

- (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.

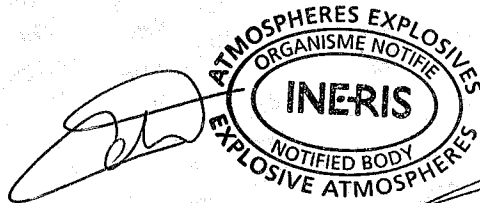
- (10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.

- (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 : $85^{\circ}\text{C} \pm 5^{\circ}\text{C}$


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 flameproof enclosure, 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.2 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:

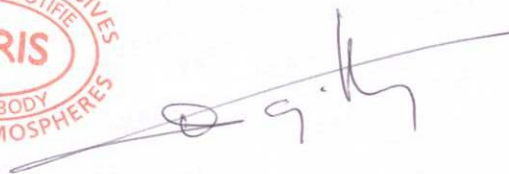
- Conformity to the European standard EN 50020.
- All provisions adopted by the manufacturer and defined in the descriptive documents.

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

ADDITION

(3) INERIS 05ATEX0083X/02

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

(5) Made by BIFFI ITALIA s.r.l

(15) PURPOSE OF THE ADDITION

- Application of the following standards:

EN 60079-0	: 2009	IEC 60079-0	: 2007
EN 60079-1	: 2007	IEC 60079-1	: 2007
EN 60079-7	: 2007	IEC 60079-7	: 2006
EN 60079-11	: 2007	IEC 60079-11	: 2006
EN 60079-31	: 2009	IEC 60079-31	: 2008
EN 13463-1	: 2009	EN 13463-5	: 2004
- Introduction of new versions F02-2000 or EPI₂-E171.
- Possibility to use new "IS" component on table 13.2 of the technical data DT_1606 rev.5.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are unchanged.

MARKING

The marking is modified as follows:

A- Enclosure without "IS" element:

BIFFI ITALIA s.r.l

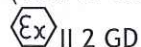
I - 29017 Fiorenzuola d'Arda (PC)

(*)

INERIS 05ATEX0083X

(Serial number)

(Year of construction)

 Ex II 2 GD

** Ex d e IIB T5 Gb

** = c only for Models F02-2000 and EPI₂-E171

** Ex tb IIIC T100°C Db IP66/68M ** = c only for Models F02-2000 and EPI₂-E171

T.Amb : -20°C to 65°C or -40°C to 65°C

FOR CABLE ENTRIES DIMENSIONS SEE INSTALLATION MANUAL

WARNINGS:

DO NOT OPEN THE COVER WHEN ENERGIZED.

DO NOT OPEN IF AN EXPLOSIVE ATMOSPHERE IS PRESENT

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests are modified as follows:

In accordance with clause 7.1 of the IEC/EN 60079-7 standard, a dielectric test strength on each of the different circuits of the connection units, performed according to the relevant standards, the supply voltage shall be applied during one minute.

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

According to 16.2 of standard IEC/EN 60079-1, the flameproof enclosure, 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 or EPI₂-E6 and EPI₂-E13 for using to -40 °C:

According to 16.1 of standard IEC/EN 60079-1, 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.

For the actuators models F02-250, F02-500, F02-1000, F02-2000 or PremiTork-250, PremiTork-500, PremiTork-1000, or EPI₂-E25, EPI₂-E51, EPI₂-E91 and EPI₂-E171:

According to 16.1 of standard IEC/EN 60079-1, 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 down to -20 °C
- 13.5 bar for using down to -40 °C

(16) DESCRIPTIVE DOCUMENTS

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

- Technical note	DT_1587_2	rev.0	of 2011.10.04
- Technical file	DT_1606	rev.5	of 2011.09.20
- Instructions manual	BIFIT-0091-EN 1009		of 2010 September
- Instructions manual	EBPRM-0091-EN 1006		of 2010 June
- Safety Instructions	MAN 652-3	rev. 1	of 2011.09.15
- Additional Safety Instructions	MAN 652-4	rev. 0	of 2011.07.20
- Additional Safety Instructions	MAN 652-5	rev. 0	of 2011.07.20
- Drawing n° 50040-1		rev.3	of 2011.07.12
- Drawing n° 50040-5		rev.2	of 2011.07.20
- Drawing n° 50040-14		rev.2	of 2011.07.21

All of these documents were signed on 2011.12.28

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

The special conditions are completed as follows:

- The gap and diametrical clearances of the explosion-proof joints are less than the values specified in the tables of the standard EN/IEC 60079-1.
- The width of the flameproof joints is superior to the values specified in the tables of the standard IEC/EN 60079-1.
- 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 SAFETY AND HEALTH REQUIREMENTS**

The respect of the Essential Health and Safety Requirements is modified as follows:

- Conformity to the standards quoted in clause (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2012.03.23



Director of the Certifying Body,
By delegation
T. HOUeix
Certification Officer
Certification Division

ADDITION

(3) INERIS 05ATEX0083X/03

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

(5) Made by BIFFI ITALIA s.r.l.

(15) PURPOSE OF THE ADDITION

- Application of the following standards:

EN 60079-0	: 2012/A11 :2013	IEC 60079-0	: 2011
EN 60079-1	: 2007	IEC 60079-1	: 2007
EN 60079-7	: 2007	IEC 60079-7	: 2006
EN 60079-11	: 2012	IEC 60079-11	: 2011
EN 60079-31	: 2009	IEC 60079-31	: 2013
EN 13463-1	: 2009		
EN 13463-5	: 2011		

- Change of the electronic boards in the part protected by Ex d, with new electrical parameters.

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

Electrical parameters of the power circuit		
Models	063(E6)-125(E13)	250(E25)-500(E51)-1000(E91)-2000(E171)
DC Voltage range	From 24 to 48 Vdc and from 100 to 240 Vdc	
Single phase Voltage range	From 24 to 48 Vac and from 100 to 240 Vac, frequency 50/60 Hz	
Three phases Voltage range	From 208 to 575 Vac, frequency 50/60 Hz	
Max nominal motor power	80 W	300 W
Max absorbed power	216 W	480 W
Max dissipated power	190 W	380W
Electrical parameters of the remote control circuit		
Voltage range from 24 to 120 V ac/dc		Max absorbed current 100 mA

MARKING

The marking is unchanged.

ROUTINE EXAMINATIONS AND TESTS

The routine examinations and tests 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 note	DT_1587	rev.2	of 2014.05.09
- Annex to Technical note	DT_1587_1	rev.1	of 2014.05.09
- Annex to Technical note	DT_1587_2	rev.1	of 2014.07.14
- Annex to Technical note	DT_1587_3	rev.0	of 2014.07.22
- Technical file	DT_1606	rev.6	of 2014.05.10
- Instructions manual	VCIOM-02819-EN 14/07		of 2014.07
- Instructions manual	VCIOM-02881-EN 14/07		of 2014.07
- Safety Instructions	MAN 652-3	rev. 2	of 2014.07.14
- Additional Safety Instructions	MAN 652-4	rev. 1	of 2014.07.14
- Additional Safety Instructions	MAN 652-5	rev. 1	of 2014.07.14
- Drawing n° 50040-1		rev.4	of 2014.05.09
- Drawing n° 50040-5		rev.3	of 2014.05.09
- Drawing n° 50040-14		rev.3	of 2014.05.09

All the documents were signed on 2014.08.05

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are unchanged.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

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

- Conformity to the standards quoted in clause (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2014.08.07

Dominique CHARPENTIER
Certification Division
Manager



A handwritten signature in blue ink, appearing to be "D Charpentier".

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