SRI LANKA STANDARD 948 : PART 1 : 1991

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SPECIFICATION FOR

THREE - PIN PLUGS SOCKET - OUTLETS AND SOCKET - OUTLET ADAPTORS

PART 1 - THREE - PIN PLUGS SOCKET - OUTLETS

AND SOCKET - OUTLET ADAPTORS

SRI LANKA STANDARDS INSTITUTION

SPECIFICATION FOR THREE-PIN PLUGS SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

PART 1 : THREE-PIN PLUGS SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

SLS 948 : Part 1 : 1991
(Attached AMD 239, 255, 348, 440 & Corrigendum Sheet)

Gr. 15

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SRI LANKA STANDARD

SPECIFICATION FOR THREE-PIN PLUGS SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

PART 1 : PLUGS SOCKET-OUTLETS AND ADAPTORS

FOREWORD

This standard was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 1991.12.31, after the draft, finalized by the Drafting Committee on Electrical accessories, had been approved by the Electrical Engineering Divisional Committee.

This standard supersedes SLS 512 : 1981, and is presented in three parts, namely;
Part 1 Plugs, socket-outlets and adaptors,
Part 2 Plugs made of resilient materials and
Part 3 Switched socket-outlets.

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 results of a test or an analysis shall be rounded off in accordance with CS 102. The number of figures to be retained in the rounded off values shall be the same as that of the specified value in this standard.

The Sri Lanka Standards Institution gratefully acknowledges the use of the publications of the British Standards Institution in the preparation of this standard.

1 SCOPE

This specification relates to plugs (fused and non-fused), and socket-outlets (shuttered and non-shuttered) and fused socket-outlet adaptors(shuttered and non-shuttered).

2 REFERENCES

BS 646 Cartridge fuse links (rated up to 5 ampere) for a.c. and d.c.
BS 771 Phenolic molding materials
BS 1322 Amainoplastic moulding material
BS 2782 Methods of testing plastics Part 1 Effect of temperature
CS 102 Presentation of numerical values
SLS 6 Wood screws

3 DEFINITIONS

For the purpose of this standard the following definitions shall apply :

3.1 **plug** : A device carrying three metallic plug pins substantially cylindrical in form intended for engagement with corresponding socket contacts or adaptor contacts and arranged for connection to 3-core flexible cord or cable.

3.2 **fused-plug** : A plug with a fuse-link within it in circuit between the line plug pin and its terminal.

3.3 **pillar terminal** : A terminal in which the wire is put through a hole or slot in which it is secured by the end of a screw the axis of which is at an angle to the wire.

3.4 **socket-outlet** : A device carrying three metallic socket contacts designed for engagement with corresponding plug pins or adaptor pins and arranged for connection to fixed wiring.

3.5 **socket-outlet adaptor** : A device carrying three metallic adaptor pins substantially cylindrical in form (called the 'plug portion') intended for engagement with corresponding socket contacts, and also carrying one or more sets of adaptor contacts (called 'outlets') intended for engagement with corresponding plug pins. A fuse is fitted in the socket-outlet adaptor for each outlet of smaller current rating than that of the plug portion.

3.6 **shuttered socket-outlet** : A socket-outlet having provision for screening its line and neutral socket contacts automatically with a shutter when they are not in engagement with corresponding plug pins or adaptor pins.

3.7 **shuttered socket-outlet adaptor** : A socket-outlet adaptor having provision for screening each of its line and neutral adaptor contacts automatically with a shutter when they are not in engagement with corresponding plug pins.

NOTE

In this standard the term 'pin' shall be interpreted as meaning either a plug pin or an adaptor pin, and the terms 'contact' meaning either a socket contact or an adaptor contact, according to the context.

3.8 Tests

3.8.1 *acceptance tests* : A test of a relatively small number of articles selected from a batch, intended to show that all other articles of the same batch would, or would not, pass an identical test.

3.8.2 *type tests* : A test of an article intended to show that all other articles made to the same design would or would not pass an identical test.

4 GENERAL REQUIREMENTS

In general , the provisions of this standard shall apply to plugs when wired with appropriate flexible cord or cable, and to socket-outlets installed.

4.1 Positions of socket contacts

When viewed from the front of a socket-outlet, the socket contacts shall have the relative positions shown in Fig. 1.

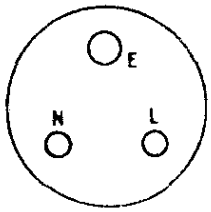


FIGURE 1

4.2 Interchangeability

Plugs, socket-outlets, and socket-outlet adaptors shall be tested for interchangeability in accordance with 9.1.

