

(1) **EC Design Test Certificate**

(2) **Machines and protection systems for proper use  
in explosion-hazard zones - Directive 94/9/EC**

(3) **EC Design Test Certificate Number:**

**PTB 97 ATEX 1066 U**

(4) **Machine:** Control and Adjustment Machine, Type 07-7331-.../...

(5) **Manufacturer:** BARTEC  
Componenten und Systeme GmbH

(6) **Address:** D-97980 Bad Mergentheim  
Germany

(7) **The design of this machine and the different permitted models are defined in  
the Annex to this Design Test Certificate.**

(8) **The Federal German Institute of Physical Sciences and Engineering has been  
appointed as agency no. 0102. In this capacity the Agency hereby certifies in  
accordance with Article 9 of the Directive of the Council of the European  
Community of March 23, 1994 (94/9/EC) that the machine fulfils the basic  
safety and health requirements for the design and construction of machines  
and protective systems for proper use in explosion-hazard zones, as specified  
in Annex II of the Directive.**

**The results of the test are specified in the Confidential Test Report No. Ex 97-  
17093.**

(9) **The basic safety and health requirements are met in conformity with**  
**EN 50014:1997                      EN 50018:1994                      EN 50019:1994**

(10) **If the certificate number has an "U" after it, then this indicates that this  
certificate must not be confused with a certificate for a machine or system of  
protection. This is a partial certificate and may only be used as the basis for  
the certificate of a machine or protective system.**

(11) **This EC Design Test Certificate only refers to the design and construction of  
the defined machine as specified in Directive 94/9/EC. Further requirements of  
this Directive are applicable to the manufacturing and distribution of this  
machine.**

(12) **The machine must be marked with the following details:**

**Ex II 2 G EEx de IIC IM 2 EEx de I**

**Certification Agency for Explosion Protection**  
p.p.

[signature]  
**Dr. Ing. U. Klausmeyer**  
**Senior Executive Officer**

Seal of the  
Federal German  
Institute of  
Physical  
Sciences and  
Engineering - 24

Braunschweig, November 12, 1997

(13)

## Annex

(14)

### EC Design Test Certificate PTB 97 ATEX 1066 U

(15) Description of the Machine:

The Control and Adjustment Machine Type 07-7331-.../... with pressure-proof housing serves the purpose of controlling, adjusting, switching and displaying electric circuits. You are permitted to fit control elements such as key tappets and axes as well as luminescent bars for detector and indicator displays.

These are to be connected to the integrated terminals.

The Control and Adjustment Machine is clipped onto assembly rails. A consecutive arrangement is not permitted.

Technical Specifications

Rated voltage .....	up to		
Stray power	for T6 at T <sub>a</sub> 40°C .....	max.	
	for T6 at T <sub>a</sub> 60°C .....	max.	
	for T4 at T <sub>a</sub> 40°C .....	max.	
	for T4 at T <sub>a</sub> 60°C .....	max.	
			Single      Consecutive
			15 W      10 W
			8 W      5 W
			22 W      14 W
			15 W      10 W
Rated cross section.....	max.		2.5 mm <sup>2</sup>
Number of terminals.....			2 ... 48

The Control and Adjustment Machine can be used in areas of temperature class T6 to T4. The pressure-proof housing is designed for heat resistance up to 105°C.

The rated voltage, rated current and – in the case of switchgear – the utilisation category depend on the elements that have been built in and are set by the manufacturer.

(16) Test Report No. Ex 97-17093, consisting of a description (8 pages), a drawing (1 page), an itemised list (1 page), a table with columns (1 page) and an inspection sheet (15 pages).

**Physikalisch-Technische Bundesanstalt (PTB)**  
**(Federal German Institute of Physical Sciences and Engineering)**  
**Braunschweig and Berlin**

**Annex to the EC Design Test Certificate PTB 97 ATEX 1066 U**

**(17) Special Conditions:**

The Control and Adjustment Machine must be built into a housing that complies with a valid protection class as detailed in EN 50 014, section 1.2 or 2.2.

When inserting the Control and Adjustment Machine into a housing of the protection class *Increased Safety "e"*, as detailed in EN 50 019, make sure the sparking and leakage distances are kept as stipulated in sections 4.3 and 4.4 and Table 1.

The machine can be used in Groups I and II, as the standard requirements are identical in this case.

**Routine Check Test**

No routine check test (stipulated in EN 50 018, section 16.1.1) needs to take place, as the machine has passed a prototype test with four-fold reference pressure in accordance with section 16.2.

A routine check test as stipulated in EN 50 01, section 23.4.7.1 and definitions given in the test documents must ensure compliance with the maximum permitted temperature for the relevant temperature class with due regard to the maximum ambient temperature.

**(18) Basic safety and health requirements**

Not applicable

Certification Agency for Explosion Protection  
p.p.

(signature)

Dr. Ing. U. Klausmeyer  
Senior Executive Officer

Seal of the  
Federal German  
Institute of  
Physical  
Sciences and  
Engineering - 24

Braunschweig, November 12, 1997


## 1st SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 97 ATEX 1066 U

(Translation)

Equipment: control module, type 07-7331-..../....

