



(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 01 ATEX 1145 U



(4) Component: Heater and switchgear enclosure, type DH.A.-...

(5) Manufacturer: ELMESS Thermosystemtechnik GmbH & Co.

(6) Address: Nordallee 1, D-29525 Uelzen, Germany

(7) This component 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 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 PTB Ex 01-11008.

(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

(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 component in accordance to 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 shall include the following:

II 2 G EEx de IIC

Zertifizierungsstelle Explosionsschutz

Braunschweig, January 08, 2002

By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor



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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.

(13) **SCHEDULE**

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 01 ATEX 1145 U**

(15) Description of component

Heater and switchgear enclosure, type DH.A.-..., for setting up complete heating installations and switchgear, e.g. level switches.

Type group 'A' comprises enclosure sizes 00 and 0.

Technical data

Rated voltage, max.	690 V
Rated current, max.	35 A
Rated cross section, max.	4 or 6 mm ²
Max. permissible temperature in the terminal box	60 °C

(16) Test report PTB Ex 01-11008

(17) Special conditions for safe use

None;

Additional information for installation and use

1. The temperature class can be determined on the basis of:
 - thermal routine testing, due regard being given to local and operational conditions, and acceptance testing by an expert for explosion-proof equipment or an approved inspection agency.
 - type test, e.g. in conjunction with other items of equipment, when re-submitted to an approved testing agency.
2. Thermal routine testing shall also include testing for compliance with the max. permissible operating temperatures of the components/elements used. Due regard shall in this context be given to the ambient temperature, the self-heating rate, and any thermal conduction.
3. Within the potentially explosive atmosphere, the surface temperature of heated systems must not exceed the temperature limit of the relevant temperature class (thermal conduction to be duly observed)
4. The sensors of the temperature limiters shall be positioned so as to account for phase failure in three-phase systems.

5. Liquids may be heated only if adequate cover is guaranteed. This requirement can be accounted for by providing level switches or similar safety measures.
6. Flowing media may have to be additionally monitored by means of a flow controller, which will maintain minimum throughput.
7. The safety related measures when closed systems are heated shall be inspected separately.
8. Due regard shall be given to the operating instructions provided by the manufacturer.

(18) Essential health and safety requirements

Covered by compliance with the above standards.

Zertifizierungsstelle Explosionsschutz

By order:




Dr.-Ing. U. Klausmeyer
Regierungsdirektor



Braunschweig, January 08, 2002

1st SUPPLEMENT
according to Directive 94/9/EC Annex III.6
to EC-TYPE-EXAMINATION CERTIFICATE PTB 01 ATEX 1145 U
(Translation)

Equipment: Heater enclosure, type DH.A.-...

Marking:  II 2 G EEx d IIC resp. EEx de IIC
 II 2 D IP 66

Manufacturer: ELMESS Thermosystemtechnik GmbH & Co. KG

Address: Nordallee 1, 29525 Uelzen, Germany

Description of supplements and modifications

The heater enclosure, type DH.A.-..., is subjected to the following optional modifications (either individually or as combinations):

- 1) Use for zone 21
- 2) Enclosures type DH.A 00 ... manufactured with reduced length
- 3) Enclosures type DH.A 00 ... manufactured with modified bottom
- 4) Enclosures types DH.A 0 ... and DH.A 00 ... with modified cable glands, modified bottom plate, and modified protective sensor tube.
- 5) Extended ambient temperature range:

Type DH.A.-... with cover in grey iron	up to max. -40°C
Type DH.A.-... EEx d steel	up to max. -50°C
Type DH.A.-... EEx d stainless steel	up to max. -60°C

Applied standards

EN 50014:2004

EN 50019:2004

EN 50018:2004

EN 50281-1-1:1998

Test report: PTB Ex 07-16286

Notes for manufacturing and operation

- 1) The thermal routine test for the versions intended for use in zone 21 must also consider the surface temperature with respect to flammable dusts.
- 2) The elements and components used are defined in the test documents. When products of an equivalent technical standard are used, the manufacture must verify their conformity, and their fitness for use must be documented and kept on files.
- 4) The operating instructions concerned have to be corrected as required.
- 5) All other notes in the EC Type Examination Certificate remain unchanged.

Zertifizierungsstelle Explosionsschutz

Braunschweig, 5 October 2007

By order:


Dr.-Ing. habil. Friedhelm
Obermayer



Physikalisch-Technische Bundesanstalt • Postfach 33 45 • 38023 Braunschweig

ELMESS
Thermosystemtechnik GmbH & Co. KG

Nordallee 1
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Ihr Zeichen:
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Unser Zeichen: 3.53-3343/2008-Rg
Unsere Nachricht vom:

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Datum: 20. Juni 2008

Normengenerationsänderung nach EN 60079-0 ff
Heizkörpergehäuse Typ DHA ...
EG-Baumusterprüfbescheinigung PTB 01 ATEX 1145 U

Ihre Anfrage vom 06. Juni 2008

Sehr geehrter Herr Mühe,

es bestehen keine sicherheitstechnischen Bedenken, die o.g. Komponente mit folgenden Kennzeichnungen zu versehen:

 II 2 G Ex d bzw. de IIC

 II 2 D Ex tD A21 IP66

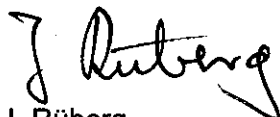
Die Normengenerationsänderung ist in einer zukünftigen Ergänzung zur EG-Baumusterprüfbescheinigung mit aufzunehmen.

Zusätzlicher Hinweis für Errichtung und Betrieb

Eine Reparatur an den zünddurchschlagsicheren Spalten darf nur durch den Hersteller erfolgen bzw. im Auftrag des Herstellers unter seiner Verantwortung. Die Reparatur entsprechend den Werten der Tabellen 1 und 2 der EN 60079-1 ist nicht zulässig.

Dieser Hinweis ist den bestehenden Hinweisen in der Betriebsanleitung hinzu zu fügen.

Mit freundlichen Grüßen



J. Rüberg

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