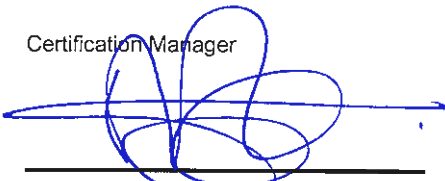




IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx KEM 07.0047U issue No.:1
Status: **Current**
Date of Issue: 2012-12-07 Page 1 of 5
Applicant: **BARTEC GmbH**
Max-Eyth-Straße 16
D-97980 Bad Mergentheim
Germany
Electrical Apparatus: **Self Limiting Heating Cable series PSB type 07-5801-**** and PSBL type 07-5807-******
Optional accessory: N/A
Type of Protection: **Ex e, Ex tb**
Marking: Ex e IIC T5, T6 Gb
Ex tb IIIC T 95 °C, T 80 °C Db
Approved for issue on behalf of the IECEx Certification Body: T. Pijpker
Position: Certification Manager
Signature: 
(for printed version)
Date: 2012-12-07

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 Certification B.V.
Utrechtseweg 310
6812 AR Arnhem
The Netherlands

All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group.





IECEx Certificate of Conformity

Certificate No.: IECEx KEM 07.0047U

Date of Issue: 2012-12-07

Issue No.: 1

Page 2 of 5

Manufacturer: **BARTEC GmbH**
Max-Eyth-Straße 16
D-97980 Bad Mergentheim
Germany

Additional Manufacturing location
(s):

BARTEC GmbH
Max-Eyth-Straße 16
D-97980 Bad Mergentheim
Germany

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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: 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'

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:
NL/KEM/ExTR07.0053/00

NL/KEM/ExTR07.0053/01

Quality Assessment Report:

DE/TUN/QAR06.0017/04



IECEx Certificate of Conformity

Certificate No.: IECEx KEM 07.0047U

Date of Issue: 2012-12-07

Issue No.: 1

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Self Limiting Heating Cable series PSB and PSBL are parallel trace heaters, used to raise or maintain the temperature of a workpiece where it is externally applied to. The PSB and PSBL heating cable series consist of an electrical resistance heater element with positive temperature coefficient. This means that the PSB and PSBL heating cable series reduce their power output with increasing temperature.

Maximum operating temperature, power "on": +65 °C
Maximum withstand temperature, power "off": +85 °C
Minimum start-up temperature: -40 °C (PSB only)
-30 °C (PSBL only)
Minimum installation temperature: -55 °C
Minimum bending radius: 25 mm

CONDITIONS OF CERTIFICATION: NO



IECEx Certificate of Conformity

Certificate No.: IECEx KEM 07.0047U

Date of Issue: 2012-12-07

Issue No.: 1

Page 4 of 5

EQUIPMENT(continued):

Schedule of Limitations

Connections and terminations for installation with the PSB and PSBL heating cable series shall be certified according to the requirements of the applicable standards for their types of protection for potential explosive gas and/or combustible dust atmosphere, as well as the requirements of IEC 60079-30-1 as integral parts of this trace heating system.

For the connection of the heating cable to power certified glands, enclosures and terminals shall be used that are suitable for the application and are correctly installed. The cable glands shall be mounted in an enclosure in such a way that the ingress protection ratings are ensured as follows. IP54 for use in explosive atmospheres caused by the presence of flammable gas and/or vapours. IP6X for use in explosive atmospheres caused by the presence of combustible dust. Ingress protection ratings according to IEC 60529.

When used in TT and TN systems a residual current device according to IEC 60079-30-1, clause 4.3 point d) shall be installed. When used in IT systems an insulation monitoring device according to IEC 60079-30-1, clause 4.3 point e) shall be used.



IECEx Certificate of Conformity

Certificate No.: IECEx KEM 07.0047U

Date of Issue: 2012-12-07

Issue No.: 1

Page 5 of 5

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- 1 Addition of specification of maximum circuit lengths for heat tracing circuits, protected with 25 A, C-characteristic circuit breakers
- 2 IEC 60079-0 : 2004 Ed.4 updated to IEC 60079-0 : 2011 Ed.6
- 3 IEC 61241-0 : 2004 Ed.1 replaced by IEC 60079-0 : 2011 Ed.6
- 4 IEC 61241-1 : 2004 Ed.1 replaced by IEC 60079-31 : 2008 Ed.1
- 5 EN 60079-0 : 2006 updated to EN 60079-0 : 2012
- 6 EN 61241-0 : 2006 replaced by EN 60079-0 : 2012
- 7 EN 61241-1 : 2004 replaced by EN 60079-31 : 2009

Annex 1 to Certificate of Conformity IECEx KEM 07.0047U, issue 1

Nomenclature and electrical data

07 - 5 8 0 1 - 2 20 5
 I II III IV V VI VII VIII

Designation	Explanation	Value	Explanation
I, II, III, IV	General	07-580	Parallel circuit heating cable for use in potentially explosive atmospheres
V	Cable Series Designation	1 7	Self limiting PSB Self limiting PSBL
VI	Rated voltage	1 2	110 Vac to 120 Vac 208 Vac to 254 Vac
VII	Power output rating at 10 °C	PSB	10 13 15 20 25 33 10 W/m 13 W/m 15 W/m 20 W/m 25 W/m 33 W/m
		PSBL	10 15 20 25 30 10 W/m 15 W/m 20 W/m 25 W/m 30 W/m, 208 to 254 Vac only
VIII	Overjacket options	PSB	5 6 Fluoropolymer overjacket Polyolefin overjacket
		PSBL	8 9 Fluoropolymer overjacket Polyolefin overjacket

Temperature class and specified maximum surface temperature "T"

The maximum surface temperature "T" is based upon exposure of a heating cable to a workpiece having a temperature not exceeding the maximum surface temperature "T".

Cable series	Rated voltage	Power output rating	T-class determined by Product classification approach	Maximum surface temperature "T"
PSB	254 Vac	10, 13, 15 W/m	T6	+80 °C
		20, 25, 33 W/m	T5	+95 °C
	120 Vac	10, 13, 15, 20, 25, 33 W/m	T5	+95 °C
PSBL	254 Vac	10, 15, 20, 25, 30 W/m	T5	+95 °C
		10, 15, 20, 25 W/m	T5	+95 °C