

INERIS

- (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 05ATEX0083X**

(4) Protective system or equipment:

ELECTRICAL ACTUATOR SERIE F02... or PremiTork... or EPI₂...

(5) Manufacturer: **BIFFI ITALIA s.r.l**

(6) Address: **Loc. Caselle S.Pietro
29017 Fiorenzuola d'Arda (PC)
ITALY**

(7) This protective 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 protective system or equipment 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 P59953/05

(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 November	2000 + A1
EN 50 019	of July	2000
EN 50 281-1-1	of September	1998 + A1
EN 13 463-1	of November	2001
EN 13 463-5	of December	2003

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

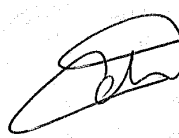
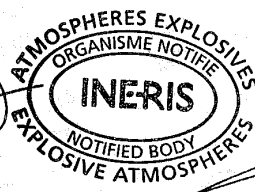
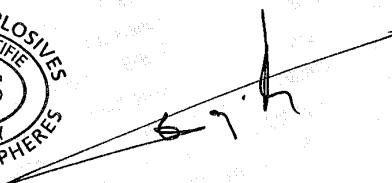
(10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.

- (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 2 GD**

**c EEx de IIB T5
T100°C IP66/IP68M**

Verneuil-en-Halatte, 2006 01 31

C.PETITFRERE

Engineer at the Laboratory of 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 05ATEX0083X

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

The enclosure made in light alloy, is intended to receive mainly an electric motor and an electronic part.

The terminal board is protected by increased safety.

The motor and the electrical circuits are protected by a thermal probe.

The enclosure gets the protection degrees IP66/IP68M according to the European standard EN 60 529 ; The verification of the protection degree IPX8 corresponds to an immersion under 10 meters of water during 48 hours.

PARAMETERS RELATING TO THE SAFETY

The tests have taken into account the ambient temperature of -40°C.

Maximum supply voltages :

Power circuit	: 550 V
Control circuit	: 175 V
Motors	: to 24 VDC from 240 VDC to 24 VAC from 240 VAC/1-ph/50-60 Hz to 208 VAC from 550 VAC/3-ph/50-60 Hz

Absorbed power of the motors : to 108 W from 480 W

Characteristic of thermal probe

Threshold of release : 85°C ± 5°C


The other electrical characteristics are stipulated on the descriptive documents.

MARKING

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

BIFFI ITALIA s.r.l
Loc. Caselle S.Pietro
I - 29017 Fiorenzuola d'Arda (Pc)

(*)
INERIS 05ATEX0083X
(Serial number)
(Year of construction)

 II 2 GD

c EEx de IIB T5
T100°C IP66/IP68M
T.Amb : to -20°C from 65°C or to -40°C from 65°C

DO NOT OPEN WHEN ENERGIZED

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

On the terminal board cover protected by increased safety :

- The code "e"
- (rated voltage and rated current and/or rated power)

On the cover protected by flameproof enclosure :

- The code "d"

(*) One of the following types :

- F02-063, F02-125, F02-250, F02-500, F02-1000 **or**
- PremiTork-063, PremiTork-125, PremiTork-250, PremiTork-500,
PremiTork-1000 **or**
- EPI₂-E6, EPI₂-E13, EPI₂-E25, EPI₂-E51, EPI₂-E91.

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.

ROUTINE EXAMINATIONS AND TESTS

According to 7.1 of standard EN 50 019, each sample of the increased safety part of the equipment must undergo a dielectric strength test, carried out in accordance with 6.1 of standard EN 50 019.

For the actuators models F02-063, F02-125, PremiTork-063, PremiTork-125 et EPI₂-E6, EPI₂-E13 for using to -20°C :

According to 16.2 of standard EN 50 018, the motor and the terminal box, defined above is exempted of routine test in view of the fact that it has undergone a static type test at 4 times the reference pressure under 16.8 bar.

For the actuators models F02-063, F02-125, PremiTork-063, PremiTork-125 et EPI₂-E6, EPI₂-E13 for using to -40°C :

According to 16.1 of standard EN 50 018, each sample of the flameproof enclosure defined above must have successfully passed before delivery an overpressure test, of a period comprised between 10 and 60 seconds, under 8.7 bar.

Pour les actionneurs série F02-250, F02-500, F02-1000 ou PremiTork-250, PremiTork-500, PremiTork-1000 ou EPI₂-E25, EPI₂-E51, EPI₂-E91 :

According to 16.1 of standard EN 50 018, each sample of the flameproof enclosure defined above must have successfully passed before delivery an overpressure test, of a period comprised between 10 and 60 seconds, under :

- 10.1 bar for using to -20°C
- 13.5 bar for using to -40°C

(16) DESCRIPTIVE DOCUMENTS

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

- Technical note DT-1587 rev.1 of 2005.12.05
- Instruction manual MAN 652 rev.2 of 2005.12.05
- Drawing n° 50040-1 rev.1 of 2005.12.05

These documents were signed on 2005.12.12

(17) SPECIAL CONDITIONS FOR SAFE USE

The screws used for the assembly of the main cover of explosion-proof enclosures must be of quality higher or equal to A4 class 80.

The screws used for the assembly of the other various parts of explosion-proof enclosures must be of quality higher or equal to A4 class 70.

(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, EN 50 019, EN 50 281-1-1, EN 13463-1 and EN 13463-5.
- The whole of the provisions adopted by the manufacturer and described in the descriptive documents.

ADDITION

(3) INERIS 05ATEX0083X/01

(4) ELECTRICAL ACTUATOR SERIE F02... or PremiTork... or EPI₂...

(5) Made by BIFFI

(15) PURPOSE OF THE ADDITION

Introduction of an intrinsic safety circuit into the compartment connection protected by increased safety and modification of the lid.

PARAMETERS RELATING TO THE SAFETY

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

MARKING

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

c EEx d e ia IIB T4
T135 °C IP66/IP68M

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.

- Technical file n° DT_1587_1	rev 0 of 2006.05.08 (3 pages)	signed on 2006.05.26
- Technical file n° DT_1606	rev 4 of 2006.05.27 (15 pages + drawings)	signed on 2006.05.27
- Manuel d'instruction MAN652-3	rev 0 of 2006.05.08 (9 pages)	signed on 2006.05.26
- drawing n° 50040-5	rev.1 of 2006.05.25	signed on 2006.05.26

(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 is completed as follows:

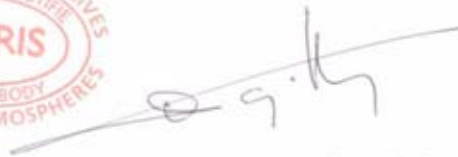
- Conformity to the European standard EN 50020.
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2006 05 28



T.DELBAERE

Project Manager at the ATEX Equipment
Certification Laboratory



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