4.3 Current rating

The current rating of non-fused plugs and of socket-outlets, and the nominal current rating of fused plugs (i.e. their current rating apart from the fuse), shall be either 5 A or 15 A.

The actual current rating of a fused-plug as a whole being necessarily that of the fuse-link included in it, the current rating shall be expressed in terms both of the nominal current and of the current rating of the fuse-link, in the form of two numbers separated by a stroke; for example, 15/5 shall be the current rating of a fused-plug of a nominal current rating of 15 A , including a 5 A fuse-link.

For current ratings of socket-outlet adaptors see 7.3

4.4 Precautions against accidental contact

Unless the external portions of the current-carrying parts of pins adjacent to a plug base or a socket-outlet adaptor base are insulated with sleeves of the minimum length given in Table 1, no part of them shall be less than the minimum distance given in Table 1 from the periphery of the plug base or of the socket-outlet adaptor base.

TABLE 1 – Lengths and distances

Current rating A (1)	Minimum length mm (2)	Minimum distance mm (3)
5	6.4	7.9
15	7.9	9.5

Plugs, socket-outlets and socket-outlet adaptors shall be so constructed as to :

a) prevent an earthing-pin from making contact with a current carrying contact in any circumstances,

b) prevent a current-carrying pin from making contact with a current-carrying contact while either or both of the other pins are completely exposed, and

c) ensure that when a plug is withdrawn from a shuttered socket-outlet the current-carrying socket contacts are automatically screened by shutters not operated solely by the insertion of one current-carrying pin.

Such shutters shall be deemed to constitute compliance with the requirements given in b).

The current-carrying contacts shall be sunk below the surface of the socket-outlet or socket-outlet adaptor so as to ensure compliance with 4.5, and in such a way as to make it impossible for them to be touched unintentionally.

4.5 Engagement of pins and contacts

On insertion of pins into contacts the travel from the first point of contact of current-carrying parts to complete engagement shall be not less than the minimum, or more than the maximum, given in Table 2, and there shall be electrical connection between pins and contacts throughout the travel.

TABLE 2 - Contact travel

Current rating A (1)	Minimum mm (2)	Maximum mm (3)
5	4.2	6.3
15	4.8	6.8

An earthing pin shall make and break contact with the corresponding earthing contact respectively before and after the associated current-carrying pins make and break contact with the corresponding current-carrying contacts.

There shall be no projections on the face of a plug base, or on the face of a socket-outlet, such as would prevent complete engagement between pins and contacts, within a circle having the radius given in Table 3 and concentric with the circle through the centers of the pins and the centers of the contacts.

TABLE 3 - Radius of engagement circle

Current rating A (1)	Radius mm (2)
5	27.2
15	32.3

4.6 Spacing of pins and contacts

The nominal distance between centers of pins shall be as given in Table 4. The spacing of contacts shall correspond to that of pins.

TABLE 4 - Pin spacing

Current rating A (1)	Nominal distance between centers of current-carrying pins mm (2)	Nominal distance between centers of each current-carrying pin and the earthing pin mm (3)
5	19.1	22.2
15	25.4	28.6

4.7 Earthing of exposed metal parts

Any metal part of a plug, or of a socket-outlet adaptor, that may be exposed when the plug or the socket-outlet adaptor is in complete engagement with a socket-outlet shall be in effective electrical connection with the earthing pin.

All exposed metal parts of a socket-outlet shall be in effective electrical connection with the earthing contact except that metal parts on, or screws in or through, non-conducting material, and separated by such material from current-carrying parts in such a way that in normal usage they cannot become live, need not be in effective electrical connection with the earthing contact.

4.8 Clearance and creepage

The minimum clearance distance in air, and the minimum creepage distance, shall be 2.5 mm.

4.9 **Materials**

All components shall conform to relevant standards as given below. Parts made of ferrous metal shall be rendered rust-proof, and shall conform to the relevant standards, special attention being given to springs and moving parts.

The material of the shutter shall not distort sufficiently to impede its action.

The following material shall be used in the component parts as specified in Table 5.

a) Tough, non-ignitable insulating material having a plastic yield not exceeding 6 mm when tested at 100 ^{0}C in accordance with the plastic yield test, Method 115 A of **BS 2782 : Part 1.**

b) Tough, non-ignitable insulating material having a plastic yield not exceeding 6 mm when tested at 100 ^{0}C in accordance with the plastic yield test, Method 115 A of **BS 2782 : Part 1,** and such that it will comply with the cold water absorption tests for Type HS material to **BS 1322.**

c) Vitrified ceramic material such that after 24 hours' immersion in water shall not have increased in weight by more that one-half of one per cent after all moisture has been removed from the surface. The resistance of the material to water shall not depend on glaze.

d) Brass, phosphor-bronze, and/or other suitable material.

