

<The national coat of arms of the Russian Federation>

**FEDERAL SERVICE  
FOR ECOLOGICAL, TECHNOLOGICAL AND ATOMIC ENERGY CONTROL**

**LICENCE**

No. PPC 00-17975

for the use of

an equipment (technical device, material):

control and distribution boxes of the types AL-KE 05; 15; 25;

polyester-KE 06, 16, 26; ..KE 34, 35, 36 with an 'explosion-proof' marking

2ExeIIT6, 2ExedIICT6, 2Exe[ia]IICT6, 0ExiaIICT6 or 2Exedmia[ia]IICT6(T5)

and a 'fireproof' marking as a protection against burning dust DIP A22 T<sub>A</sub>85/100°C IP 66.

Code number ОКП (ТН ВЭД) [product nomenclature for the whole area of Russia (merchandise nomenclature for external activities)]: 34 3439 (8536 90 100 0)

Manufacturer (supplier): Messrs. „ROSE“ Systemtechnik GmbH & Co. KG“  
(Germany)

Basis for granting the licence: Conformity certificate of НАННО „ЦСВЭ“ [non-commercial autonomous scientific research institute „Centre for the certification of implosion-proof and electric mine equipment“]

No. РОСС DE.ГБ05.В01262 of 25/05/2005

Conditions for use:

1. The supplied boxes will correspond to the statutory provisions, national standards, standards, rules, guidelines, and instructions that are valid for the fields of industrial safety.
2. Use of the supplied distribution boxes in dangerous production facilities according to the assembly instructions and the concise data sheet.
3. Design changes of the technical devices will only be possible upon agreement with the federal service for ecological, technological and atomic energy control.

Validity period of the licence up to 26/09/2008

Date of issue 26/09/2005

Acting deputy of the director

*signature*

A.B. Malyschew

Seal: <Federal service for ecological, technological and atomic energy control>

002619

CERTIFICATION SYSTEM ГОСТ Р [GOST R]

NATIONAL STANDARD „GOSSTANDART OF RUSSIA“

*imprinting:*  
<PCT>

CONFORMITY CERTIFICATE

NO. РОСС DE.ГБ05.В01262

Validity period from 25/05/2005 to 25/05/2005

6660902

CERTIFYING ENTITY: РОСС RU.0001.11ГБ05  
Non-commercial autonomous scientific research institute „Centre for the certification of  
implosion-proof and electric mine equipment“.  
109377 Moscow, P.O. Box 22, НАНАО „ЦСВЭ“  
Tel.: 557-82-44

THE PRODUCTS

Control and distribution boxes of the types AL-KE 05; 15; 25;  
polyester-KE 06, 16, 26; ..-KE 34, 35, 36  
with an „explosion-proof“ marking 2ExeIIТ6 or 2ExedIICT6 or  
2Exe[ia]IICT6 or 0ExiaIICT6 or 2Exedmia[ia]IICT6(T5) and  
DIP A22 T<sub>A</sub>85/100°C IP 66. Series production.

Code number OK 005 (OKII):

[product nomenclature of the whole area of Russia] **34 3439**

CORRESPOND TO THE REQUIREMENTS OF THE NORMATIVE DOCUMENTS

GOST R 51330.0-99 (MEK 60079-0-98); [ГОСТ Р 51330.0-99 (МЭК 60079-0-98)]  
GOST R 51330.1-99 (MEK 60079-1-98); [ГОСТ Р 51330.1-99 (МЭК 60079-1-98)]  
GOST R 51330.8-99; [ГОСТ Р 51330.8-99]]  
GOST R 51330.10-99 (MEK 60079-11-99); [ГОСТ Р 51330.10-99 (МЭК 60079-11-99)]  
GOST R 51330.17-99 (MEK 60079-18-92); [ГОСТ Р 51330.17-99 (МЭК 60079-18-92)]

Code no. ТН ВЭД of Russia

[Merchandise nomenclature for external activities] **85 36 90 100 0**

MANUFACTURER:

Messrs. „ROSE“ Systemtechnik GmbH & Co. KG“  
Erbeweg 13-15, D-32457 Porta Westfalica, Germany

THIS CERTIFICATE HAS BEEN ISSUED FOR

Messrs. „ROSE“ Systemtechnik GmbH & Co. KG“  
Erbeweg 13-15, D-32457 Porta Westfalica, Germany  
Telephone: +49 571-5041-0, Fax: +49 571-5041-159

BASED ON

inspection certificate no. 198.2005-И of 24/05/2005 ИЛ ЦСВЕ  
(registration number РОСС RU.0001.21ГБ04);  
record no. 455a-III with the results of the analysis carried out at the operating site where the  
products were to be certified 20.04.2005 ЦСВЕ (register number РОСС RU.0001.11ГБ05);

ADDITIONAL INFORMATION

certification scheme – 3a

This certificate will be valid together with the enclosures indicated on 3.

