



**Translation**

(1) **EC-Type Examination Certificate**

(2) **- Directive 94/9/EC -**  
**Equipment and protective systems intended for use**  
**in potentially explosive atmospheres**

(3) **BVS 06 ATEX E 102 X**

(4) **Equipment: Heater enclosure type D..M0../-...-**

(5) **Manufacturer: ELMESS-Thermosystemtechnik GmbH & Co. KG**

(6) **Address: 29525 Uelzen, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.

(8) The certification body of EXAM BBG Prüf- und Zertifizier GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council 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 test and assessment report BVS PP 06.2139 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 60079-0:2004            General requirements  
EN 60079-1:2004            Flameproof enclosure 'd'  
EN 50281-1-1:1998 +A1    Dust explosion protection

(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 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 2G Ex d IIC**  
**II 2D IP66**

**EXAM BBG Prüf- und Zertifizier GmbH**

Bochum, dated 05. December 2006

Signed: Dr. Jockers

Signed: Dr. Eickhoff

\_\_\_\_\_  
Certification body

\_\_\_\_\_  
Special services unit

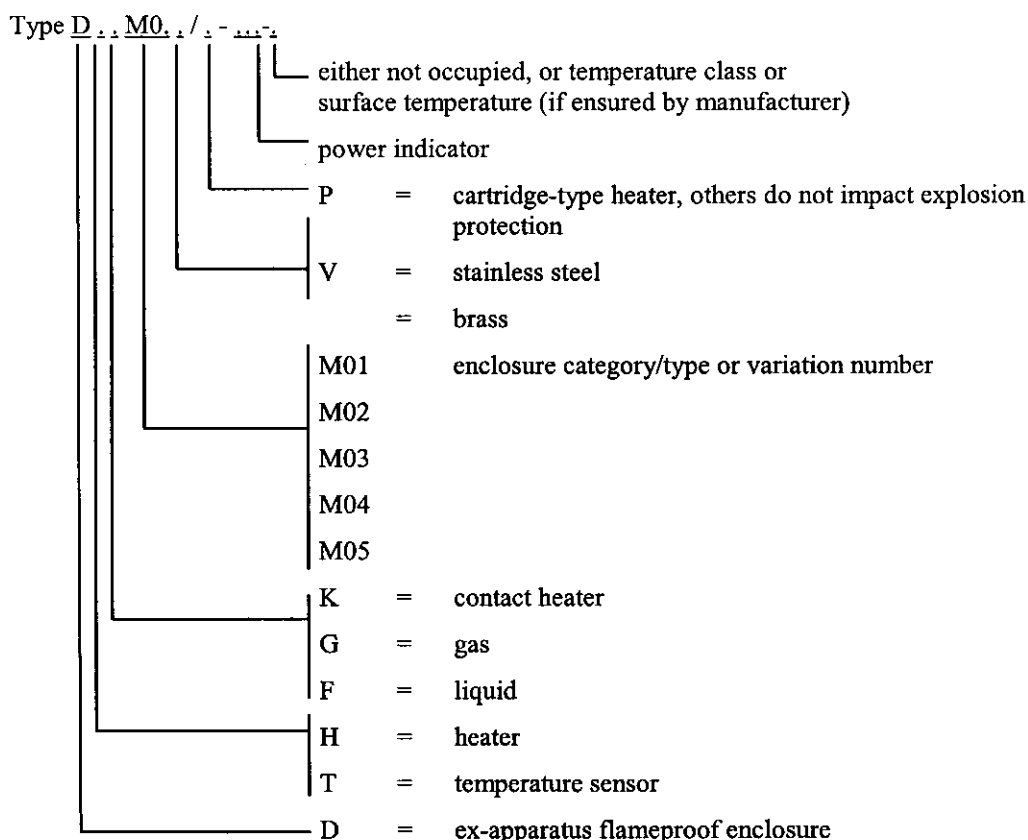
(13) Appendix to

(14) **EC-Type Examination Certificate**

**BVS 06 ATEX E 102 X**

(15) 15.1 Subject and type

Enclosure type DH.M0../-...-



15.2 Description

The heater enclosure is manufactured according to the type of protection Flameproof Enclosure. The temperature class, a control unit that may be required in certain cases and any further conditions of use are all defined when testing the complete heating system.

The heater enclosures of types M01 to M04 consist of two parts each that are screwed together by means of an inch-long thread. The heater enclosure of type M05 consists of two parts of which the hexagonal part is directly joined with the tubular part by means of either welding or hard soldering. The tubular part of the enclosure serves the purpose of housing the heating coils. This part is filled with magnesium oxide and sealed in a highly solid manner. The other part, which is available as either a hexagonal enclosure or as a finned one, can be provided in brass or stainless steel and serves the purpose of fitting a cable entry. The heating is connected by means of a cable permanently installed in the heater enclosure.

15.3 Parameters

Nominal voltage	up to	AC/DC 500 V
Nominal current	up to	2000 W
Connection profile	min.	1.5 mm <sup>2</sup> max. 2.5 mm <sup>2</sup>
Ambient temperature range	up to max.	-50 °C, up to max. +40 °C

The ambient temperature range stated can deviate from the maximum values set, something which depends on the cable glands, lead and materials used. In this regard the instruction manual and the specifications provided by the manufacturer have to be observed.

(16) Test and assessment report

BVS PP 06.2139 EG as of 05.12.2006

(17) Special conditions for safe use

- 17.1 The temperature class, a control unit if required (level, flow) and further conditions of use (ambient temperature, self-heating, heat conduction, fitted position etc.) all have to be defined when testing the entire heating system.
- 17.2 The apparatus shall only be connected using the lead fitted. This lead has to be connected observing the instructions provided. The connecting space in a potentially explosive atmosphere has to meet the requirements of an acknowledged type of protection according to EN 60079-0.
- 17.2 The equipotential bonding has to be established via the nipple, flange or the bushing.
- 17.3 The heater has to be mounted in such a manner that it will be protected against mechanical stress.

