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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 1444-2008

Replacing GB 1444-1987

**Edison screw lamp holders specially used for explosion-proof
luminaires**

防爆灯具专用螺口式灯座

(English Translation)

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Foreword

All the technical contents of this standard is mandatory.

This standard should be GB 3836 "explosive environment with electrical equipment" used together.

This standard replaces GB 1444-1987 "explosion-proof luminaries screw lampholders."

This standard compared with GB 1444-1987, the major change of the following.

- Standard Scope is amended as increased safety explosion-proof lamps and non-sparking.
- Increasing the types of built-in lamp holder.
- Insulating material E27 lamp base plastic can be used to increase, the level of insulation material is class I.
- Proof chamber parameters to meet the requirements of IIC requirements.
- Increasing the connection request.
- Anti-quarter cracking tests in accordance with GB 17935 has been modified.
- Marking an increase of voltage, current, model requirements.
- Delete inspection rules, in accordance with GB 3836.1-2000 Added Appendix A test procedure.

The standard proposed by China National Light Industry Council.

This standard by the National Standardization Technical Committee of electrical lighting

(SAC/TC224) centralized.

This standard was drafted. National Lighting Fitting Quality Supervision and Inspection Center, the National Electric Light Source Quality Supervision and Inspection Center (Shanghai), Shanghai era Lighting Appliance Co., Ltd. Detection, Shanghai Institute of lighting.

Drafters of this standard. Gongfan Chang, in Licheng.

This standard was first published in 1978, 1987 and first revised edition is the second amendment.

Explosion-proof lamps and lanterns special screw lampholders

1 Scope

This standard specifies the special explosion-proof lighting screw lampholders type, requires basic parameters and dimensions, structures and materials, and testing and inspection program.

Note: The test procedures in Appendix A.

This standard applies to explosive atmospheres increased safety explosion-proof lamps and non-sparking dedicated screw lampholders (hereinafter referred to as the base).

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 1406 screw-type cap of the type and size (GB 1406-2001, eqv IEC 60061-1. 1969)
GB/T 2423.4 Environmental testing for electric and electronic products Part 2. Test methods - Test Db. Damp heat (12h + 12h cycle Ring) (GB/T 2423.4-2008, IEC 60068-2-30:2005, IDT) GB/T 2423.17 Environmental testing for electric and electronic products Part 2. Test methods - Test Ka. Salt Spray (GB/T 2423.17-2008, IEC 60068-2-11. 1981, IDT) GB 3836.1-2000 Electrical equipment for explosive gas atmospheres - Part 1. General requirements (eqv IEC 60079-0:1998) GB 3836.3-2000 Electrical equipment for explosive gas atmospheres Part 3. Increased Safety "e" (eqv IEC 60079-7:1990) GB/T 4207 solid insulating materials under moist conditions index tracking of the measuring method and the proof tracking index compared (GB/T 4207-2003, IEC 60112. 1979, IDT) GB/T 8411.1 ceramic and glass insulating materials - Part 1. Definitions and classification (GB/T 8411.1-2008, IEC 60672-1.

1995, MOD)

GB 17935-2007 screw lampholders (IEC 60238:2004, IDT) GB 19148.1 screw lampholders type and size (GB 19148.1-2003, IEC 60061-2:2001, MOD)

3 Types, basic parameters and dimensions

Type 3.1

3.1.1

lampholder fixation shall be made paperback style, fitted style.

3.1.2

lampholder of insulating material can be selected.

a) ceramics;

b) plastic (for E10, E14, E27);

Level c) an insulating material for other materials I level.

3.2 Basic parameters

The basic parameters of the lamp holder shall comply with the requirements in Table 1.

Table 1 The basic parameters of the lamp holder

Specifications of the connected lamp type	Maximum working voltage	/Maximum operating current	/Maximum rated power of the connected lamp
E10 E10/12			
E10/13 E10/13 x 11 E10/14 x 11	50	2.5	25
E14 E14/12 E14/23 x 15 E14/25 x 17	250	2.5	
60 E27 E27/25 E27/27 E27/35 x 30 E27/65 x 45	E40	E40/45	E40/55 x 47 E40/75 x 54
E40/75 x 64			

3.3 Lamp socket screw position

When the cap is screwed into the corresponding holder, screw the relative position of the center contact of the lamp holder shall comply with Figure 1 and Table 2, Figure 1 it is shown after the cap is screwed in completely, contact the center position.

The relative position of Figure 1 and the center of the lamp socket screw contacts

Table 2 lamp socket screw and contact center dimensions in millimeters

Lamp holder Specifications	Minimum	Maximum	Min	E10	7.5	9.3	3.5	E14	12	15	5	E27	17	21
7 E40	27	32	12											

3.4 Dimensions

Lampholder Mounting dimensions shall comply with the requirements of Table 3.

Table 3 lampholder Mounting dimensions

Specifications lamp holder mounting hole center distance D/mm installation aperture /mm
 Number of mounting holes E10 26 4 2 E14 30 4 2 E27 50 5 2 E40 70 6 2

3.5 Explosion-proof cell structure parameters

Proof contact center cell structure parameters within the lamp holder shall conform IIC cylindrical flameproof enclosure requirements, the specific parameters in Table 4.

Table 4. proof cell structure parameters

Type joints

Flameproof chamber net volume V_p /cm³ Flameproof joint length L /mm Flameproof joint maximum diameter difference W /mm Roughness Cylindrical $\leq 100 \geq 6$ 0.10 Lampholders paperback structure diagram shown in Figure 2.

- 1 --- insulating sheath;
- 2 --- center contact;
- 3 --- proof chamber;
- 4 --- plastic cover;
- 5 --- mounting holes;
- D --- Installation Center pitch.

Figure 2 base configuration

4 Structures and Materials

4.1

lampholder thread subject to the provisions of GB 19148.1.

Terminal connection wire 4.2 lampholder for space should be left at the bend radius of the wire connecting explosion chamber shall be the central contact terminals Connection of the external phase, with screw connection side marked "N" symbol.

Within 4.3 connecting thread between the metal lamp base, which linked debit shall be not less than 2 buckle.