



(1) EC-TYPE-EXAMINATION CERTIFICATE (Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 99 ATEX 2115



(4) Equipment: Second telephone alarm and signal unit TWIN-EEXII type 5842/1

(5) Manufacturer: Funke+Huster Fernsig Fernsprech-und Signalbau GmbH & Co.KG

(6) Address: D-42551 Velbert

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential report PTB Ex 99-29119.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997

EN 50019:1994

EN 50020:1994

EN 50028:1987

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

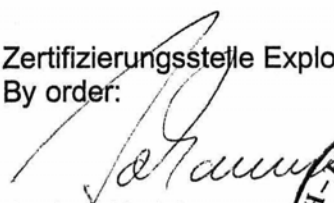
(12) The marking of the equipment shall include the following:



II 2 G EEx [ib] em IIC T6

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, July 16, 1999


Dr.-Ing. U. Johannsmeyer
Regierungsdirektor



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SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 2115**

(15) Description of equipment

The second telephone alarm and signal unit TWIN-EEExII type 5842/1 is particularly constructed for the application in explosion hazardous industrial areas and permits the operation inside of buildings or in open air environments. The TWIN-EEExII can be switched to the operating modes telephone alarm and optical alarm signal by a slide switch inside the apparatus.

Electrical data

Terminals (N-mains and L1-mains)	mains supply	230 V/50 Hz +10%/-15%
	fuse to be connected in series	500 mA
resp.	mains supply	120 V/50 Hz +10%/-10%
	fuse to be connected in series	800 mA
Telephone terminal connection (terminals W and Lb)	calling alternating voltage	$U \leq 165 \text{ V}$
	supplying direct voltage	$U \leq 60 \text{ V}$

The terminals W and Lb may only be connected to a telephone for operation with master and slave stations or directly to the telephone network. The short-circuit protection is carried out in the mentioned stations. The limitation must correspond to the max. rated current (permissible $3 \times I_N$).

Internal intrinsically safe circuits of category "ib" on the master board

speaker terminal
signal terminal
slide switch S1

Internal non-intrinsically safe circuit

flash board

(16) Test report PTB Ex 99-29119

(17) Special conditions for safe use

not applicable

(18) Essential health and safety requirements

met by the standards mentioned above

Zertifizierungsstelle Explosionschutz
By order:

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor



Braunschweig, July 16, 1999

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1. SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 2115

(Translation)

Equipment: Second telephone alarm and signal unit TWIN-EEXII, type 5842/1

Marking:  EEx [ib] em IIC T6

Manufacturer: Funke + Huster Fernsig GmbH

Address: Gewerbeallee 15-19, 45478 Mülheim an der Ruhr, Germany

Description of supplements and modifications

The mother board of the second telephone alarm and signal unit TWIN-EEXII, type 5842/1 may be potted with another type of casting compound to form an encapsulated module. In this case the 2-component epoxy casting compound, type Rhenatech EP 5470 FR with the appropriate hardener, type EP 5710 is used.

All further specifications of the EC-type examination certificate apply without changes.

Applied standards

EN 50014:1997 + A1 + A2

EN 50019:2000

EN 50020:1994

EN 50028:1987

Test report: PTB Ex 05-25320

Zertifizierungsstelle Explosionsschutz

By order:


Dr.-Ing. U. Johannsmeyer
Direktor und Professor



Braunschweig, December 8, 2005

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2. SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 2115

(Translation)

Equipment: Second telephone alarm and signal unit TWIN-EEXII, type 5842/1

Marking:  **EEx [ib] em IIC T6**


Manufacturer: FHF Funke + Huster Fernsig GmbH

Address: Gewerbeallee 15-19, 45478 Mülheim an der Ruhr, Germany

Description of supplements and modifications

The type labels may alternatively be made of the materials Polymatic 25 and Polymatic 50 manufactured by the company Wölco AG.

In the future the equipment shall be marked as follows:

 **II 2 G Ex mb e [ib] IIC T6**

The requirements of the standards listed below are complied with by this supplement.

The "Special Conditions" of the EC-type examination certificate apply also to this supplement.

Applied standards

EN 60079-0:2006

EN 60079-7:2007

EN 60079-11:2007

EN 60079-18:2004

Test report: PTB Ex 08-27171

Zertifizierungsstelle Explosionschutz
By order:

Braunschweig, March 11, 2008


Dr.-Ing. U. Gerlach
Oberregierungsrat



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3. SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 2115

(Translation)

Equipment: Secondary telephone alarm and signal unit TWIN-EEXII, type 5842/1

Marking:  II 2 G Ex mb e [ib] IIC T6

Manufacturer: FHF Funke + Huster Fernsig GmbH

Address: Gewerbeallee 15-19, 45478 Mülheim a.d. Ruhr, Germany

Description of supplements and modifications

A new casting compound is applied to the potting form containing the p.c.b. with the electronic-flash lamps. The ambient temperature range is extended to + 60 °C.

In the future the equipment shall be marked corresponding to the ambient temperature range as follows.

for $-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$	 II 2 G Ex e mb [ib] IIC T6 Gb
for $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$	 II 2 G Ex e mb [ib] IIC T5 Gb
for $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$	 II 2 G Ex e mb [ib] IIC T4 Gb

When the equipment is used at ambient temperatures $> 40^{\circ}\text{C}$ it is only suitable for a lower grade of mechanical stress.

Applied standards

EN 60079-0:2009, EN 60079-7:2007, EN 60079-11:2007, EN 60079-18:2009

Test report: PTB Ex 12-21102

Zertifizierungssektor Explosionsschutz
On behalf of PTB:

Braunschweig, March 29, 2012


Dr.-Ing. U. Johannsmeier
Direktor und Professor



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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.