SRI LANKA STANDARD 164 : 2017

UDC 621.316.541

SPECIFICATION FOR

BAYONET CAP ADAPTORS (LAMPHOLDER PLUGS)

(First Revision)

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
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(First Revision)

SLS 164: 2017

Gr. 4

SRI LANKA STANDARDS INSTITUTION
No, 17, Victoria Place
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SRI LANKA

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This standard does not purport to include all the necessary provisions of a contract.

Sri Lanka Standard
SPECIFICATION FOR
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(First Revision)

FOREWORD

This standard was approved by the Sectoral Committee on Electrical Appliances and Accessories and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2017-02-24.

This is the first revision of **SLS 164:2017** and in this revision of the standard specifies requirements for materials, construction, dimensions, sampling and compliance, tests and markings. In this revision metric units are removed and the standard is re-structured.

All values given in this specification are in SI units.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or an analysis shall be rounded off in accordance with **SLS 102.** The number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.

Though the publication of the British Standards Institute and Standards Association of Australia were withdrawn, this standard to be retained for safety purpose as product is still being used in Sri Lanka,

1 SCOPE

This standard covers the materials, dimensions and tests for bayonet cap adaptors (Lampholder plugs) intended for use with Bayonet Lampholders, on a nominal voltage not exceeding 250 V and load current not exceeding 5 A.

2. REFERENCES

SLS 138 Bayonet lampholders
SLS 1504-2-31 Single core non-sheathed cables with thermoplastic PVC insulation

3 DEFINITIONS

For the purpose of this specification, the following definitions shall apply:

3.1 bayonet cap adapter (B. C. adopter) : A connecting device to a source of supply from a bayonet lampholder by means of a flexible cord, when an earth connection is not required.

3.2 clearances: The shortest distance measured in air between conductive parts.

3.3 cord grip: A means for gripping the flexible cord in such a manner that a tension (up to the limit specified in 7.4) imparted to the cord shall not be transmitted to the terminals.

3.4 creepage distance: The shortest distance over the surface of insulation between conductive parts.

3.5 defective adaptors: B. C. adaptors which do not comply with this specification in one or more respects.

3.6 lot : All the B. C. adaptors manufactured under similar conditions of production, using the same raw material, submitted for inspection and test at any one time shall be grouped together to constitute a lot.

3.7 pillar terminal: A terminal in which the conductor is secured in a hole or slot by pressure from a screw, the axis of which is preferably at right angles to the conductor.

4 MATERIALS

The materials for the component parts shall comply with the following requirements:

4.1 Metal inserts and screws

These shall be made of suitable corrosion resisting material such as hard drawn brass or phosphor bronze, having hardness and rigidity suitable for its use.

4.2 Insulating body and parts

These shall be made from non-ignitable insulating material or insulating material having low flammability

5 CONSTRUCTION

5.1 General

5.1.1 The body of B. C. adaptor shall be of robust construction and shall be such that no metal part other than terminals can become live in normal use.

5.1.2 The construction of the B. C. adaptors shall be such that, apart from contacts, there is no exposed metal other than the bayonet pins.

5.1.3 The B. C. adaptor shall be provided with a cord grip. The cord gripping device shall be such that it does not damage the insulation of the flexible cord.

5.1.4 The cover of the B. C. adaptor shall be so made as to be firmly screwed to the base of the adaptor with an adequate number of threads, and shall be provided with a good grip for easy handling. It shall have only one outlet. The minimum distance from the center of the hole of the cover, to the cord grip when the cover is tightly secured to the base shall be 5 mm.

5.1.5 Bayonet pins shall be rigidly held in position in the body of the B. C. adaptor. They shall be inserted in the insulating material of the body to a depth of at least 4.76 mm.

5.2 Terminals and conducts

5.2.1 The terminals shall be of a type in which each conductor is gripped independently at the respective terminal. All terminals shall be so located that they are prevented from rotating when the terminal screws are turned.

5.2.2 Contact plates and/or adjacent molded material shall have rounded or beveled edges and shall be so formed as to ensure easy engagement with the plungers of the lampholders.

5.2.3 Terminals and/or contact plates of the removable type shall be so designed with regard to location in recesses that only correct and positive register is possible on assembly.

5.2.4 Where pillar terminals are used they shall have the following dimensions.

5.2.4.1 Diameter of hole for conductor 3.18 mm minimum.

5.2.4.2 The diameter of the clamping screw 2.80 mm minimum.

5.2.4.3 Thickness of the wall through which the clamping screw passes 1.27 mm.

5.2.4.4 The diameter of the hole shall not permit a clearance greater than 0.4 mm on either side of the clamping screw.

5.2.4.5 The screw shall be long enough under the head to extend to the far side of the conductor hole. In order to minimize damage to the conductor, the screw shall have a slightly rounded end and the wall of the hole (against which the screw clamps the conductor) shall be unbroken.

5.2.5 Terminals not of the pillar type shall have means for preventing the strands of the conductor from slipping out when the screws are tightened.

5.2.6 An insulating barrier forming an in internal part of the B. C. adaptor shall be provided between the terminals to prevent inadvertent contact between conductors at different potentials. This may form part of the code grip.

5.2.7 ***Clearance and creepage distances***.

The creepage distance between live parts of opposite polarity shall be not less than 2.5 mm. The clearance in air between live metal parts of the opposite polarity shall be not less than 2 mm.

