



# 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](http://www.iecex.com)

Certificate No.:	IECEx BKI 08.0004	issue No.:0	Certificate history:.....
Status:	Current		
Date of Issue:	2008-05-07	Page 1 of 3	
Applicant:	<b>Cooper Crouse-Hinds GmbH</b> previously CEAG Sicherheitstechnik GmbH Neuer Weg Nord 49 D-69412 Eberbach, Germany <b>Germany</b>		
Electrical Apparatus:	<b>Junction and terminal boxes, explosion protected control units and distributions equipment</b> <i>Optional accessory:</i> <b>ExTRA....., Ex-Cell-„I”CL....., Ex-Cell-„T”XCL..... and Ex-Cell-„C”XCL</b>		
Type of Protection:	<b>General requirements, Increased safety, Intrinsic safety, Encapsulation, Dust explosion protection</b>		
Marking:	<b>Ex e ia IIC T6, T5 for terminal boxes</b> <b>Ex dem ia/ib IIC T6, T5, T4 for installation-control units and distributions equipment</b> <b>-20 °C ≤ Tamb ≤ +40 °C with PUR sealing</b> <b>-40 °C ≤ Tamb ≤ +55 °C with polymer sealing</b> <b>-55 °C ≤ Tamb ≤ +55 °C with silicon sealing</b> <b>Ex tD A21 IP66 T80°C, T95°C, T130°C</b>		
Approved for issue on behalf of the IECEx Certification Body:	János HANKÓ		
Position:	Director		
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:

Testing Station for Explosion Proof Equipment  
H 1037 BUDAPEST  
MIKOVINY S.u. 2-4  
Hungary





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Date of Issue: **2008-05-07**

Issue No.: **0**

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Manufacturer: **Cooper Crouse-Hinds (UK) Ltd**  
 Enclosure Division  
 Dorset Road  
 Sheerness  
 Kent ME 12 1LP  
 United Kingdom  
**United Kingdom**

Manufacturing location(s):  
**Cooper Crouse-Hinds GmbH**  
 previously CEAG  
 Sicherheitstechnik GmbH  
 Neuer Weg Nord 49  
 D-69412 Eberbach, Germany  
 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 product 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 identity documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2003</b> Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
<b>IEC 60079-11 : 1999</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
<b>IEC 60079-18 : 1992</b> Edition: 1	Electrical apparatus for explosive gas atmospheres - Part 18: Encapsulation 'm'
<b>IEC 60079-7 : 2001</b> Edition: 3	Electrical apparatus for explosive gas atmospheres - Part 7: Increased safety 'e'
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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:

[HU/BKI/ExTR08.0004/00](http://HU/BKI/ExTR08.0004/00)

Quality Assessment Report:

[GB/BAS/QAR06.0048/00](http://GB/BAS/QAR06.0048/00)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The terminal boxes, type ExTRA....., Ex-Cell-„I“ XCL..... and Ex-Cell „T“ XCL..... consist of a stainless-steel enclosure. The enclosures of this type series consist of a base and stainlesssteel cover which is bolted in place. Flanges may optionally be mounted on the side walls.

See details in Addendum to IECEx BKI 08.0004.

### CONDITIONS OF CERTIFICATION: NO

**Annexe:** [Addendum to IECEx BKI 08.0004.pdf](#)



**1. Description**

The terminal boxes, type ExTRA....., Ex-Cell-„I“ XCL..... and Ex-Cell „T“ XCL..... consist of a stainless-steel enclosure. The enclosures of this type series consist of a base and stainlesssteel cover which is bolted in place. Flanges may optionally be mounted on the side walls.

Designed to type of protection Increased Safety „e“. It is used to accommodate terminals for intrinsically safe and non intrinsically safe circuits.

The box section intended for intrinsically safe circuits is marked, e.g. with a light blue colour. Connection is by means of explosion-proof cable entries. All the installed and mounted components have been and certified under separate certificates. The maximum number of terminal blocks that may be fitted is defined in companion sheets by means of a calculation program in such a way that the temperature class T6 cannot be exceeded.

The terminal boxes may also be employed in areas in which a potentially explosive atmosphere as a mixture of dust and air can occasionally form.

