Sodium vapor	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			
15 W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
25 W AC Incandescent 21 W DC	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C	T5	T95°C	

N.C : Not Concerned

Type EVAC200... or EVAC201...

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dust	
200 W Incandescent	-20°C or -60°C / +40°C	T4	T135°C	95°
	-20°C or -60°C / +60°C	T3	T160°C	120°C
160 W Blended light	-20°C or -60°C / +40°C	T3	T140°C	95°C
	-20°C or -60°C / +60°C		T160°C	120°C
150 W Halogen	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C	T3	T160°C	95°C
125 W Mercury vapor	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	
100 W Sodium vapor	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	
25 W Xenon flash	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
23 W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
Xenon 2J	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
Maxixenon 2J	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
Maxixenon 6J	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			

N.C. : Not Concerned

Type EVAC 200 LED or EVAC 201 LED

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dust	
95 W LED	-20°C or -60°C / +40°C	T5	T85°C	N.C
	-20°C or -60°C / +60°C	T4	T105°C	90°C

N.C. : Not Concerned

Type EVAC 300 or 301

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
300 W Incandescent	-20°C or -60°C / +40°C	T4	T135°C	95°C
	-20°C or -60°C / +60°C	T3	T160°C	120°C
250 W Halogen	-20°C or -60°C / +40°C	T4	T135°C	95°C
	-20°C or -60°C / +60°C	T3	T160°C	120°C
250 W Sodium vapor	-20°C or -60°C / +40°C	T3	T160°C	N.C
	-20°C or -60°C / +60°C		T190°C	
250 W Metal halide	-20°C or -60°C / +40°C	T3	T140°C	N.C
	-20°C or -60°C / +60°C		T160°C	
250 W Blended light	-20°C or -60°C / +40°C	T3	T160°C	95°C
	-20°C or -60°C / +60°C		T190°C	120°C
150 W Metal halide	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C	T3	T160°C	
150 W Sodium vapor	-20°C or -60°C / +40°C	T4	T135°C	N.C
	-20°C or -60°C / +60°C			
25 W Rotallarm	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			
3 x 18W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C			

N.C. : Not Concerned

Type EVAC 500 or 501

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
500 W Incandescent	-20°C or -60°C / +40°C	T3	T160°C	120°C
	-20°C or -60°C / +60°C		T190°C	140°C
500 W Blended light	-20°C or -60°C / +40°C	T2	T205°C	140°C
	-20°C or -60°C / +60°C		T225°C	160°C
400 W Mercury vapor	-20°C or -60°C / +40°C	T3	T190°C	95°C
	-20°C or -60°C / +60°C	N.A	N.A	N.A
400 W Sodium vapor	-20°C or -60°C / +40°C	T3	T190°C	85°C
	-20°C or -60°C / +60°C	N.A	N.A	N.A
400 W Metal halide	-20°C or -60°C / +40°C	T3	T160°C	N.C
	-20°C or -60°C / +60°C		T190°C	85°C
250 W Mercury vapor	-20°C or -60°C / +40°C	T3	T160°C	N.C
	-20°C or -60°C / +60°C		T190°C	85°C
3 x 36W Fluorescent	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C	T5		
60 W Fixed or flashing LED	-20°C or -60°C / +40°C	T6	T85°C	N.C
	-20°C or -60°C / +60°C	T5		
250 W Sodium vapor	-20°C or -60°C / +40°C	T3	T160°C	95°C
	-20°C or -60°C / +60°C			
250 W Metal halide	-20°C or -60°C / +40°C	T4	T135°C	95°C
	-20°C or -60°C / +60°C	T3		

N.C : Not Concerned
N.A : Not authorized

Type EVAC 500 LED or EVAC 501 LED

Type and power of lamp	Ambient temperature range	Concerned explosive atmosphere		Cable temperature
		Gas	Dusts	
48 W LED	-20°C or -40°C / +40°C	T3	T160°C	95°C
	-20°C or -40°C / +60°C			
96 W LED	-20°C or -40°C / +40°C	T4	T135°C	95°C
	-20°C or -40°C / +60°C	T3		

N.C : Not Concerned

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

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

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are modified as follow :

In accordance with clause 16.1 of the EN/IEC 60079-1 standard each apparatus defined above has to have successfully passed, before delivery, an overpressure test of a period comprised between 10 and 60 seconds under:

- 12.3 bar for ambient temperature down to -20°C for types EVAC 500 LED or EVAC 501 LED.
- 17.9 bar for ambient temperature down to -40°C for types EVAC 500 LED or EVAC 501 LED.
- 12.9 bar for ambient temperature down to -20°C for all other types.
- 14.2 bar for ambient temperature down to -60°C for all other types.

(16) DESCRIPTIVE DOCUMENTS

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

- (17) Certification file n° 13-202 rev.1 of 2015.02.15 (13 rubrics) signed on 2015.02.15

(18) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are modified as follow:

- The depth engagement of the threaded joints is superior to the value specified in the tables of EN/IEC 60079-1 standard.
- During the installation, the user will take into consideration that the window of EVAC 500 LED or EVAC 501 LED underwent only a shock corresponding to an energy of a low risk at 2J.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is completed or modified as follow :

- Conformity to the following standards :
 - EN 60079-0 : 2012/A11 : 2013 IEC 60079-0 : 2011
 - EN 60079-1 : 2007 IEC 60079-1 : 2007
 - EN 60079-31 : 2014 IEC 60079-31 : 2013
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2015 07 21



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