



Prüf- und Zertifizierungsstelle

ZELM Ex



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

- (2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**
- (3) EC-TYPE-EXAMINATION CERTIFICATE Number:

ZELM 03 ATEX 0173 U

- (4) Component: **Radiator type Ex HKA ...U/AT.**
- (5) Manufacturer: **Erich Ott**
- (6) Address: **D-65189 Wiesbaden**
- (7) This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- (8) The Prüf- und Zertifizierungsstelle ZELM Ex, notified body No. 0820 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this component 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 ZELM Ex 0400312225.

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

EN 50 014: 1997+A1+A2

EN 50019 : 2000

EN 50028: 1987

- (10) The sign "U" placed behind the certificate number indicates that this certificate should not be confused 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 component in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this Certificate.
- (12) The marking of the component must include the following:



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Braunschweig, October 13, 2003

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EC EC-type-examination Certificates without signature and stamp are not valid. The certificates may only be circulated without alteration. Extracts or alterations are subject to approval by the Prüf- und Zertifizierungsstelle ZELM Ex. This English version is based on the German text. In the case of dispute, the German text shall prevail.



(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE ZELM 03 ATEX 0173 U

(15) Description of component

The radiator serves as heating of cabinet particularly for instrument protective boxes. The use is only allowed with adequate outer protection.

The radiator has not devices to limit the surface temperature. The maximum permissible surface temperature in accordance with the essential temperature class has to be guaranteed depending on design with external devices.

The radiator is composed of two two-core, mineral isolated even pipe rod elements. The power supply occur by a fixed connected, temperature-resistant cable. The terminal compartment is encapsulated with potting material. The heating rods are steam diffused sealed with the potting material. The tests in accordance with appendix F.3 of the EN 50019:2000 are passed.

The lower limit of the ambient temperature is -40°C.

The maximum ambient temperature is 130°C. However the maximum temperature at the encapsulation of the terminal compartments should not pass 150°C respectively the maximum surface temperature of the radiator should not pass 200°C.

Electrical Data

Main circuit	Rating voltage:	88 V to 230 V - 48-64 Hz depending on design
	Rated current:	1,8 A to 4,4 A depending on design
	Nominal power:	max. 370 W

Notes:

The operating instruction shall be observed. The definite instructions are considered in particular with respects to the installation, the limit of the temperature and the power limiter with the associated invigilator.

A suitable over current device has to be connected in series to the radiator, which safely prevents high short-circuit to earth.

(16) Report No.

ZELM Ex 0400312225

(17) Special conditions for safe use

not applicable

(18) Essential Health and Safety Requirements

met by standards

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