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Specification for

Lamp caps and holders together with gauges for the control of interchangeability and safety —

**Part 4: Lamp caps, lampholders and
gauges used in the United Kingdom but
not specified in Parts 1, 2 or 3**

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Cooperating organizations

The Electrical Illumination Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Association of Manufacturers Allied to the Electrical and Electronic Industry (BEAMA)
- Association of Public Lighting Engineers
- British Glass Industry Research Association
- British Railways Board
- CBMPE
- Chartered Institution of Building Services
- Civil Aviation Authority
- Consumer Standards Advisory Committee of BSI
- Department of Industry (National Physical Laboratory)
- Department of the Environment (Building Research Establishment)
- Department of Transport
- Electricity Supply Industry in England and Wales
- Engineering Equipment Users' Association
- Health and Safety Executive
- Institute of Purchasing and Supply
- Institution of Electrical and Electronics Technicians Engineers Ltd.
- Institution of Electrical Engineers
- Lighting Industry Federation Ltd.*
- London Transport Executive
- Royal Institute of British Architects
- Society of British Gas Industries

The organization marked with an asterisk in the above list, together with the following, was directly represented on the committee entrusted with the preparation of this British Standard:

- British Electrical and Allied Manufacturers' Association (BEAMA)
- British Plastics Federation
- Electrical Contractors' Association
- Electrical Installation Equipment Manufacturers' Association (BEAMA)

This British Standard, having been prepared under the direction of the Electrical Illumination Standards Committee was published under the authority of the Executive Board and comes into effect on 30 June 1980

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Foreword

This Part of this British Standard has been prepared under the direction of the Electrical Illumination Standards Committee. It is based on a draft submitted by the Lighting Industry Federation and covers those lamp caps, lamp holders and gauges which are used in the United Kingdom but which have not been internationally standardized in IEC Publication 61.

A similar system of standard sheet identification to that used by the IEC has been followed.

The section in which the sheets appear is identified by the first number, i.e.

7004 Section 1: Lamp caps

7005 Section 2: Lamp holders

7006 Section 3: Gauges

The letters UK signify that the number is unique to BS 5101-4.

The sequence, which may not be continuous, in which the data sheets appear, is identified by the second number.

The issue number of an individual sheet is identified by the third number.

For example, 7005 UK 1060-1 describes an S15s lamp holder appearing in Section 2, the current data sheet being the first issue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 13 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

Part 4 of this British Standard is applicable to those lamp caps, holders and gauges which are used in the United Kingdom and which are not included in Parts 1, 2 and 3 for internationally standardized items. It specifies only those dimensions and requirements necessary for interchangeability and safety.

2 Requirements

Lamp caps, holders and gauges shall comply with the requirements shown on the individual data sheets in sections 1, 2 or 3.

3 Designation of lamp caps and holders

3.1 In general, a lamp cap and the corresponding holder is designated by one or more letters, followed by a number. This designation gives a concise indication of the part which is essential to ensure interchangeability of the cap in the holder. Capital letters are used, sometimes followed by a small letter. The letter or letters indicate the cap construction in accordance with the following code:

B — bayonet

BA — bayonet automobile

NOTE To distinguish whether a cap is a B or a BA cap, the following directives must be taken into account:

- the standard pin length for B15 caps is 0.9–1.1 mm, whereas for BA15 caps the standard pin length is 0.64 mm minimum;
- for BA caps, requirements, if any, for creepage distances are usually small in view of their operation at extra-low voltage.

BM — bayonet for mining lamps

E — screw thread

F — single contact pin (post, tab, etc.); a shell made of conducting material must be insulated from the contact making part of the pin

NOTE Different forms of pin are indicated by small letters after the letter F, as follows:

- a indicates a cylindrical pin;
- b indicates a fluted pin;
- c indicates a special shape of pin or protruding part.

G — two or more contact pins (posts, tabs, etc.); a shell made of conducting material must be insulated from the contact making pins

NOTE This group incorporates the former bi-post caps.

K — with flexible connection(s)

P — prefocus

R — recessed contact(s)

S — shell

SV — shell with conical end

T — for telephone lamps

W — base of capless lamp making direct electrical contact through the leading-in wires, the glass part being essential for the fit in the holder

3.2 The number following the cap construction letter(s) indicates the approximate value in millimetres of the principal dimension of the cap or base, viz.:

For **B** — the diameter of the shell

For **BA** — the diameter of the shell

For **BM** — the diameter of the shell

For **E** — the crest diameter of the screw thread

For **F** — the diameter or other similar important dimension of the pin

For **G** — the pin spacing: for two pins the distance between centres of the pins, for more pins of which the centres are situated on a circle, the diameter of the circle

If the centres of the pins are not all situated on a circle, the distance between the centres of the contact-making pins for the main circuit or the diameter of the circle through the centres of the contact-making pins

For **K** — the diameter of the shell

For **P** — the diameter or other important dimension of the part by which the lamp is located laterally (The P15 and P22 prefocus caps hitherto forming the only exceptions, will now follow the general rule and will be designated P30 and P36)

For **R** — the largest transverse dimension of that part of the insulating body which is essential for the fit in the holder

For **S** — the diameter of the shell or the dimension of that part which is essential for the fit in the holder

For **SV** — the diameter of the shell

For **T** — the external width measured across the contact plates or a corresponding dimension

For **W** — the added thickness of the seal and one contact wire followed by the multiplication sign $\times$ and the width

Examples: E27

BA15

G13

P28

RI7

T6.8

W2.1 $\times$ 9.5

3.3 The above designations may be too general, and it is therefore often necessary to give an additional indication to distinguish characteristics such as the following, given in the order in which they appear below:

1) *For either a cap or a holder:*

— a small letter indicating the number of contacts (plates, pins, plungers, springs or tubes) or flexible connections:

s for one

d for two

t for three

q for four

p for five

— a number, a letter or possibly a combination of symbols preceded by a hyphen, indicating the number of locating elements such as pins, lugs, slots, etc. or other indication essential for the fit.

Examples:

B22d-3 (90°/135°) A bayonet cap with a shell diameter of 22 mm approximately, having two contacts and three locating pins with an angular distribution of 90° and two times 135° or a bayonet holder with an internal diameter of 22 mm approx., having two contact plungers and three slots with an angular distribution of 90° and two times 135°.

G25t-59 A three pin cap with a shell diameter of 59 mm approximately, the centres of the pins being situated on a circle with a diameter of 25 mm approx., or alternatively a holder with an internal diameter of 59 mm approx., with three contact tubes, situated on a circle of approx. 25 mm diameter.

NOTE In the latter example, it should be obvious that the number 59, in view of its size, does not refer to the number of locating elements.