



## (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 00 ATEX 1002**

(4) Equipment: Power distribution, switchgear and controlgear assembly type Polyester-KE 06.. . . . and Polyester-KE 16 .. . . .

(5) Manufacturer: ROSE Elektrotechnik GmbH + Co. KG

(6) Address: D-32457 Porta Westfalica

(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 99-19274.

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

**EN 50014:1997**

**EN 50018:1994**

**EN 50019:1994**

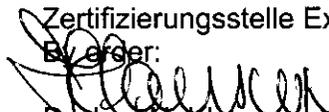
**EN 50020:1994**

(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 e II T6 resp. EEx ed IIC T6 resp.  
EEx e [ia] IIC T6 resp. EEx ia IIC T6**

Zertifizierungsstelle Explosionsschutz  
By order:  
  
Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



Braunschweig, March 22, 2000

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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.

(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1002

(15) Description of equipment

The power distribution, switchgear and controlgear assembly of type Polyester-KE 06 ... .. and Polyester-KE 16 ... .. consists of – separately certified – terminal housings of glass fibre reinforced polyester resin of the Increased Safety "e" type of protection which are provided for stationary assembly.

They are optionally used as terminal housings for circuits of the Increased Safety "e" type of protection or of the Intrinsic Safety "i" type of protection or combinations of intrinsically safe and non-intrinsically safe circuits in the types of protection Increased Safety "e" and Intrinsic Safety "i".

In the Increased Safety "e" type of protection, the terminal housings can also be equipped with – separately certified – control and signaling units and fuses in the Flameproof Enclosure "d" type of protection.

The connection is from outside via separately certified cable and conduit entries. The housing area for intrinsically safe circuits is marked, e.g. in light blue. The maximum permissible ambient temperature range of the terminal housing can be limited by the maximum permissible ambient temperature ranges of the separately certified equipment.

#### Technical data

Rated voltage:\* ..... up to 690 V  
Rated current:\* ..... max. 400 A  
Rated wire range:\* ..... max. 240 mm<sup>2</sup>  
Protective conductor section:\* ..... max. 120 mm<sup>2</sup>

\*) according to terminal type and ex-components used

Ambient temperature range    -20 °C up to +80 °C with CR, NBR and PU Fermapor seal  
   -55 °C up to +100 °C with silicon and HF seal

The rated values are maximum values, the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. Further technical details have been specified in the test documents.

The composition of the symbol specifying the type of protection depends on the types of protection of the components used.

(16) Test report PTB Ex 99-19274

(17) Special conditions for safe use

none;

### Hints for installation and operation

The maximum number of conductors for the housing size in dependence on the section and the permissible continuous current rating are to be taken from the specifications.

If the distances required according to EN 50020 for connection facilities are not ensured by the installation, cables of increased safety "e" quality of fail-safe cables are to be used.

When more than one intrinsically safe circuit is used, the rules for interconnection are to be observed.

(18) Essential health and safety requirements

The tests carried out and their results show that the power distribution, switchgear and controlgear assembly of type Polyester-KE 06 .. .. and Polyester-KE 16 .. .. meets the requirements of Directive 94/9/EC and of the standards given on the cover sheet.

Zertifizierungsstelle Explosionsschutz

Braunschweig, March 22, 2000

By order:

Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



## 1st SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1002

(Translation)

Equipment: Power distribution, switchgear and control assembly  
type Polyester-KE 06 ... .. and Polyester-KE 16 ... ..

Marking:  II 2 G EEx e II T6 or EEx ed IIC T6 or EEx e [ia] IIC T6  
or EEx ia IIC T6

Manufacturer: ROSE Systemtechnik GmbH + Co. KG

Address: Erbeweg 13 - 15  
32457 Porta Westfalica, Germany

### Description of supplements and modifications

The energy distribution, switchgear and control assembly of type Polyester-KE 06 .. .. and Polyester-KE 16 .. .. may also be housed in the flange-mounted polyester housing of type Polyester-KE 26 14 .. ..

### Instructions for installation and use

The instructions for installation and use apply as before.

