



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 0174 X

(4) Equipment: **Radiator Type Ex HKA.../100AT...**

(5) Manufacturer: **Erich Ott**

(6) Address: **D-65189 Wiesbaden**

(7) This equipment 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 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 Nr. ZELM Ex 0920315228.

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

**EN 50 014: 1997+A1+A2
EN 50 028: 1987**

EN 50 018: 2000

EN 50 019: 2000

(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 or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this Certificate.

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



II 2 G EEx emd IIC T3

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Dipl.-Ing. Harald Zelm



Braunschweig, October 31, 2003

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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.

Prüf- und Zertifizierungsstelle ZELM Ex • Siekgraben 56 • D-38124 Braunschweig



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(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE ZELM 03 ATEX 0174 X

(15) Description of equipment

The radiator is used for heating of switching boards particularly for instrument protective boxes. The use is only allowed with adequate outer protection. The radiator is manufactured with limiter and controller unit.

The allowable ambient temperature range is -40°C to +40°C.

Electrical Data

Main circuit	Rating voltage:	90 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
Control circuit	Rating voltage:	230 V
	Rated current:	6 A

(16) Report No.

ZELM Ex 0920315228

(17) Special conditions for safe use


1. The operating instructions shall be observed.
2. The use of the radiator is only allowed with a suitable temperature control system which secures the abidance of the maximum ambient temperature of +40°C while normal use. A phase loss in case of three phase power systems has to be taken into account.
3. An installation of the radiator shall only be made when local overheating can be excluded.
4. The radiator has to be connected with an overload protection which also safely prevents unallowable earth leakage currents.

(18) Essential Health and Safety Requirements

met by standards

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1. Supplement

(Supplement according to EC-Directive 94/9 Annex III letter 6)

to EC-type-examination Certificate

ZELM 03 ATEX 0174 X

Equipment: **Radiator type Ex HKA .../100AT...**

Manufacturer: **Erich Ott**

Address: **D-65189 Wiesbaden**

Description of supplement

The radiator type Ex HKA... /100AT... will be extended by an alternative version in the future. The modifications refer to the inner construction, the type marking and the temperature class. All technical data and the special conditions for safe use remain unchanged.

The type designation of the alternative version is: **Type Ex HKA .../100AT... 4**

The marking of the alternative version is:



II 2 G EEx emd IIC T4

Note :

The operating instructions have to be observed.

Report No.

ZELM Ex 1220315250

Special conditions for safe use

no additional ones

Essential Health and Safety Requirements

The essential Health and Safety Requirements are further met by concordance with the standards scheduled in the EC-Type-Examination Certificate.

Zertifizierungsstelle ZELM Ex



Braunschweig, November 18, 2003

Dipl.-Ing. Harald Zelm

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2. Supplement

(Supplement according to EC-Directive 94/9 Annex III letter 6)

to EC-type-examination Certificate

ZELM 03 ATEX 0174 X

Equipment: Radiator type Ex HKA .../100AT...

Manufacturer: Erich Ott

Address: D-65189 Wiesbaden

Description of supplement

The modification of the Radiator Type Ex HKA .../100AT... refers to the permissible ambient temperature range. All technical data and special conditions for safe use remain unchanged. The permissible ambient temperature range is in the future -40°C to $+80^{\circ}\text{C}$. The equipment may be manufactured in future also in consideration of this 2. Supplement.

Report No.

ZELM Ex 0880717551

Special conditions for safe use

no additional ones

Essential Health and Safety Requirements

The essential Health and Safety Requirements are further met by concordance with the standards scheduled in the EC-Type-Examination Certificate.

Zertifizierungsstelle ZELM Ex



Braunschweig, August 09, 2007


Dipl.-Ing. Harald Zelm