



(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 02ATEX0035 X**

(4) Protection apparatus or system:

**PRESSURIZED CABINET TYPE QCP...**

(5) Manufacturer: **Elettromeccanica.B.T.B**

(6) Address: **Via della tecnica,6  
I- 52025 MONTEVARCHI (AR)**

(7) This protection 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 23<sup>th</sup> March 1994, certifies that this protection system or equipment fulfils 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°36511/02.

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

- conformity with:

EN 50 014 - June 1997 + A1 and A2

EN 50 016 - October 1995

EN 50 020 - August 1994

- 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 of the type refers only to the design and the construction of the apparatus or protection system specified. If necessary, other requirements of this Directive will be imposed on the manufacture and the supply of this apparatus or protection system.
- (12) The marking of the equipment or the protection system will have to contain:

 II 2 G

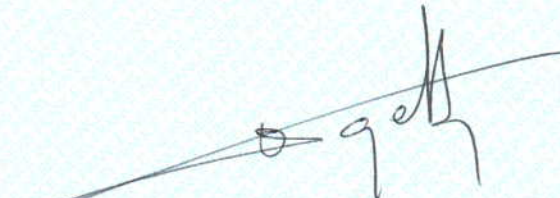
EEx p [ia/ib] ia IIB T4 to T3 or EEx p [ia/ib]ia IIC T4 to T3  
or EEx p ia IIB T4 to T3 or EEx p ia IIC T4 to T3

Verneuil-en-Halatte, 2002 08 20



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 02ATEX0035 X

(15) DESCRIPTION OF THE EQUIPMENT OR THE PROTECTION SYSTEM

Electrical cabinet of device and control protected by pressurized apparatus. Pressurization unit contains a flameproof enclosure fitted to intrinsic safety elements when located in hazardous area, permitting pressurization by leakage compensation.


The cabinet contains a set of equipment specified by descriptive documents, in particular one or more electrical equipment of certified type.

### PARAMETERS RELATING TO THE SAFETY

Maximum supply voltage	:	1000	V
Maximum power	:	750	kVA
Maximum current	:	1500	A
Frequency	:	50/60	Hz

### MARKING

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

- **Elettromeccanica B.T.B**  
Via della Tecnica  
I- 52025 MONTEVARCHI (AR)
- QCP... (1)
- INERIS 02ATEX0035 X
- (serial number)
- (Year of construction)
-  **II 2 G**
- Pressurized cabinet fitted with intrinsic safety equipment  
**EEx p [ia/ib]ia IIB T(\*) or EEx p [ia/ib]ia IIC T(\*)**
- Pressurized cabinet unfitted with intrinsic safety equipment  
**EEx p ia IIB T(\*) or EEx p ia IIC T(\*)**
- On the pressurization module, the marking : **[EEx p]**

(\*) Point is changed by indication of temperature class, either **T4** or **T3**.

(1) the type is completed by the above indications :

	<b>QCP0.15</b>	<b>QCP0.30</b>	<b>QCP0.45</b>
Free internal volume	0,1m <sup>3</sup>	0,2m <sup>3</sup>	0,3m <sup>3</sup>
Minimal purging flow rate of protective gas	9,1Nm <sup>3</sup> /h	9,1Nm <sup>3</sup> /h	14,3Nm <sup>3</sup> /h
Minimal purging duration	8 min	15 min	15 min
Minimal overpressure	80 Pa	80 Pa	80 Pa
Maximal overpressure	1500 Pa	1500 Pa	1500 Pa
Maximum leakage rate	0,32Nm <sup>3</sup> /h	0,5Nm <sup>3</sup> /h	0,7Nm <sup>3</sup> /h
Control point of overpressure	valve		

	<b>QCP0.60</b>	<b>QCP0.80</b>	<b>QCP1.00</b>
Free internal volume	0,4m <sup>3</sup>	0,53m <sup>3</sup>	0,66m <sup>3</sup>
Minimal purging flow rate of protective gas	26Nm <sup>3</sup> /h	26Nm <sup>3</sup> /h	29Nm <sup>3</sup> /h
Minimal purging duration	15 min	15 min	16 min
Minimal overpressure	80 Pa	80 Pa	80 Pa
Maximal overpressure	1500 Pa	1500 Pa	1500 Pa
Maximum leakage rate	1Nm <sup>3</sup> /h	1Nm <sup>3</sup> /h	1,5Nm <sup>3</sup> /h
Control point of overpressure	valve		

DO NOT OPEN WHEN ENERGIZED  
SEE INSTRUCTIONS BEFORE OPENING

Protective gas (if it's not air)  
If inert gas, the mention:  
CAUTION SUFFOCATION RISK

On the automation compartment including battery, when installed in pressurized cabinet:  
DO NOT OPEN IN EXPLOSIVE ATMOSPHERE

In case where different protection types are used for different parts of an electrical apparatus, each respective part shall include the sign of the concerned protection type.

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 hardware defined above must have successfully passed the following individual tests before delivery:

- an overpressure test shall be carried out as specified in section 14.1 in accordance with section 15.1 of standard EN 50 016.
- a leakage test shall be carried out as specified in section 14.2 in accordance with section 15.2 of standard EN 50 016.

**(16) DESCRIPTIVE DOCUMENTS**

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

- Descriptive Notice RT10008/4 Rev 2 (29 pages) dated and signed on 2002.08.12
- Drawings MD 20182/1 Rev 4(21 pages) dated and signed on 2002.08.12
- Instructions and Maintenance Manual (4 pages) dated and signed on 2002.08.12

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

- This equipment is intended to be used in a range of ambient temperatures to -20°C to 50°C.
- User shall take all convenient precautions before using by-pass system eventually included in the pressurization module.
- User shall connect, on intrinsic safety terminals, only elements with electrical characteristics below or equal to characteristics defined in any certificates of intrinsic safety elements.
- All electrical elements associated with this equipment and contributing to his convenient using and safety shall, when located in hazardous area, must be protected by one of well known type of protection, certified and suitable for considered using.
- When equipment is fitting with heating resistances these shall be energised only when equipment will be denergized.

**(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 50 016 and EN 50 020.
- the whole of the provisions adopted by the manufacturer and described in the descriptive documents.