TABLE 5 - Materials for component parts

Part (1)	**Material** (2)
Plug base and plug cover Socket-outlet adaptor base Shutter	a
Socket-outlet cover (or plate)	a or d
Socket-outlet base	b or c
Current-carrying parts, including earthing pin and earthing contact	d

5 SPECIAL REQUIREMENTS FOR PLUGS

5.1 Fuse-links

Provision shall be made within a fused-plug for a Type A fuse-link to BS 646, (Ordinary-duty 250 V cartridge fuses rated up to 5 A) for a.c. and d.c. service. The fuse-link shall be mounted in appropriate fixed contacts in such a way it cannot be displaced when the plug is in use.

Means shall be provided to protect the hand against damage from blowing of the fuse during the insertion or withdrawal of a plug; the plug as a whole shall be strong enough not to fracture should the fuse-link burst on blowing in service.

It shall be impossible to replace a fuse-link in a fused-plug unless the plug is completely withdrawn from the socket-outlet.

5.2 Plug cover and plug base

The plug cover and the plug base shall be firmly secured to one another. It shall be impossible to remove the plug cover unless the plug, is completely withdrawn from the socket-outlet. The minimum thickness of a plug base where the plug pins pass through it shall be as given in Table 6, and unless the plug pins are rigidly fixed in the plug base the diameter of the holes in the plug base through which they pass shall be such that they have a total lateral movement of not more than 0.15 mm.

TABLE 6 - Minimum thickness of plug base

Current rating A (1)	Minimum thickness mm (2)
5	3.2
15	4.7

Particular care should be taken to ensure adequate mechanical strength, since the normal usage of plugs tends to be rough.

5.3 Plug pins

Plug pins shall be substantially cylindrical in form , and shall have radius ends to facilitate entry into corresponding socket contacts. Their dimensions shall be as given in Table 7.

TABLE 7 - Dimensions of plug pins

Current rating A (1)	Plug pins (2)	Diameter mm (3)	Length of radiused end portion mm (4)	Total projection from plug base mm (5)
5	Current-carrying	5.08	1.58	14.86
	Earthing	7.06	1.98	20.62
15	Current-carrying	7.06	1.98	18.62
	Earthing	8.71	2.36	28.58
Tolerance		+0.03 -0.03	+0.25 -0.00	+0.76 -0.13

The plug pins shall be solid, split, or slotted axially with a single slot. If they are slotted the dimensions of the slots shall be as given in Table 8.

TABLE 8 - Dimensions of slots in plug pins

Current rating A (1)	Plug pins (2)	Nominal width of slot mm (3)	Minimum length of slot mm (4)
5	Current-carrying	0.6	7.6
	Earthing	0.8	10.7
15	Current-carrying	0.8	10.7
	Earthing	0.8	17.0

The construction of a split plug pin or of a slotted plug pin shall be such as to prevent it from closing to less than its specified diameter. The means of ensuring this shall be an integral part of the plug pin.

5.4 Construction of plug pins and terminals

Each plug pin of a non-fused plug, each earthing plug pin, and each neutral plug pin of a fused-plug, shall be formed in one piece with the fixed part of its terminal.

Each terminal shall be of substantial construction, and the terminals of a non-fused plug, and the earthing terminal and the neutral terminal of a fused-plug, shall each provide for clamping and securing its flexible conductor so that efficient electrical connection is made direct with an integral part of the plug pin. The connection of the flexible conductor to the earthing plug pin shall be visible when the cover of the plug is in position.

That contact for the fuse-link which is connected to the line terminal of a fused-plug shall be formed in one piece with the fixed part of the terminal, or connected to it in such a way that it cannot work loose under normal service conditions, and the other contact shall be similarly connected to the corresponding plug pin. The line terminal shall also provide for clamping and securing the conductor so that efficient electrical connection is made with the contact for the fuse-link.

If the plug pins are removable from the plug base the pins and/or the plug base shall be so designed that it is impossible to assemble them in such a way that the fuse is connected to the neutral terminal.

When pillar terminals are used they shall be of the dimensions given in Table 9, and shall have cheese-headed clamping screws long enough under the head to extend to the far side of the conductor holes and with slightly rounded ends to minimize damage to conductors.

