



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 13.0121X** issue No.:0 Certificate history: _____

Status: **Current**

Date of Issue: **2014-04-03** Page 1 of 4

Applicant: **Bartec - Varnost d.o.o.**
Cesta 9. avgusta 59
1410 Zagorje ob Savi
Slovenia

Electrical Apparatus: **Flameproof electric motors type 4 KT** *** ** */***
Optional accessory:

Type of Protection: **Equipment protection by flameproof enclosures "d"; Equipment dust ignition protection by enclosure "t"; Equipment protection by increased safety "e"**

Marking: **Ex d IIC T* Gb resp. Ex de IIC T* Gb or
Ex d IIB T* Gb resp. Ex de IIB T* Gb or
Ex tb IIIC T°C Db**

Approved for issue on behalf of the IECEx Certification Body: **H.-Ch. Simanski**

Position: **Head of Certification Body**

Signature:
(for printed version)

Date:

3.4.2014

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 - Varnost d.o.o.**
Cesta 9. avgusta 59
1410 Zagorje ob Savi
Slovenia

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 : 2011 Edition: 6.0 | Explosive atmospheres - Part 0: General requirements |
| IEC 60079-1 : 2007-04 Edition: 6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| 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/ExTR14.0033/00](#)

Quality Assessment Report:

[SI/SIQ/QAR11.0003/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Subject and type

Flameproof electric motors type 4 KT** *** ** */*

Type designation to 4 KT*(1)*(2) *(3)*(3)*(3) *(4)*(4) *(5)/(5)

1: Gas group

- B: Flameproof enclosure for group IIB
- C: Flameproof enclosure for group IIC

2): D: Applicable in the presence of combustible dust

3): Frame size

- 71 71 mm
- 80 80 mm
- 90 90 mm
- 100 100 mm
- 112 112 mm
- 132 132 mm
- 160 160 mm
- 180 180 mm
- 200 200 mm
- 225 225 mm

4): Length of stator assembly

5): Quantity of poles

To be continued on page 4

CONDITIONS OF CERTIFICATION: YES as shown below:

The lengths of the flameproof joints are in parts longer and the gaps of the flameproof joints are in parts smaller than the values of table 2 of IEC 60079-1:2007. For information of the dimensions of the flameproof joints contact the manufacturer.

Fasteners with a minimum yield stress of 640 N/mm² must be used for the closing of the flameproof enclosure.

Motors which have to be equipped with a direct temperature control must be monitored by a separate certified trigger unit.

If the electrical machine will be cooled by forced ventilation, it has to be assured that the electrical machine can only run if the ventilation is running.



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EQUIPMENT(continued):

Description

The enclosure of the flameproof electric motor is made of cast iron and has a mounting place for terminal boxes.

The shaft will be fixed with ball bearings.

The shaft sealing of the flameproof electric motor is realised by non-metallic sealing rings made of viton for use in areas requiring EPL Db.

A terminal compartment in type of protection Flameproof enclosure "d", Increased safety "e" or Protection by enclosure "tb" or a direct cable entry is used for electrical connection of the motor. For electric power input into the motor compartment, separately certified cable glands or conductor bushings are used.

The cooling of the motor is realised by an external fan that is made of steel, aluminium or plastic. The fan can be driven by the electrical machine itself or by a separately certified forced ventilation motor.

Optionally a space heater can be mounted inside the stator housing.

For direct temperature monitoring the winding of the motor is equipped with temperature sensors (thermistors according DIN 44081 respectively DIN 44082). The sensors are connected in series.

Optionally the temperature at the bearings could be monitored separately certified resistance thermometers (Pt100).

The sensors respectively the thermometers will be connected to a trigger unit which is certified for this purpose.

The maximum permissible ambient temperatures are -30 °C to 85 °C. This temperature range may be limited as a result of the selected terminal boxes and components, or the electrical design.

Parameters

See Annex