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We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 11.12.2006  
BVS-Kem/Ar A 20060437

**EXAM BBG Prüf- und Zertifizier GmbH**

  
\_\_\_\_\_  
Certification body

  
\_\_\_\_\_  
Special services unit



Translation

# 1<sup>st</sup> Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

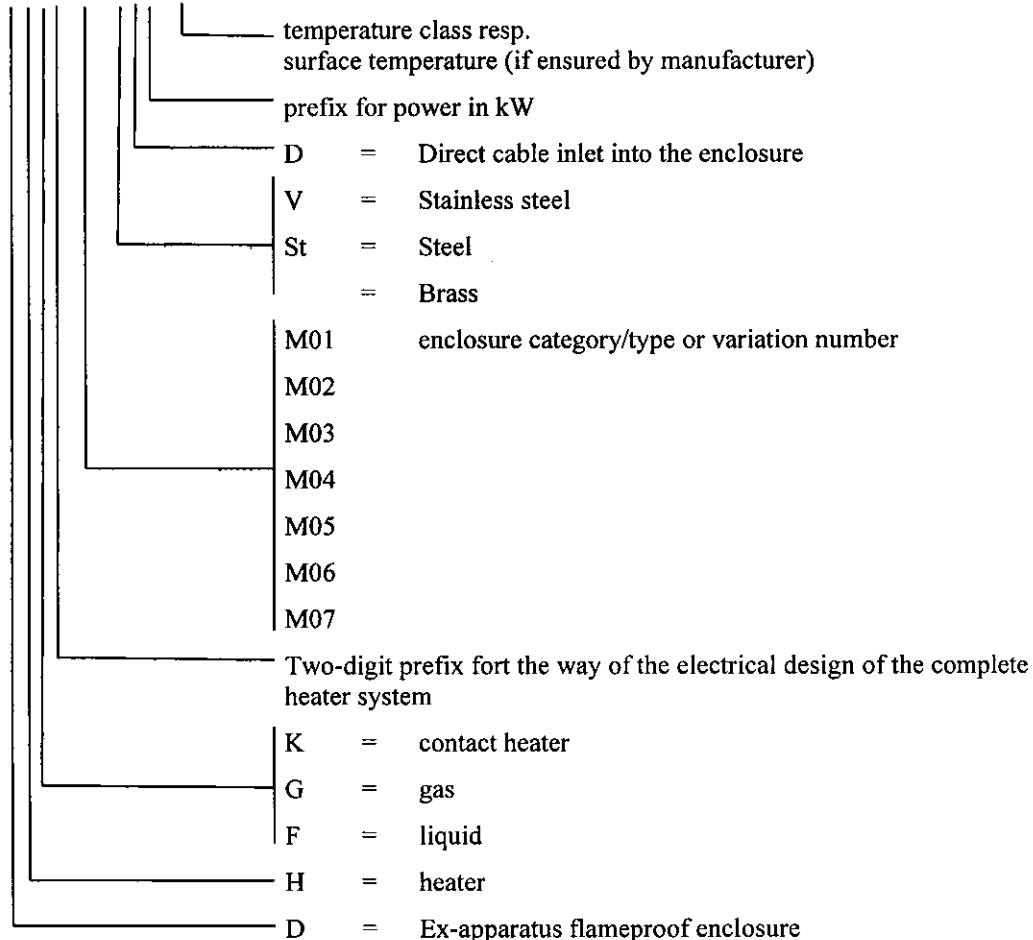
## to the EC-Type Examination Certificate BVS 06 ATEX E 102 X

**Equipment:** Heater enclosure type D..M0...-T.  
**Manufacturer:** ELMESS-Thermosystemtechnik GmbH & Co. KG  
**Address:** 29525 Uelzen, Germany

Description

The heater enclosure type D..M0../-...- can be manufactured in changed design and will get the new type designation heater enclosure type D..M0...-T.

Type D . . . M0 . . . -T.



The heater enclosure type D...M0...-T. can be manufactured with other threads for the heater tubular part and the cable entry. For the enclosure material steel can be used. Additionally the rated voltage, the maximum connection wire cross section and the ambient temperature range are changed.

The temperature class, a control unit that may be required in certain cases and any further conditions of use are all defined when testing the complete heating system.

#### Parameters


Nominal voltage	up to	AC/DC 800 V
Nominal current	up to	20 A
Connection profile	min.	1.5 mm <sup>2</sup> max. 4 mm <sup>2</sup>
Ambient temperature range	up to max.	-60 °C, up to max. +60 °C

The stated ambient temperature range can deviate from the maximum values set depending on the cable glands, lead and materials used. In this regard the instruction manual and the specifications provided by the manufacturer have to be observed.

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 60079-0:2004	General requirements
EN 60079-1:2004	Flameproof enclosure 'd'
EN 61241-0:2006	General requirements
EN 61241-1:2004	Protection by enclosures

The marking of the equipment shall include the following:

 **II 2G Ex d IIC**  
**II 2D Ex tD A21 IP66**

#### Special conditions for safe use

Unchanged

#### Test and assessment report

BVS PP 06.2139 EG as of 30.07.2008

### DEKRA EXAM GmbH

Bochum, dated 30. July 2008

Signed: Dr. Jockers

Signed: Dr. Wittler

\_\_\_\_\_  
Certification body

\_\_\_\_\_  
Special services unit

We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 07.08.2008

BVS-Kem/Ar E 1183/08

**DEKRA EXAM GmbH**

  
\_\_\_\_\_  
Certification body

  
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Special services unit