TABLE 9 - Dimensions of pillar terminals

Current rating A (1)	Minimum nominal diameter of hole for conductor mm (2)	Minimum thickness of wall where clamping screw passing through mm (3)	Minimum diameter of clamping screw mm (4)
5	3.0	1.6	3.0
15	4.0	3.2	3.5

5.5 Separation of terminals and conductors

Insulating barriers forming an integral part of the plug shall be provided so as to separate metal at different potentials, including bared flexible conductors. The barriers shall be such that when the plug has been correctly wired and assembled there is negligible risk that a wire or strand that may become loose shall touch other parts with which contact may be dangerous.

5.6 Method of entry of flexible cord or cables

The flexible cord or cable shall enter the plug through one hole, groove, or gland, and there shall be provision for gripping and protecting, at the point of entry, a 3-core circular flexible cord or cable as given in Table 10 together with its protective covering or sheath, to prevent stress on the connections with the terminals.

TABLE 10 - Overall diameters of flexible cords and cables

Current rating A (1)	For non fused plugs mm (2)	For fused-plugs mm (3)
5	6.4 - 8.6	5.2 - 9.4
15	8.0 - 11.7	5.2 - 9.4

The flexible cord or cable shall enter at the side opposite to the earthing plug pin and between the current-carrying plug pins.

5.7 Finger grip

A finger grip or other suitable means shall be provided for inserting and withdrawing the plug without subjecting the flexible cord or cable to any stress, and such grip shall be so designed as to discourage gripping the plug by the fingers at the point of entry of the flexible cord or cable.

6 SPECIAL REQUIREMENTS FOR SOCKET-OUTLETS

6.1 Socket Contacts

The socket contacts shall be so shaped at the point of entry as to provide easy access for appropriate plug pins. They shall be self-adjusting as to contact making, and shall also be self-adjusting as to pitch at least up to the limits permitting them to accept the gauges specified in Appendix A , and each socket contact shall be such as to make and maintain, under normal service conditions, effective electrical and mechanical contact with a corresponding plug pin having the maximum diameter, and also with a corresponding plug pin having the minimum diameter, specified in 5.3. The means for producing the contact pressure shall be associated with each socket contact independently.

Unless there is a shutter intended to prevent current-carrying socket contacts from being touched, the diameter of the holes in the socket-outlets plate or cover for the reception of current-carrying plug pins shall be not greater than shown in Table 11.

TABLE 11 - Socket contact holes

Current rating A (1)	Maximum diameter mm (2)
5	5.7
15	7.7

6.2 Construction of socket contacts and terminals

Each socket contact shall be provided with a terminal, which shall be of substantial construction and shall be connected to its socket contact in such a way that it cannot work loose under normal service conditions.

Each terminal shall provide adequate means of clamping firmly a maximum of two appropriate conductors.

When pillar terminals are used they shall be of the dimensions given in Table 12, and shall have cheese-headed clamping screws long enough under the head to extend to the far side of the conductor holes and with slightly rounded ends to minimize damage to conductor.

TABLE 12 - Dimensions of pillar terminals

Current rating A (1)	Nominal diameter of hole for conductor mm (2)	Minimum thickness of wall where clamping screw passes through mm (3)	Minimum diameter of clamping screw mm (4)
5	3.6	1.6	3.0
15	4.4	3.2	3.5

6.3 Separation of terminals and conductors

Insulating barriers securely fixed into, or forming an integral part of, the socket-outlet shall be provided to separate metal at different potentials within the socket-outlet.

6.4 Fixing holes

The fixing-holes in the socket-outlet shall be suitable for wood screws of the sizes No.6 conforming to SLS 6.

6.5 Position of fixing-holes

The fixing-holes in a socket-outlet intended for fixing by means of flanges shall have their centres not less than the 6.4 mm from the sunk portion of the socket-outlet.

6.6 Base of surface-type socket-outlet

Means integral with the base of a surface-type socket-outlet shall be provided to ensure proper seating on a flat surface.

The diameter of any holes for conductors through the base shall be as given in Table 13. The construction shall be such that the distance from terminals to the surface on which the socket-outlet in mounted is not less than 3.2 mm.

TABLE 13 - Conductor hole diameters

Current rating A (1)	Minimum diameter at terminal mm (2)	Minimum diameter at entry mm (3)
5	4.8	7.9
15	6.4	9.5

Unless there is the minimum clearance specified in 4.8 between metal parts or screws and the surface on which the socket-outlet is mounted, all holes in the base for the fixing of component parts shall be filled in with a non-hygroscopic insulant that will not flow at 55 ^{0}C.