6 DIMENSIONS

B. C. adaptors shall be as illustrated in Figure **1** and shall have the dimensions shown in Table **1**.

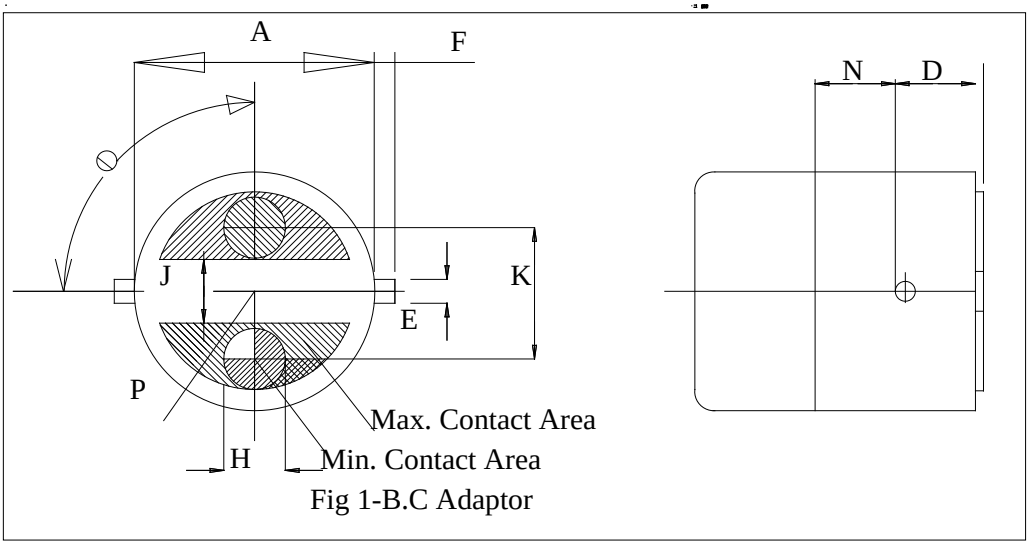


Fig 1-B.C Adaptor

FIGURE 1 – B.C. Adaptor

TABLE 1 - Dimension of B. C. Adaptors

Reference letter	Dimension	
	min	max
(1)	(2)	(3)
A	21.75 mm	22.15 mm
D*	6.0 mm	8.0 mm
E	1.8 mm	2.2 mm
F	2.3 mm	2.7 mm
H	5.08 mm	----
J	4.0 mm	----
K	10.0 mm	11.3 mm
N**	6.7 mm	----
P (rad.)	----	8.65
θ	82^{o} 30’	97^{o} 30’

* This dimension is from the contact places to that part of the pin indicated in Figure **1**
** N denotes minimum length of straight barred for interchangeability.

7 MARKING

Following markings shall be marked legibly and indelibly on each adaptor.

a) Brand name or trade mark of the manufacturer

b) Rated voltage

c) Rated current

d) Country of manufacture.

8 SAMPLING AND COMPLIANCE WITH SPECIFICATION

8.1 Sampling

The following sampling procedure shall be applied to determine whether or not a lot complies with the requirements of the specification.

8.1.1 From each lot draw at random the relevant number of B. C. adaptor indicated in Column **2** of Table **2**.

8.1.*2* If the B. C. adaptors are packed in cartons draw at random the relevant number of cartons and from each draw one B. C. adaptor at random. If the number of cartons is less than the number of B. C. adopters required draw at least one B. C. adopter from each carton. The sample so drawn shall be deemed to represent the lot.

TABLE 2 – Sampling procedure

Lot size	Sample size	No. of defective adaptors allowed
(1)	**(2)**	**(3)**
0 - 200	5	0
201 - 500	7	0
501 - 1000	10	0
1001 - 3000	15	1
3001 - 8000	20	1
8001 and above	25	1

8.2 Compliance with specification – The lot shall be deemed to comply with the requirements of this specification if after inspection and tests not more than the relevant number of defective B. C adaptor in Column 3 of Table **2** is found.

9 TESTS

9.1 Dimensions

All dimensions shall be given in Table **1**.

9.2 Insulation resistant test

Insulation resistance shall be measured at a dc voltage of 500 V.

i) Between conductors; and
ii) Between conductors and exposed metal, the B. C. adaptor being inserted in a metal lampholder from which the inner components have been removed, and the dimensions of which are in accordance with **SLS 138**.

The measured insulation resistance shall be not less than 50 MΩ.

9.3 High voltage test

An ac voltage 1000 V, 50 Hz shall be applied for a period of not less than 5 seconds at each of the points mentioned in **8.2**. No breakdown or flashover shall occur.

9.4 Test of cord grip

The B. C. adaptor shall be wired with 0.5 mm^2, twisted twin, flexible cord complying with **SLS 1504 -2-31** with the terminal screws tightened only sufficiently to stop the conductors from slipping out of the terminals, but not sufficiently to influence the effectiveness of the cord grip. The cord shall then be subjected to a steady load of 4.5 kg force for one minute, steadily. This shall be repeated 3 times, the load being removed after each test.

At the end of the three tests, the flexible cord shall not have moved noticeably in the cord grip.

10 CONFORMITY

The B. C. adaptors shall be considered as conforming to the requirements of this standard if the adaptors pass the tests specified in **9** and are in agreement with the requirements specified in this standard.

11 CERTIFICATE OF COMPLIANCE

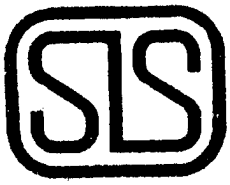
The manufacturer shall satisfy himself that the B. C. adaptors conform to the requirements of this standard and shall if requested furnish a certificate to this effect from a recognized body or institution to the purchaser or his representative.

…….

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI *which includes surveillance inspection of the factory, testing of both factory and market samples.*

Further particulars of the terms and conditions of the permit may be obtained from the Sri *Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.*



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SRI LANKA STANDARDS INSTITUTION

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