



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx BVS 13.0042U issue No.: 0 Certificate history:

Status: Current

Date of Issue: 2013-04-19 Page 1 of 4

Applicant: **BARTEC GmbH**
Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Electrical Apparatus: **EMK single-core mineral-insulated heating circuit Type 27-3641-*2**/****/******
Optional accessory:

Type of Protection: **Electrical resistance trace heating - General and testing requirements, Equipment dust ignition protection by enclosure 't', Equipment protection by increased safety "e"**

Marking: Ex e IIC Gb
Ex tb IIIC Db

Approved for issue on behalf of the IECEx
Certification Body:

Dr. F. Eickhoff

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

Date:

2013 - 04 - 19

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
DEKRA EXAM GmbH



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Manufacturer: **BARTEC GmbH**
Max-Eyth-Str. 16
97980 Bad Mergentheim
Germany

Additional Manufacturing location
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

- | | |
|---|---|
| IEC 60079-0 : 2007-10
Edition: 5 | Explosive atmospheres - Part 0: Equipment - General requirements |
| IEC 60079-30-1 : 2007-01
Edition: 1 | Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements |
| IEC 60079-31 : 2008
Edition: 1 | Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't' |
| IEC 60079-7 : 2006-07
Edition: 4 | Explosive atmospheres - Part 7: Equipment protection by increased safety "e" |

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
[DE/BVS/ExTR13.0045/00](#)

Quality Assessment Report:
[DE/TUN/QAR06.0017/04](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

1.) Subject and Type

EMK single-core mineral-insulated heating circuit type 27-3641-*2**/****/****

2.) Description

The EMK single-core mineral-insulated heating circuit type 27-3641-*2**/****/**** is a cable which is ready for connection. Cold leads are connected to both ends of the heating cable with the aid of welded or soldered pipe couplings.

The ends of the cold leads are equipped with terminations. These terminations seal the MI-cable and they are also used as a cable entry to lead the ends of the cold leads into an enclosure in type of protection Increased safety "e" (for Gb) or into an enclosure in type of protection by enclosure "t" (for Db).

The mineral insulated heating cables are manufactured in various lengths and with various diameters, sheath materials and electrical resistances.

Temperature control and temperature monitoring is not a subject of this certificate of the heating cable.

3.) Parameters

rated voltage	up to	AC	500 V
rated current			
with cold lead 2.5 mm ²	up to		30 A
with cold lead 6 mm ²	up to		55 A
resistance of the heating cables	160 Ω/km up to	10	kΩ/km
resistance of the cold leads	3 Ω/km up to	7	Ω/km
minimum bending radius	5x cable diameter		
Permissible operating temperature at the terminations	-55	up to	70 °C
Permissible operating temperature of the cable	-70	up to	650 °C
Minimum installation temperature			-55 °C

CONDITIONS OF CERTIFICATION: NO





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EQUIPMENT(continued):

4.) Schedule of limitations

The installation has to comply with the parameters given in clause 3 (minimum bending radius, minimum installation temperature).

The cold leads of the heating cable have to be led into an enclosure in type of protection Increased safety "e" (for Gb) or into an enclosure in type of protection Protection by enclosure "t" (for Db).