

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin



(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 03 ATEX 3045



(4) Equipment: TMP tripping devices, type U-EK230E

(5) Manufacturer: Ziehl-Abegg AG

(6) Address: Heinz-Ziehl-Strasse, 74653 Künzelsau, 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 03-33184.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60947-1; EN 60947-5 EN 60947-8 (DIN VDE 0660 part 302) DIN VDE 0660 part 303
EN 60079-14

(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
By order:

Braunschweig, September 10, 2003

Dr.-Ing. F. Lienesch
Oberregierungsrat

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Physikalisch-Technische Bundesanstalt

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SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 03 ATEX 3045**

(15) Description of equipment

The TMP tripping devices types U-EK230E work according to the closed-circuit principle.

Among the most important functions are: overtemperature detection, detection of wire interruption and short-circuit detection in all detector circuits.

The operating state of supply voltage and failures (overtemperature, PTC wire interruption and PTC short-circuit) is signaled by LED displays.

Additional information can be taken from the operating instructions "Motor protection and TMP tripping devices (PTC thermistor) of type U-EK230E (Art-No. 382000) of June 12, 2003", which are enclosed to the devices or downloaded from the Internet www.ziehl-abegg.de or info@ziehl-abegg.de.

All functions in the TMP tripping devices serve to protect non-explosion-protected motors and explosion-protected motors in regular operation and in case of failure.

(16) Test report PTB Ex 03-33184

(17) Special conditions for safe use

none

(18) Essential health and safety requirements

The tests carried out and their positive results as well as the proof furnished of March 18, 2003 [Technical description (1058 1600)] have confirmed compliance with the standards and thus with Directive 94/9/EC, Annex II (in particular point 1.5). Suitably selected and adjusted safety devices of this type are necessary for the safe operation of motors of the "Increased Safety" type of protection. The devices themselves are installed outside potentially explosive atmospheres (article 1, section 2 of the Directive).

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, September 10, 2003

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