

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

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

(3) EC-type-examination Certificate Number:

PTB 99 ATEX 1080 U

(4) Equipment: Heating circuit, type 27-3611-..../....

(5) Manufacturer: BARTEC Componenten und Systeme GmbH

(6) Address: Max-Eyth-Strasse 16, D-97980 Bad Mergentheim

(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 99-18069.

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

EN 50014:1997 EN 50019:1994

(10) The sign “U” placed behind the certificate number indicates that this certificate should not be confounded with certificates issued for equipment or protective systems. This Component Certificate only serves as a basis for the issuing of certificates for equipment or protective systems.

(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:

 **II 2 G EEx e II**

Zertifizierungsstelle Explosionsschutz
By order.

Braunschweig, July 26, 1999

Dr.-Ing. U. Klausmeyer
Oberregierungsrat

(13)

SCHEDULE

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1080 U**

(15) Description of equipment

The EMK Heating circuit type 27-3611-.../... consists of single core mineral insulated Cold- and Heating conduits, connection- or linking components and the corresponding single cores. This heating circuit is for the electric heating of work pieces, pipes, tanks and vessels.

Technical specifications:

Dimension voltage:	max. 500 V
Cross section of connection wires:	2,5 mm ²
Minimum allowed temperature at the cold lead connection:	- 40 °C
Allowed temperature at the heating cable:	- 40 ... + 400 resp. + 440 °C (depends on the type)
Minimum length of the cold lead:	1 m
Minimum bend radius:	5 x d

(16) Test report PTB Ex 99-18069

(17) Special conditions for safe use
None

(18) Essential health and safety requirements
Covered by the Standards mentioned above.

Setting up instructions:

1. The heating circuits have to be equipped with a safety measure according to EN 50019 Annex D
2. The specification of the temperature class may effect by:
 - thermic systematic sampling under observation of the local and operational aspects and acceptance by an Explosion-expert.
 - type testing i.e. in connection with other equipment, on the occasion of resubmission at a certified testing authority
3. For an ambient temperature of < - 25 °C a fix installation of the single cores is required.

Zertifizierungsstelle Explosionsschutz
By order.

Braunschweig, July 26, 1999

Dr.-Ing. U. Klausmeyer
Oberregierungsrat