



(1) **EC-TYPE-EXAMINATION CERTIFICATE** (Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 02 ATEX 1133



(4) Equipment: Switchgear and control assembly, type FHxxxS-xxxxxxx

(5) Manufacturer: ABB Automation Products GmbH

(6) Address: Borsigstraße 2, 63755 Alzenau, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 02-12308.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2

EN 50018:2000

EN 50019:2000

EN 50020:1994

EN 50028:1987

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:



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Zertifizierungsstelle Explosionsschutz

Braunschweig, November 25, 2002

By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor



SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 02 ATEX 1133**

(15) Description of equipment

The switchgear and control assembly, type FHxxxS-xxxxxxx, consists of an enclosure which is made of stainless steel or plastics and is designed to type of protection Increased Safety "e". The assembly is to accommodate switch and control gear, measuring instruments, as well as terminals for intrinsically safe and non-intrinsically safe circuits. The terminal section for intrinsically safe circuits will be identified, e.g. by a light-blue colour. Connection is by means of explosion-proof cable entries.

The empty enclosure, as well as all the internally and externally fitted elements are tested and certified under separate examination certificates.

Technical data

Rated voltage:* up to	230 V AC or 30 V DC
Rated current:* max	20 A
Rated cross section:* max.	16 mm ²

**) depending on the type of terminal and explosion-proof elements used*

Ambient temperature range: -40 °C to +70 °C

The ratings specified are maximum values; actual values will be subject to the electrical equipment used from case to case. Depending on the system conditions, the mode of operation, the utilisation category, etc., the manufacturer will define the definitive ratings which will be within the range of these limiting values and will comply with the relevant standards.

The admissible temperature range of the fitted elements must not be exceeded.

The composition of the protection symbol will be based on the types of protection of the components actually used.

(16) Test report PTB Ex 02-12308

(17) Special conditions for safe use

None

Notes for installation and use

Equipment designed to type of protection Intrinsic Safety "i" shall be installed in such a way that the clearance and creepage distances that are required according to EN 60079-14 between intrinsically safe and non-intrinsically safe circuits are duly considered.

If system installation and layout does not provide for the clearance requirements for connectors as specified in EN 50020, wiring that meets the quality criteria Increased Safety "e" shall be used, or the wiring shall be of the fail-safe type.

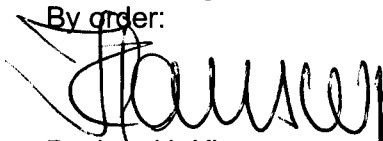
When using more than one intrinsically safe circuit, the rules and regulations for interconnection shall duly be observed.

(18) Essential health and safety requirements

met by the standards mentioned before

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