The terminal boxes, types ExTRA....., Ex-Cell-„I“ XCL....., and Ex-Cell-„T“ XCL....., are extended to include the control and distributor box, type Ex-Cell-„C“ XCL.....

The terminal boxes, type Ex-Cell-„I“ XCL....., which may be optionally fitted with – separately certified – control and display components, built-in switches, measuring instruments, transformers, flange-mounting socket outlets, etc., serve as a basis for this type.

**2. Type assortment**

**2.1 Junction and terminal boxes**

**2.1.1 Base version**

**Ex TRA .....**

1._, 2._, 3._, 4._, 5._	Code for manufacturer
6._, 7._, 8._, 9._, 10._, 11._, 12._, 13._	Enclosure size
	6._, 7._, 8._      Width
	9._, 10._, 11._    Length
	12._, 13._        Depth

**2.1.2 Modified version 1**

**Ex-Cell-„I“ XCL .....**

1._, 2._, 3._, 4._, 5._, 6._, 7._, 8._, 9._, 10._	Code for manufacturer
11._, 12._, 13._, 14._, 15._, 16._, 17._, 18._	Enclosure size
	11._, 12._, 13._    Width
	14._, 15._, 16._    Length
	17._, 18._        Depth

**2.1.3 Modified version 2**

**Ex-Cell-„T“ XCL .....**

1._, 2._, 3._, 4._, 5._, 6._, 7._, 8._, 9._, 10._	Code for manufacturer
11._, 12._, 13._, 14._, 15._, 16._, 17._, 18._	Enclosure size
	11._, 12._, 13._    Width
	14._, 15._, 16._    Length
	17._, 18._        Depth

**2.2 Explosion protected control units made of stainless steel**

**Ex-Cell-„C“ XCL .....**

1._, 2._, 3._, 4._, 5._, 6._, 7._, 8._, 9._, 10._	Code for manufacturer
7._	Code for control units
11._, 12._, 13._, 14._, 15._, 16._, 17._, 18._	Enclosure size
	11._, 12._, 13._    Width
	14._, 15._, 16._    Length
	17._, 18._        Depth

**3. General parameters**

**3.1 Type ExTRA ..... terminal boxes base version**

<u>Sizes</u>		Width	Length	Depth
smallest		300 mm	200 mm	150 mm
largest		1200 mm	1200 mm	300 mm

Technical data

Rated voltage* ..... up to	750 V
Rated current* ..... max.	500 A
Rated cross section* ... max.	240 mm <sup>2</sup>

\* depending on the type of terminal and explosion-proof components used

The ratings specified are maximum values, actual values will be subject to the electrical equipment used from case to case. Depending on the system conditions, the mode of operation, the utilisation category, etc., the manufacturer will define the definitive ratings which will be within the range of these limiting values and will comply with the relevant standards.

**3.2 Type Ex-Cell-,I" XCL ..... terminal boxes modified version 1**

<u>Sizes</u>		Width	Length	Depth
smallest		228 mm	152 mm	127 mm
largest		1000 mm	800 mm	300 mm

Technical data

Rated voltage* ..... up to	750 V
Rated current* ..... max.	500 A
Rated cross section* ... max.	240 mm <sup>2</sup>

\* depending on the type of terminal and Ex components used

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.

**3.3 Type Ex-Cell-,T" XCL ..... terminal boxes modified version 2**

<u>Sizes, type Ex-Cell „T" XCL .....</u>		Width	Length	Depth
smallest		150 mm	150 mm	80 mm
largest		510 mm	250 mm	160 mm

Technical data

Rated voltage* ..... up to	750 V
Rated current* ..... max.	500 A
Rated cross section* ... max.	240 mm <sup>2</sup>

\* depending on the type of terminal and Ex-type components used

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.

**3.4 Type Ex-Cell-,C" XCL ..... explosion protected control units**

<u>Sizes</u>		Width	Length	Depth
smallest		228 mm	152 mm	127 mm
largest		1000 mm	800 mm	300 mm

Technical data for type Ex-Cell-,C" XCL .....

Rated voltage* ..... up to	750 V
Rated current* ..... max.	180 A
Rated cross section* ... max.	240 mm <sup>2</sup>

\* depending on the type of terminal and explosion-proof components used

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.