7 SPECIAL REQUIREMENTS FOR SOCKET-OUTLET ADAPTORS

7.1 General

Socket-outlets adaptors, in addition to complying with the relevant clauses of this standard in features of plugs and socket-outlets common to socket-outlet adaptors, shall comply with the following.

7.2 Fuse-links

Provision shall be made within the body of a socket-outlet adaptor for Type A fuse-links to BS 646. The fuse-links shall be mounted in appropriate fixed contacts between the line pin and the line contacts of outlets in such a way that they cannot become displaced when the socket-outlet adaptor is in use.

Means shall be provided to protect the hand against damage from the blowing of a fuse-link during the insertion of a socket-outlet adaptor into, or its withdrawal from, a socket-outlet, or during the insertion of a plug into, or its withdrawal from, an outlet; and the socket-outlet adaptor as a whole shall be strong enough not to fracture should the fuse-link burst on blowing in service.

It shall be impossible to replace a fuse-link in a socket-outlet adaptor unless the socket-outlet adaptor is completely withdrawn from the socket-outlet.

7.3 Current rating of pins and contacts

The current rating of a plug portion shall be the same as the current rating of the socket-outlet with which it is to be used, and shall be either 5 A or 15 A.

8 MARKING

All plugs and socket-outlets and socket-outlet adaptors shall be clearly and indelibly marked with the manufacturer's name or identifying mark, and, in addition, with the following :

8.1 Plugs

a) Current rating;

b) Voltage rating;

c) The letters L and N the symbol ⏚ and, if practicable, should be accompanied by the letter E.

d) Fused plugs. The word FUSED so that it is visible when the plug is in engagement with a socket-outlet.

e) Fused plugs. The words USE CORRECT FUSE-LINKS, or words to this effect.

8.2 Socket-outlets

a) Current rating

b) The letters E, L, and N, to indicate the terminals corresponding respectively to the earthing socket contact (E), the line socket contact (L), and the neutral socket contact (N). The letters shall be as close as practicable to the corresponding terminals.

8.3 Socket-outlet adaptors

a) Current rating of the plug portion.
b) The word FUSED.
c) The words USE CORRECT FUSE-LINKS, or similar words.
d) The words TOTAL LOADING MUST NOT EXCEED * ..... AMPERES, or words to this effect.

9 TESTS

The plugs and socket-outlets and socket-outlet adaptors used for the tests shall be in clean, new condition at the commencement of the tests, and shall be identical in all essential details with those to be used in service.

The purchaser shall accept certificates of type tests as evidence of compliance with the requirements of this standard, and the manufacturer, shall hold available such certificates, together with detail drawings and a record of any alternations that have been made subsequent to the type tests. Type test shall be made by the manufacturer, but he shall arrange for a recognized authority to make any type tests for which he himself is not equipped.

**The value to be inserted is the current rating of the plug portion.*

9.1 Visual examination and Interchangeability

Plugs, socke-outlets, and socket-outlet adaptors shall be tested for compliance with the requirements, specified in 8 and interchangeability by means of the gauges specified in Appendix A. and compliance with the gauges shall be deemed to prove accuracy in respect of the relevant dimensions.

9.2 Effectiveness of contacts

The minimum withdrawal-pull of a gauge (see Fig. 6)

(a) from an individual socket contact in a complete socket-outlet, and

(b) from an individual adaptor contact in a complete socket-outlet adaptor, shall be as shown in Table 14. As an alternative to (a), the maximum voltage-drop between an individual socket contact in a complete socket-outlet and a corresponding plug pin, measured between the terminal of the socket contact and the terminal of the plug pin, shall be 25 millivolts at the current rating.

NOTE

If the alternative test is used, the plug pin shall be of brass and of the minimum dimensions.

TABLE 14 - Minimum withdrawal - pull for effectiveness of contact

Current rating	Minimum withdrawal-pull
A	N
(1)	(2)
5	2.2
15	3.3

During a withdrawal-pull test made in accordance with this clause, the socket-outlet and the socket-outlet adaptor shall be so held that the gauge is substantially vertical and the projecting part of it is downmost.

9.3 Withdrawal pull

The maximum withdrawal-pull of a plug from a socket-outlet shall be as shown in Table 15.

TABLE 15 - Maximum withdrawal - pull of complete plug

Current rating A (1)	Maximum withdrawal-pull N (2)
5	62.4
15	60.3

9.4 Insulation resistance

Each plug and socket-outlet and each socket-outlet adaptor tested shall pass an insulation resistance test before being subjected to a high-voltage test as required by 9.5. The insulation resistance shall be not less than 100 megaohms, and the test shall be made at approximately 500 V d.c. applied for a sufficient time for the reading of the measuring instrument to become steady, the voltage being obtained from an independent source or generated in the measuring instrument. The insulation resistance shall be measured
a) between line and neutral, and (b) between line and neutral connected together and any other parts insulated therefrom, including earthing terminals.

