

Nuclear Centre of Russian Federation
VNIEF

APPROVED

CERTIFICATION CENTRE "STB"

HEAD OFFICE OF
GOVERNMENT
ENERGY SUPERVISION
"GLAVGOSENERGONADZOR"

Explosion Proof and Mining Equipment
Certification Body

Accredited by Gosstandart of Russia
Reg. No ROSS RU.0001.11GB04, License 11GB04

10 September 1998

CERTIFICATE
OF EXPLOSION PROTECTION OF ELECTRIC INSTALLATIONS (DEVICES)

No A-0756

This is to certify that Xenon beacons of XB4 and SM87HXB range manufactured by MEDC (UK) are explosion protected.

On the basis of expert examination of technical documents and series-produced samples as well as explosion-proof tests it was found that the above-mentioned equipment complies with requirements of GOST 22782.0, GOST 22782.6 entailing the following explosion protection marking: 1ExdIICT4.

Additional requirements to technical documentation and facilities supplied to Russia are specified in Appendix to the present certificate.

The certificate is valid until 15 September 2003.
The validity of the certificate is extended until

Director

V.V.Bairak

APPENDIX
to Explosion Protection Certificate No A-0756

1. Purpose and Field of Application

Xenon light flashing alarms are designed for danger warning of personnel.

The product is made in several modifications that differ in dimensions and light sources.

The product is made in explosion-proof version and may be installed in explosive zones (Electric Equipment Operational Regulations, edition 6, part 7.3) in conformance with explosion protection marking.

2. Parameters of the product

Level and category of explosion protection	: IExdIICT4
Ingress protection	: IP 66
Power supply	: DC U = 24V, 48V, 110V (XB4 only) AC, 50/60Hz U = 110V, 120V, 220V, 240V, 254V

Admissible ambient temperature at the location of the product: from -55° to +55°C

3. Product Design Description and Explosion Protection Provision

3.1 Structural Features

The enclosure holds light source (lamp), electronic circuit to provide the preset power supply conditions, and terminal block.

The enclosure is made in explosion-proof version and consists of base and cover the latter being a cap that lets light pass and is attached to flange. The light transmitting element is protected by special guard.

3.2 Provision of Explosion Protection

Upon expert examination of technical documentation, appraisal and measuring of explosion-protection components parameters performed on series-production samples, acquaintance with manufacture practice as well as study of available Certificate of Compliance BAS No Ex88B1232 and BAS No Ex93C1269 it was found out that the products comply with requirements of IEC 79-0, 79-1 Editions and GOST22782.0 and GOST22782.6.

The product is "Explosion-proof enclosure" "d" type.

Explosion protection is provided by diametrical (cylindrical and conical) surfaces. Fig.1 shows parameters of slot gaps that provide explosion-proofness.

The products are fitted with special terminals for connecting earth wires.

Cable entry is made by means of special cable gland. Light transmitting cap is sealed and attached to flange by means of silicon compound.

Russian explosion protection marking IExdIICT4 is applied to the product.

4. Scope of supply

The scope of supply shall include:

- 1) Description
 - 2) Certificate of Compliance BAS No Ex88B1232 or BAS No Ex93C1269 (depending on modification)
 - 3) The present Certificate with Appendix attached.
5. Additional requirements placed on supplies to Russia

When the products are supplied to Russia the following requirements should be satisfied:

5.1 Technical documentation handed over to user shall contain the following information:

- 5.1.1 Service ambient temperature range at the location of the product;
- 5.1.2 Instructions on obligatory earthing by means of special earth terminals;
- 5.1.3 Instructions reading that components providing explosion protection are not allowed to have any defects such as marks, nicks, dents, damaged threads. It is not allowed to change slot gaps beyond tolerable limits. Defective components must be rejected and replaced by new ones supplied by the manufacturer;
- 5.1.4 Description must be supplemented with explosion protection drawing the parameters of explosion protection points being specified;
- 5.1.5 Instructions reading that power cable termination must be carried out with use of certified cable entry glands;
- 5.1.6 Instructions reading that industrial rubber parts employed in the product must enable to run the product within ambient temperature range specified in Part 2;
- 5.1.7 Instructions reading that the product is allowed to open in at least 15 min. after it is de-energized.

5.2 Requirements to equipment

- 5.2.1 It is prohibited to replace components, assemblies and parts ensuring explosion protection (including cables) by those of other standard size not provided for by the design;
- 5.2.2 The following label in Russian should be affixed onto body (cover) of the product:

EXPLOSION PROTECTION CERTIFICATE OF THE RUSSIAN FEDERATION

No A-0756

1ExdIICT4

“ ”

OPEN IN 15 MIN. AFTER DE-ENERGIZATION

- 5.3 When importing the products to Russia the manufacturer and supplier shall undertake to manufacture the products in accordance with approved documentation, obey all the requirements stated in Part 5 of the present Appendix and agree with Testing Centre (Certification Body) about all design variations affecting explosion proofness of the products.

6 List of documents agreed upon with Testing Centre

Item No	Description	Drawing No	Date
1	General view, XB4 modification	188-160 version E	01.10.1993
2	General view, HXB modification	162-312 version X, sheet 2	09.12.1987
3	Base XB4 (2 sheets)	188-112 version G	01.10.1992 sheet 1 14.03.1997 sheet 2
4	Flange (cover) XB4	188-115 version C	12.08.1992
5	Light transmitting element XB4 (2 sheets)	188-127 version C	12.04.1994
6	Label	188-130 version A	04.08.1993
7	Electrical schematics	188-148...153 version C	06.11.1992
8	Embedding of light transmitting element in cover	188-101 version F	13.08.1992
9	Base HXB	262-540 version A	28.05.1992
	Cover (flange) HXB	162-310 version C	02.01.1988
11	Light transmitting element	162-313	12.04.1994
12	Electrical schematics	262-870/871 version A 262-967 version A 362-319 version A 362-422 version A	09.01.1995 25.05.1995 29.11.1996 21.05.1997
13	Labels	LA734/831	15.05.1998
14	Embedding of light transmitting element in cover	162-312 version X, sheet 1	09.12.1987

7. List of documents making grounds for issue of Certificate:

7.1 Sample and manufacture inspection report No A1503.2-Pr.653

7.2 Explosion proof test report No A1503.2-Pr.654

8. Fig.1 is included in Appendix.

GLAVGOSENERGONADZOR RF

CERTIFICATION CENTRE STB

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