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

**4. Ambient temperature subject to the sealing used**

- 20 °C ≤ Tamb ≤ +40 °C with PUR sealing
- 40 °C ≤ Tamb ≤ +55 °C with polymer CR sealing
- 55 °C ≤ Tamb ≤ +55 °C with silicon sealing

- 5. Ingress protection** **IP66** in compliance with IEC 60529 for PUR sealing  
**IP54** in compliance with IEC 60529 for silicon and polymer CR sealing

**Notes for manufacture and use**

For the maximum number of conductors for each size, which is subject to the cross section and the permissible continuous current, reference is made to the attached data sheets.

Equipment designed to type of protection Intrinsic Safety „i” shall be installed in such a way that the clearance and creepage distances that are required according to IEC 60079-14:2003 between intrinsically safe and non-intrinsically safe circuits are duly considered.

If system installation and layout does not provide for the clearance requirements for connectors as specified in IEC 60079-11:2006, wiring that meets the quality criteria Increased Safety „e” shall be used, or the wiring shall be of the fail-safe type.

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

**Drawing**

Description	No. 4255	6	2002-01-25
Data sheets		8	2002-01-25
Drawing Quarter-Turn Latch System		1	2002-01-25
Drawing No.	723823	1	2002-01-25
Drawing No.	747066	1	2002-01-25
Drawing No.	747065	1	2002-01-25
Drawing No.	747110	1	2002-01-25
Drawing No.	747109	1	2002-01-25

Test records and supporting information

Illustration of the wall mounting system

Operating instructions No.	GHG 7202002 P0001 D/EF/ 16 Page		
Test record	CEAG No. 01-MI4-C1-211202		
Test record TÜV for the adhesive properties of the marking labels			
Data sheets for the elastomer materials used			

Test Report	PTB Ex 02-12032	3	2002-03-20
1 <sup>st</sup> Supplement Descriptive documents			
Description No	4255	1	2002-04-17
Drawing No	747110	1	2002-04-17
Drawing No	747109	1	2002-04-17
Drawing No	747065	1	2002-04-17
Drawing No	723823	1	2002-04-17

Test records and supporting information

Test records No	01-MI4-C1-200102	1	2002-02-29
Test Report	PTB Ex 02-12139	2	2002-05-29
2 <sup>nd</sup> Supplement Descriptive documents			
Description		2	2004-05-17
Drawing No.	725262	1	2004-04-26
	725261	1	2004-04-26
	725258	1	2004-04-26
	GHG9026001	2	2004-04-26

Test records and supporting information

Operating instruction No	GHG 7207002 P 0001 D/E/F 16 Page		
Test Report	PTB Ex 04-14125	3	2004-06-08
3 <sup>rd</sup> Supplement Descriptive documents			
Description No	4289	5	2004-09-10
Appendix Ex-Cell-„T” XCL ... ..		10	2004-09-08
Drawing No	EXCELL-T-3-4466	1	2004-10-27
Description No	4292	1	2004-09-20
Appendix for Ex-Cell-„I” XCL.....		24	2004-09-20

Test records and supporting information

Test record Firma Cooper Crouse Hinds No 06-MI4-C1-19082004		3	2004-11-03
Test record Firma Cooper Crouse Hinds No 04-MI4-C1-19082004		3	2004-09-28
Test record Firma Cooper Crouse Hinds No 02-MI4-B1-160704		1	2004-07-16
Test Report	PTB Ex 04-14252	3	2004-12-22
4 <sup>th</sup> Supplement Descriptive documents			
Description No.	4313	6	2005-07-12
Drawing No.	GHG 66-3-3860	1	2005-07-12

Test records and supporting inform

Operating instructions	GHG Ex-Cell D 51		2005-07-21
Test record No.	01-MI4-B1 issued by Cooper Crouse-Hinds on		2005-07-12
Test Report PTB Ex 05-15223		3	2005-09-02
Test record No.	MI 0521 d issued by BKI-Cooper Crouse Hinds 6 page		2006-04-18
Test record No.	MI 0521g issued by BKI-Cooper Crouse Hinds 5 page		2006-04-18
IECEX Certificate of Conformity No.	IECEX BKI 08.0001 U	3 page	2008-05-05