9.5 High-voltage test

Each plug and socket-outlet and each socket-outlet adaptor tested shall pass a momentary high-voltage test, for which the test voltage shall be 1500 V (r.m.s.) alternating, approximately of sine-wave form, at a frequency of approximately 50 Hz and shall be applied (a) between line and neutral, and (b) between line and neutral connected together and any other parts insulated therefrom, including earthing terminals.

9.6 Current-breaking capability

Plugs and socket-outlets, including the corresponding portions socket-outlet adaptors, shall be capable of breaking a current per cent in excess of their current rating when tested in a non-inductive d.c. circuit at 275 V . The test for current-breaking shall be made at room temperature. The plug and socket-outlet, and the corresponding portions of socket-outlet adaptors, shall break the circuit ten times in succession at intervals of approximately 30 seconds, the plug, or the socket-outlet adaptor, being withdrawn from the socket-outlet, or the plug from the outlet, at a speed of approximately 150 mm per second immediately after insertion. Socket-outlets shall be mounted for test as they are normally to be mounted in service. The earthing socket contact and the neutral socket contact shall be connected to the same pole of the supply. For the purpose of the tests, fuse-links may be replaced by links of negligible resistance.

9.7 Temperature rise of fused plugs and socket-outlet adaptors

Fused-plugs shall be tested in socket-outlets for temperature-rise at their current rating.

Socket-outlet adaptors shall be fitted into socket-outlets and equipped with non-fused plugs for temperature-rise tests. The fused outlets shall be loaded to their full rated capacity, and the non-fused outlet, if any, shall carry the difference between the sum of the currents carried by the fused outlets and the current rating of the plug portion.

The temperature rise of any terminal to which flexible cord is to be attached, and of the pins of socket-outlet adaptors, shall not exceed 35 ^{0}C after sufficient time has elapsed for the temperature to become steady. The fuse-links used in this test shall have a dissipation of not less than 0.45 W and not more than 0.5 watt for 5 A fuse-links.

The temperature-rise shall be measured by thermocouples attached by low-melting-point alloy or by some equally effective means of attachment.

NOTE

Base-metal thermocouples, attached by low-melting-point alloy of equal parts of lead, tin and bismuth, are suitable.

9.8 Shutters

Shutters shall be capable of continuing to work after having been operated mechanically 5000 times by the pins of corresponding plugs not carrying any current, at a rate not exceeding 20 complete cycles per minute, and at regular intervals. The means used for moving the pins shall be such as to give a speed of approximately 150 mm per second both during insertion and during withdrawal.

9.9 Mechanical strength of socket-outlets

9.9.1 The mechanical strength of socket-outlets and especially the mechanical strength of covers and boxes for flush type socket-outlets is tested using an impact test apparatus. A suitable appratus is described in Appendix B.

9.9.2 The socket-outlets are mounted on the support as in normal use and subjected to blows from the impact test apparatus.

9.9.3 Flush type socket outlets are placed in a recess in a block of hardwood so that the front of the box, if any, is flush with the block.

9.9.4 Boxes for flush type socket-outlets are also tested separately, held against the support with the base towards the hammer.

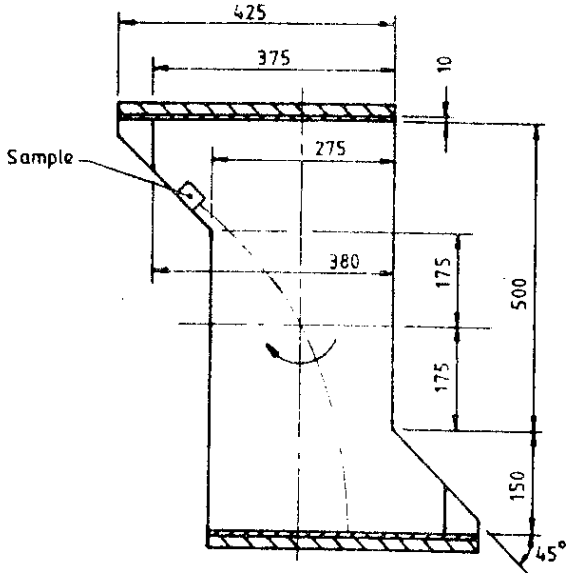
9.9.5 Ten blows are applied to points evenly distributed over the sample.