Director of the entity	signature	A.S. Salogin
Inspector	signature	S.V. Serow

Seal<Non-commercial autonomous scientific research institute „Centre for the certification of implosion-proof and electric mine equipment...>

This certificate will be legally binding in the whole area of the Russian Federation.

**CERTIFICATION SYSTEM FOR EXPLOSION-PROOF EQUIPMENT  
CERTIFICATION SYSTEM GOST R [ГОСТ Р  
NATIONAL STANDARD «GOSSTANDART OF RUSSIA»**

Emblem: <ЦБЭ>

**NON-COMMERCIAL AUTONOMOUS SCIENTIFIC RESEARCH INSTITUTE  
„CENTRE FOR THE CERTIFICATION OF IMPLOSION-PROOF AND ELECTRIC MINE  
EQUIPMENT  
РОСС RU.0001.11ГБ05  
109377 Moscow, P.O. Box 22, НАННО „ЦБЭ“ Tel.: 557-82-44**

**ENCLOSURE  
TO CERTIFICATE NO. РОСС DE.ГБ05.B01262**

Issued acc. to item. 7.10.1. of the „Certification rules regarding electric equipment for implosive media“

**1. Purpose and field of application**

The control and distribution boxes of the types Al-KE 05; 15; 25; polyester-KE 06, 16, 26; ..-KE 34, 35, 36 (hereinafter referred to as boxes) are suitable for the connection, commutation and control of electrotechnic devices.

Field of application – implosive areas in buildings and outdoor facilities acc. to GOST R [ГОСТ Р] 51330.13-99 (MEK [МЭК] 60079-14-96), chapter 7.3 of the regulations regarding the installation of electrical plants [ПВЭ] and other normative documents that rule the use of electric equipment in explosive areas and other areas that are deemed to be jeopardizes in the case of the inflammation of burning dust acc. to GOST R [ГОСТ Р] MEK [МЭК] 61241-3-99.

**2. Basic technical data of boxes**

Table 1

Protection class regarding injuries caused by electric current acc. to GOST [ГОСТ] 12.2.007.0-75	I
Spectrum of temperatures in the environment in the case of operation, ° C normal type special type	-20° ... +100 -55° ... +100
protection type against outside effects	IP 66
max. voltage, V	1500
max. current, A	500
max. diameter of leads of the cables to be connected, mm <sup>2</sup> :	240

**3. Description of the design and the explosion-proof media of the control and distribution boxes regarding the types Al-KE 05; 15; 25; polyester-KE 06, 16, 26; ..-KE 34, 35, 36.**

### 3.1. Design description

**The boxes** consist of a rectangular metal or plastic casing with cover, inside you can – depending on the design – install terminal strips, switches, fuses, or distributing bars. A sealing between the casing and lid ensures the required protection against outside influences. Cable

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Director of the entity	gez.	signature	A.S. Salogin
Inspector		signature	S.V. Serov

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**CERTIFICATION SYSTEM FOR EXPLOSION-PROOF EQUIPMENT  
CERTIFICATION SYSTEM GOST R [ГОСТ Р  
NATIONAL STANDARD «GOSSTANDART OF RUSSIA»**

Enclosure to conformity certificate no. ПОСС DE.ГБ05.В01262

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inlets have been provided on the fronts of the casing.

In the operating instructions you will find a detailed design description of the boxes.

**3.2. Guarantee for explosion-proofness and fire-proofness in the case of burning dust**

The boxes have been designed in an explosion-proof manner with the following degrees of protection:

„Pressure-resistant through encapsulation“ acc. to GOST R [ГОСТ Р] 51330.1-99 (MEK [МЭК] 60079-1-98), protection type „e“ acc. to GOST R [ГОСТ Р] 51330.8-99, „Hermetic sealing through compound[mass] (m)“ acc. to GOST R [ГОСТ Р] 51330.17-99 (MEK [МЭК] 60079-18-92) „spark-proof electric circuit i“ acc. to GOST R [ГОСТ Р] 51330.10-99 (MEK [МЭК] 60079-11-99) with the observance of the requirements acc. to GOST R [ГОСТ Р] 51330.0-99 (MEK [МЭК] 60079-0-98 and GOST R [ГОСТ Р] MEK [МЭК] 61241-1-1-99

