



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 EPS 14.0042 Issue No: 0 Certificate history:
Issue No. 0 (2014-07-02)

Status: Current Page 1 of 3

Date of Issue: 2014-07-02

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

Electrical Apparatus: Miniature/ Control and Display Unit type 07-61**-****/**** and type 07-662*-
****/****

Optional accessory:

Type of Protection: by flameproof enclosures, increased safety, by enclosure "t", intrinsic safety

Marking:
Ex d e [ib] IIC T6, T5 or T4 Gb
Ex d e [ia Ga] IIC T6, T5 or T4 Gb
Ex d e IIC T6 or T5 Gb

Ex tb [ib] IIIC T80°C or T95°C Db
Ex tb [ia Da] IIIC T80°C or T95°C Db
Ex tb IIIC T80°C or T95°C Db

Approved for issue on behalf of the IECEx
Certification Body:

Dieter Zitzmann

Position:

Manager Certification

Signature:
(for printed version)

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:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





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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 : 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 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
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:

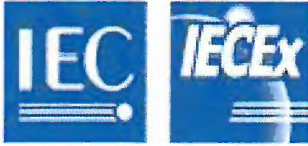
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[DE/EPS/ExTR14.0043/00](#)

Quality Assessment Report:

[DE/TUN/QAR06.0017/05](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Miniature/ Control and Display Unit is used to provide for flameproof enclosure of industrial-standard regulating resistors, switching control and display units. For more detailed descriptions, see appendix.

CONDITIONS OF CERTIFICATION: NO

Annex:

[appendix to IECEx Zertifikat IECEx 14.0042.pdf](#)



Attachment to certificate

IECEx EPS 14.0042



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

Electrical Apparatus: Miniature/ Control and Display Unit, type 07-61**_****/****
and type 07-662*_****/****

Description:

The Miniature/ Control and Display Unit type 07-61**_****/**** is used to provide for flameproof enclosure of industrial-standard switching control and display units. It consists of the flameproof housing, optionally with spindles, shafts and/or inspection window.

The Miniature/ Control and Display Unit type 07-662*_****/**** is used for flameproof enclosure of industrial-standard regulating resistors. It consists of the flameproof housing with actuating spindle.

Connection is by means of a terminal box of Increased Safety type of protection, or by means of an integrated connecting cable (open-ended line).

Electrical data:

Rated insulating voltage

type 07-61*2_****/****: up to 1100 V

type 07-61*1_****/**** & 07-662*_****/****: up to 690 V

Rated current.....: max. 21 A

Conductor size.....: max. 2,5 mm²



Power loss for	T6	T5
Type 07-6111, min. length 55 mm	2,5W	3W
Type 07-6121, min. length 55 mm	2,5W	3W
Type 07-6121, min. length 90 mm	5W	6W
Type 07-6131, min. length 60 mm	5W	6W
Type 07-6131, min. length 90 mm	7W	8W
Type 07-6132, min. length 60 mm	5W	6W
Type 07-6132, min. length 90 mm	7W	8W
Type 07-6142, min. length 40 mm	7W	8W
Type 07-6142, min. length 140 mm	16W	18W
Type 07-6142, min. length 250 mm	23W	26W
Type 07-6152, min. length 75 mm	16W	18W
Type 07-6152, min. length 200 mm	30W	34W
Type 07-6152, min. length 370 mm	40W	45W
Type 07-6622, min. length 55 mm	2,5W	
Type 07-6623, min. length 55 mm		3W
Type 07-6624, min. length 55 mm	5W	
Type 07-6625, min. length 55 mm		6W
Type 07-6626, min. length 55 mm	7W	
Type 07-6627, min. length 55 mm		8W

Related to 40°C ambient

In case of a reduced power loss, ambient temperatures beyond 40°C are acceptable.

Rated values are maximum values, the actual electrical values are determined by mounted electrical apparatus. Within these limiting values complying with the appropriate standards the manufacturer specifies the final limiting values dependent on power supply specifications, operating mode, utilization category, etc. Any additional technical features are specified in the test documents.

The composition of the protection symbol will be based on the types of protection of the components actually used.



Type identification:

1 **Type Code**

Type No 07 - 6 1 * * - * * * * / * * * *
 Code No. A B C D E F G H I J K L M

Code	Code for	Variation	Description
A	Basic program	07	ExCo
B, C	item	61	Miniature-/Control and display unit
D	Enclosure diameter	1 2 3 4 5	1 Ø 30 mm ($V < 100 \text{ cm}^3$) 2 Ø 45 mm ($V < 100 \text{ cm}^3$) 3 Ø 60 mm ($V \leq 100 \text{ cm}^3$ oder $V = 200 \text{ cm}^3$, see Code E) 4 Ø 90 mm ($V = 1000 \text{ cm}^3$) 5 Ø 120 mm ($V = 2750 \text{ cm}^3$)
E	Volume	1 2	1 Volumen $V \leq 100 \text{ cm}^3$ 2 Volumen $100 < V \leq 2750 \text{ cm}^3$
F - I	Application		e.g. kind of built-in devices
J - M	Variation without any influence on explosion type of protection		

Type No 07 - 6 6 2 * * - * * * * / * * * *
 Code No. A B C D E F G H I J K L M

Code	Code for	Variation	Description
A	Basic program	07	ExCo
B, C, D	item	662	Ex-d-miniature enclosure with built-in potentiometer
E	Enclosure diameter	2 3 4 5 6 7	2 Ø 30 mm T6 3 Ø 30 mm T5 4 Ø 45 mm T6 5 Ø 45 mm T5 6 Ø 60 mm T6 7 Ø 60 mm T5
F - M	Variation without any influence on explosion type of protection		



Attachment to certificate

IECEx EPS 14.0033



Note for manufacturing and operation:

The connecting cable (open-end line) of the Miniature/ Control and Display Unit shall be installed to provide for permanent wiring and adequate protection against thermal and mechanical stressing.

The connection cable (open-end line) of the Miniature/ Control and Display Unit shall be connected in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0 section 1, if connection is made in the potentially explosive area.

The Miniature/ Control and Display Unit may also be connected by means of adequate cable entries or conduit systems, if they meet the requirements in IEC 60079-1, sections 13.1 and 13.2, and if they are covered by a separate examination certificate.

Any openings not used shall be closed as specified in IEC 60079-1, section 11.

Cable entries and sealing plugs of simple designs shall not be used.

The connector for the external equipotential bonding or protective conductor may be dispensed with, if the miniature control and display unit is conductively connected by means of permanently conductive system elements, to which the equipotential bonding conductor is led.

Intrinsically safe circuits shall be installed in the enclosure in such a way that the clearance and creepage distances specified in IEC 60079-11 between intrinsically safe and non-intrinsically safe circuits are complied with.

If system installation and layout does not provide for the clearance requirements for connectors as specified in IEC 60079-11, wiring that meets the quality criteria Increased Safety "e" shall be used, or the wiring shall be mechanically fail safe in accordance with IEC 60079-11.

Should these clearance requirements not be met, local wiring work may be performed only if an explosion risk can positively be excluded along all the lines.

When connecting more than one intrinsically safe circuit, the rules and regulations for interconnection shall be duly observed.