9.9.6 The impact energy for each blow shall be 0.25 J.

9.9.7 During the test, cracks may appear and small pieces may become detached but provided the external parts, such as covers, cover plates and boxes can be removed and replaced and the socket-outlets still satisfy 5, 7, 9.4 and 9.5 the socket-outlets are deemed to have passed the test.

9.10 Mechanical strength of plugs

9.10.1 The plugs are tested in the tumbling barrel as shown in Fig. 2.



All dimensions in millimetres

FIGURE 2 - Tumbling barrel

9.10.2 The sample is fitted with a flexible cord of length 100 mm of the corresponding current rating. The terminals and assembly screws are tightened to two thirds of the test torque specified in Table 16. The sample falls from a height of 500 mm on to a plywood base of 10 mm thickness. The barrel is turned at a rate of 5 r.p.m., 10 falls per minute thus taking place. Only one sample is tested at a time.

The sample is dropped :

a) 1 000 times if the mass of the sample is not over 0.10 kg ;
b) 500 times if the mass of the sample is over 0.10 kg and up to 0.20 kg ; and
c) 100 times if the mass of the sample is over 0.20 kg.

TABLE 16 - Torque for testing screws and connections

Diameter of screw (mm) (1)	Torque (N m)	
	Screws without head (2)	Other screws (3)
3.0	0.25	0.50
3.5	0.40	0.80

9.10.3 After the test, the samples shall show no signs of damage within the requirements of the specification. No parts shall have become detached or loosened, especially the connection of the flexible cord or cable to the terminals.

9.10.4 Pins shall not be deformed to an extent that they no longer comply with the requriements of 4.4 and 5.3. These shall be able to withstand a torque as specified in Table 16 in one direction or both directions as appropriate, without turning.

10 SAMPLING AND CRITERIA FOR CONFORMITY

10.1 Type tests

The following shall be carried out as type tests in the order given herein on selected samples of plugs and socket-outlets. The samples being drawn preferably at random from regular production lots.

a) Visual examination and interchangeability (9.1);
b) Efectiveness of contact of socket-outlet (9.2);
c) Maximum withdrawal pull for socket-outlet (9.3);
d) Insulation resistance (dry), (9.4)
e) High voltage (9.5);
f) Current breaking capability of socket-outlets (9.6)
g) Temperature rise (9.7);
h) Shutters (9.8);
j) Mechanical strength (9.9 and 9.10);

10.1.1 *Sample size*
The number of samples selected from a lot shall be five and each shall be subjected to the tests specified in 10.1

10.1.2 *Criteria for approval*
All samples subjected to the type tests shall pass all the tests for proving conformity with the requirements of this standard. If one or more failures occur, the testing authority at its discretion may call for twice the original number of samples and subject them to all tests, or to those in which failure occurred. No single failure shall be permitted in the repeat test(s).

10.2 Acceptance tests

The following shall constitute acceptance tests :
a) Visual examination and interchangeability (9.1);
b) Effectiveness of contact (9.2).
c) Withdrawal pull (9.3); and
d) Insulation resistance (9.4);
e) High voltage (9.5);
f) Currect breaking capability (9.6);
g) Temperature rise (9.7);
h) Shutters(9.8);
j) Mechanical strength (9.9 or 9.10);

10.2.1 A recommended sampling procedure for acceptance tests is specified in Appendix C.

APPENDIX A
GAUGES

A.1 'GO' GAUGES FOR PLUGS AND SOCKET-OUTLETS

'GO' gauge for plug (see Fig. 3 and Table 17). The gauge is to prove correct spacing of plug-pins. It accepts the plugs with plug-pins at any centres that can be accepted without interference in socket-outlets gauged by the maximum socket-gauges.

In addition it proves the absence of axial projection on the face of the plug-base when a plug is fully inserted into the gauge, and it also indicates accuracy of projection of the plug-pins from the face of the plug if the end of each plug pins lies within the appropriate step on the back of the gauge when the plug is inserted.

NOTE

Correctness of the diameter of individual plug-pins in accordance with Table 7 of 5.3 must be assured before this gauge is used.

A.2 'GO' gauges for socket-outlet (see Figs. 4 and 5 and Tables 18 and 19). Two gauges are required, each having pins of the maximum diameters specified in 5.3, but one gauge having its pins so set that its complete insertion into a socket-outlet proves that the socket-outlet will accept, without interference, a plug having plug-pins at the minimum centre distance. The socket-outlet gauges also prove the absence of axial projections on the face of the socket-outlet.