Marking:  II 2 G EEx de IIC I M 2 EEx de I

Manufacturer: BARTEC GmbH

Address: Max-Eyth-Straße 16,  
97980 Bad Mergentheim, Germany

The essential health and safety requirements are met by compliance with:




EN 50014:1997      EN 50018:1994      EN 50019:1994      EN 50020:2002

### Description of supplements and modifications

The control module, type 07-7331-..../.... may also be equipped with certified associated and/or intrinsically safe apparatus and/or simple apparatus according to the specifications listed in the description under point 3a of the test report.

The „Electrical data“ are specified in the respective EC-type-examination certificates.

The marking changes as follows and has to be adapted to the respective equipment installed:

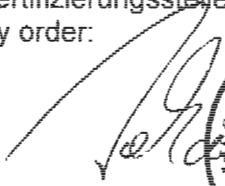
 II 2 (1) G	EEx d e [ia] IIC resp. IIB
 II 2 G	EEx d e [ib] IIC resp. IIB
 I M 2	EEx d e [ia resp. ib] I

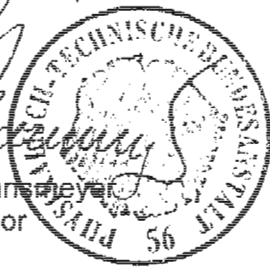
All other data remain unchanged.

Test report: PTB Ex 04-21195

Zertifizierungsstelle Explosionsschutz  
By order:

Braunschweig, January 26, 2004

  
Dr.-Ing. U. Johann  
Regierungsdirektor






## 2. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 97 ATEX 1066 U

(Translation)

Equipment: Control Module Type 07-7331-..../....

Marking:  II 2 (1) G      EEx d e [ia] IIC resp. IIB  
 II 2 G      EEx d e [ib] IIC resp. IIB  
 I M 2      EEx d e [ia resp. ib] I

Manufacturer: BARTEC GmbH

Address: Max-Eyth-Straße 16  
97980 Bad Mergentheim, Germany

### Description of supplements and modifications

1. The minimal ambient temperature in the future will be -40 °C.
2. According to the technical documentation, the use of alternative plastics materials is possible. A change of the type designation of the enclosure material Ultramid KR4455 in Ultramid B3UGM2010 resp. Badamid LB70GF/M60 FR HF is effected.
3. The installation of a lithium cell type CR 2032, 3V, 190 mAh is possible. A charging of the cell during use is not permitted.
4. The enclosure is completely filled with glass beads  $\varnothing$  0.75 mm or an analogical filling material. The remaining free volume consists only of the own volumes of the parts on the circuit boards and is less than 10 cm<sup>3</sup>.

All other data remain unchanged.

### Applied standards

EN 60079-0:2009    EN 60079-1:2007    EN 60079-7:2007    EN 60079-11:2007

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

## 2. SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 97 ATEX 1066 U

Due to the use of the above-mentioned standards, the marking changes as follows:

 II 2 (1) G    Ex d e [ia Ga] IIC Gb resp. IIB Gb

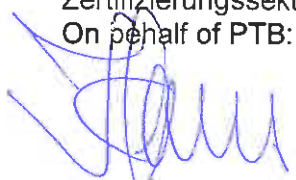
 II 2 G        Ex d e [ib] IIC Gb resp. IIB Gb

 I M2         Ex d e [ia Ma resp. ib] I Mb

Assessment and test report: PTB Ex 11-11271

Zertifizierungssektor Explosionsschutz  
On behalf of PTB:

Braunschweig, October 21, 2011



Dr.-Ing. U. Klausmeyer  
Direktor und Professor






## 3 SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 97 ATEX 1066 U

(Translation)

Equipment: Controll Module type 07-7331-\*\*\*\*/\*\*\*\*

Marking:  II 2 (1) G Ex db e [ia Ga] IIC bzw. IIB Gb  
 II 2 G Ex db e [ib] IIC bzw. IIB Gb  
 I M 2 Ex db e [ia Ma bzw. ib] I Mb

Manufacturer: BARTEC GmbH

Address: Max-Eyth-Straße 16, 97980 Bad Mergentheim, Germany

### Description of supplements and modifications

*The Control Module Typ 07-7331-\*\*\*\*/\*\*\*\* was verified with respect to the state of the art of the standards.*

*The withstand temperature is limited to 100 °C.*

*The enclosure is only completely filled with glass beads  $\varnothing$  0.75 mm.*

*All other data remain unchanged.*

### Applied standards

**EN 60079-0:2012, EN 60079-1:2014, EN 60079-7:2007, EN 60079-11:2012**

Test report: PTB Ex 14-34254

Konformitätsbewertungsstelle, Sektor Explosionsschutz

Braunschweig, December 11, 2014

On behalf of PTB:

Dr.-Ing. U. Klausmeyer  
Direktor und Professor



Sheet 1/1

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.