Test report: PTB Ex 01-11136

Zertifizierungsstelle Explosionsschutz

Braunschweig, 26. Juni 2001

By order:



Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



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## 2nd SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1002

(Translation)

Equipment: Power distribution, switch and control gear assembly  
types Polyester-KE 06 . . . . . and Polyester-KE 16 . . . . .

Marking:  **II 2 G EEx e II T6 or EEx ed IIC T6 or EEx e [ia] IIC T6  
or EEx ia IIC T6**

Manufacturer: ROSE Systemtechnik GmbH + Co. KG

Address: Erbeweg 13, 32457 Porta Westfalica, Germany

### Description of supplements and modifications

Standards applied: EN 50014:1997 + A1 + A2, EN 50018:1994, EN 50019:1994,  
EN 50020:1994, EN 50028:1987, EN 50281-1-1:1998

The power distribution, switch and control gear assembly, types Polyester-KE 06 . . . . . and Polyester-KE 16 . . . . ., may also be employed in areas in which explosive atmospheres with dust/air mixtures have to be expected to occur.

It may accommodate – separately certified – control and signalling devices and fuses designed to Flameproof Enclosure "d" and Encapsulation "m" type of protection.

The empty enclosure specified in the first supplement for PTB 01 ATEX 1061 U may be used.

The temperature class is expanded to additionally include class T5. Due consideration shall, however, be given to the maximum permissible ambient temperature of the separately certified operators.

The voltage rating is raised to 1500 V.

The marking is changed to read:

 **II 2 G/D EEx edm ia [ia] IIC T6 or T5 IP 66 T 85 °C or T 100 °C**

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

### Technical data

Rated voltage\* ..... up to 1500 V  
Rated current\* ..... max. 400 A  
Conductor size\* ..... max. 240 mm<sup>2</sup>  
Cross section of protective conductor \*.. max. 120 mm<sup>2</sup>

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

Shock protection, protection against solid bodies,  
and protection against ingress of water ..... IP66 acc. to EN 60529:1991 as a minimum

Ambient temperatures:

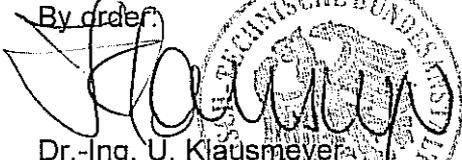
- -55 °C to +55 °C, depending on sealing used
- -20 °C to +55 °C, with glass or polycarbonate window

Test report: PTB Ex 03-13296

Zertifizierungsstelle Explosionsschutz

Braunschweig, September 23, 2003

By order:

  
Dr.-Ing. U. Klausmeyer  
Regierungsdirektor

## 3rd SUPPLEMENT

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

### to EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1002

(Translation)

Equipment: Power distribution, switch and control gear assembly  
type Polyester-KE 06 . . . . . and Polyester-KE 16 . . . . .

Marking: II 2 G/D EEx edm ia [ia] IIC T6 or T5 IP 66 T 85 °C or T 100 °C

Manufacturer: ROSE Systemtechnik GmbH + Co. KG

Address: Erbeweg 13-15, D-32457 Porta Westfalica, Germany

#### Description of supplements and modifications

Empty enclosures, types Polyester-KE 26.122000 to 26.203000 (Minipolyglass EX enclosure) and type Polyester-KE 26.304000 to 26.406000 (Polyglass EX enclosure) may be used for the power distribution, switch and control gear assembly, types Polyester-KE 06 . . . . . and Polyester-KE 16 . . . . . (2<sup>nd</sup> supplement for 01 ATEX 1061 U).

The current rating is increased to 500 A.

#### Technical data

Rated voltage:* .....	up to	1500 V
Rated current:* .....	max.	500 A
Conductor size:* .....	max.	240 mm <sup>2</sup>
Protective conductor size:* .....	max.	120 mm <sup>2</sup>

\*) depending on type of terminal and EX components used

Protection against contact, foreign bodies and water: IP 66 in accordance with EN 60529:1991

Ambient temperatures:

- 55 °C to + 55 °C depending on gasket used
- 20 °C to + 55 °C with glass or polycarbonate pane

Test report: PTB Ex Ex 03-13437

Braunschweig, January 09, 2004

Zertifizierungsstelle Explosionsschutz  
By order:

Dr.-Ing. U. Klausmeyer  
Regierungsdirektor