**The implosion-proofness and fire-proofness of the boxes in the case of burning dust will be reached through:**

- 1) Inclusion of the spark-emitting contacts in a pressure-resistant capsule acc. to GOST R [ГОСТ Р] 51330.0-99 (MEK [МЭК] 60079-0-98), which is suitable for resisting to an implosion pressure and excludes the transmission of the explosion to the explosive environment;
- 2) use of terminal strips when spark-proof electric circuits of class ia are to be connected; electric gaps of which the leakage ways and design correspond to the requirements of GOST R [ГОСТ Р] 51330.10-99 (MEK [МЭК] 60079-11-99);
- 3) limitation of heating temperature of the conducting box parts (not to exceed 95°C) as this corresponds to the requirements of GOST R [ГОСТ Р] 51330.0-99 (MEK [МЭК] 60079-0-98);
- 4) high mechanic solidity of the boxes acc. to GOST R [ГОСТ Р] 51330.0-99 (MEK [МЭК] 60079-0-98);
- 5) guarantee for the required electric gaps and leakage ways between the conducting parts acc. to GOST R [ГОСТ Р] 51330.8-99;
- 6) use of electro-insulating materials acc. to GOST R [ГОСТ Р] 51330.8-99;
- 7) use of device to ensure gap implosion-proofness at the joints of the parts and the components of the pressure-resistant capsule of the built-in switches. The joints have been marked and the admissible implosion-proofness parameters have been indicated: max. width and min. length of gaps, limits of surface roughness which form pressure-resistant joints acc. to GOST R [ГОСТ Р] 51330.1-99 (MEK [МЭК] 60079-1-98); cable sealing in the cable inlets through a special sealing element acc. to GOST R [ГОСТ Р] 51330.8-99;
- 8) moulding of the conducting parts of the equipment to be built in with a protection through compound [mass] acc. to the requirements of GOST R [ГОСТ Р] 51330.17-99 (MEK [МЭК] 60079-18-92);
- 9) limitation of temperature to max. 95° C on the outside surfaces of the boxes on which the deposit of burning dust is possible;

10) ensure the degree of protection IP 66 for the box casing against outside effects acc. to the requirements of GOST R [ГОСТ Р] (MEK [МЭК] 61241-1-1-99).

The **marking** shown on the casing contains the following data:

- sign or name of manufacturer's company;
- article name;
- current article number acc. to the numbering system of manufacturer's company;
- name or sign of the certifying centre and number of certificate;
- implosion-proof and fire-proof marking regarding burning dust;
- warning: "make sure to remove power plug before opening".

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Director of the entity	signature	A.S. Salogin
Inspector	signature	S.V. Serov

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**CERTIFICATION SYSTEM FOR EXPLOSION-PROOF EQUIPMENT  
CERTIFICATION SYSTEM GOST R [ГОСТ Р  
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- Spectrum of temperature values of the environment  
and further indications that are required acc. to the normative and technical documentations  
and that are to be indicated by the manufacturer in the marking or identification.

**4. Listing of approved drawings**

No. of drawing	Date of signature	Date of approval
06-4-122000-01-0	02.12.03	24.05.05
06-4-406000-01-0	02.12.03	24.05.05
10-2-151508-02-0	02.12.03	24.05.05
06-4-000001-03-0	02.12.03	24.05.05
06-3-304000-01-0	02.12.03	24.05.05
06-3-010560-03-0	02.12.03	24.05.05
06-3-406000-01-0	02.12.03	24.05.05
06-3-122000-01-0	02.12.03	24.05.05
05-3-010560-02-0	03.06.03	24.05.05
05-3-010560-03-0	03.06.03	24.05.05
05-4-000002-02-0	03.06.03	24.05.05
10-2-151508-02-0	03.06.03	24.05.05
06-4-000001-04-0	03.06.03	24.05.05
35-3-151508-02-0	24.11.03	24.05.05
35-3-151508-05-0	24.11.03	24.05.05
35-3-121209-01-0	24.11.03	24.05.05
35-3-151508-03-0	24.11.03	24.05.05
35-3-151508-04-0	24.11.03	24.05.05
35-4-151508-04-0	31.03.00	24.05.05
10-2-151508-02-0	03.04.03	24.05.05

The approved drawing may only be changed upon agreement with the Non-commercial autonomous scientific research institute “Centre for the certification of implosion-proof and electric min equipment [НАНИО „ЦСВЭ“ ]

Director of the entity  
Inspector

signature  
signature

A.S. Salogin  
S.V. Serow

Seal<Non-commercial autonomous scientific research institute „Centre for the certification of implosion-proof and electric mine equipment...>