



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 14.0033X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2014-05-26** Page 1 of 4

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

Electrical Apparatus: **Brake Motors type BM 4KT * ** / ****
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 T4-T6 Gb or Ex d IIB T4-T6 Gb or
Ex de IIC T4-T6 Gb or Ex de IIB T4-T6 Gb resp.
Ex tb IIIC T85°C - T135°C Db

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

Position: Head of Certification Body

Signature:
(for printed version)


26.5.2014

Date:

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/ExTR14.0048/00](#)

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

Brake motor type BM 4KT* ***/**

Type designation to BM¹⁾ 4KT²⁾*³⁾ ***4)**⁵⁾

1): Explosion group

2): Motor generation

3): Explosion group

B: Flameproof enclosure for Group IIB

C: Flameproof enclosure for group IIC

D: Applicable in the presence of combustible dust

4): Frame size of motor

71	71 mm
80	80 mm
90	90 mm
100	100 mm
112	112 mm
132	132 mm

5): Frame size of the brake

08	71 mm
10	80 mm
13	90 mm
15	100 mm
17	112 mm
20	132 mm

Description

The brake motors are an assembly of motors type 4 KT** ***/** (IECEx BVS 13.0121 X) and the spring loaded brakes type 4BM ***/** (IECEx BVS 14.0003 U).

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 1 and 2 of IEC 60079-1:2007. For information of the dimensions of the flameproof joints contact the manufacturer.

Parts that have to meet the requirements of Flameproof Enclosure have to be fastened by means of steel screws of strength category 8.8 minimum.



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EQUIPMENT(continued):

Parameters

Brake motor

Rated voltage		up to	690	V AC
Rated rotational speed	500	up to	3600	min ⁻¹
Rated rotational speed (with converter)	48	up to	6000	min ⁻¹
Frequency (mains)			50 / 60	Hz
Frequency (converter)	5	up to	100	Hz
Duty type	S1	up to	S9	
Rated power				
Frame size		50 Hz	60 Hz	
71	up to	0.55 kW	0.66 kW	
80	up to	1.1 kW	1.3 kW	
90	up to	2.2 kW	2.6 kW	
100	up to	3 kW	3.6 kW	
112	up to	4 kW	4.8 kW	
132	up to	7.5 kW	9 kW	

Brake

Rated voltage 24 VDC, 48 VDC, 180 VDC and 205 VDC

Size of the brake	4BM 71/08	4BM 80/10	4BM 90/13	4BM 100/15	4BM 112/17	4BM 132/20
Power in Watt(at 20 °C)	22	28	34	42	50	76

Monitoring circuit

Temperature sensors (ptc thermistors)

According to the specifications given in the certificate of the trigger unit and the electrical design

Circuits of the resistance thermometer (Pt100)

According to the specifications given in the certificate of the trigger unit and the electrical design

Thermal ratings

Type of protection	Explosion group	Lower limit of ambient temperature	Upper limit of ambient temperature
Ex d	IIC	-50 °C	60 °C
Ex d	IIB	-50 °C	85 °C
Ex de	IIB / IIC	-20 °C	60 °C
Ex tb	IIIC	-30 °C	85 °C

Ambient temperature range, temperature class and surface temperature

The electrical data, the temperature class, the surface temperature and the ambient temperature range of the respective version is determined by a routine test carried out by the manufacturer.