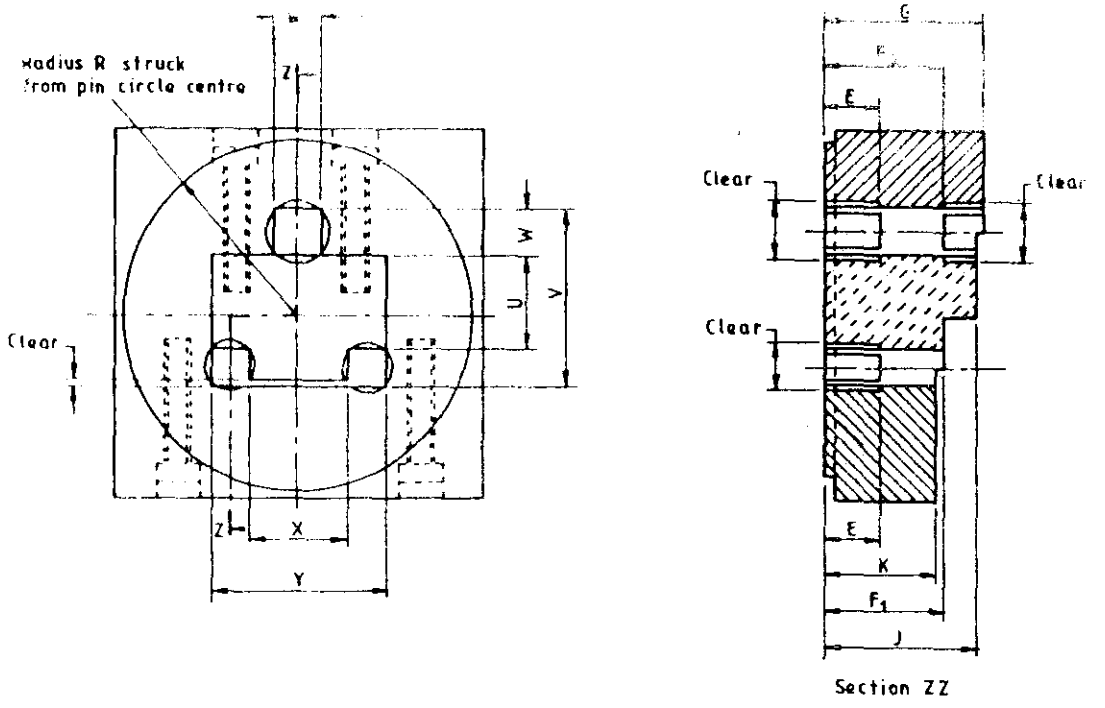


FIGURE 3 – 'Go' gauge or plug

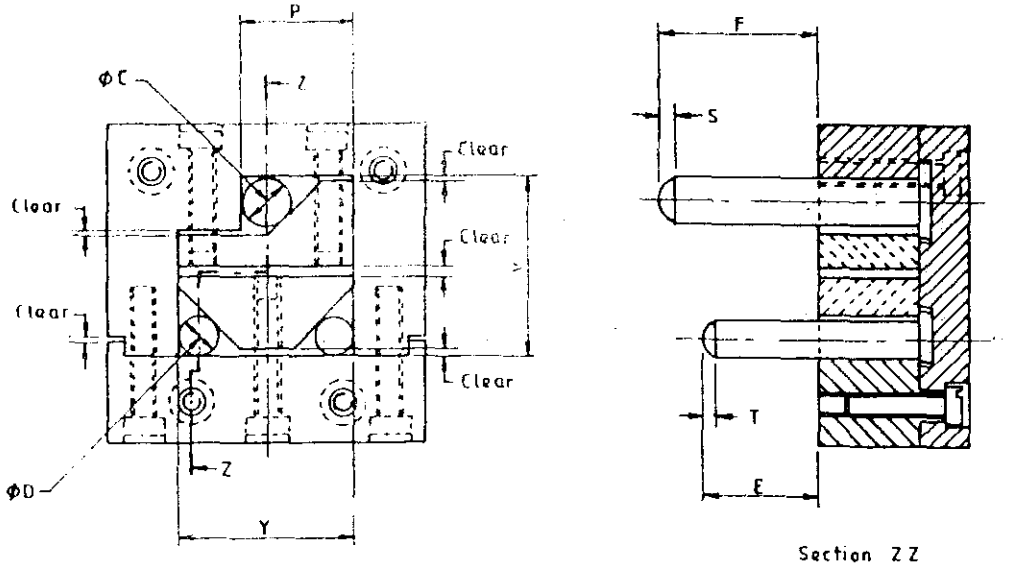


FIGURE 4 – Maximum 'Go' gauge for socket-outlet

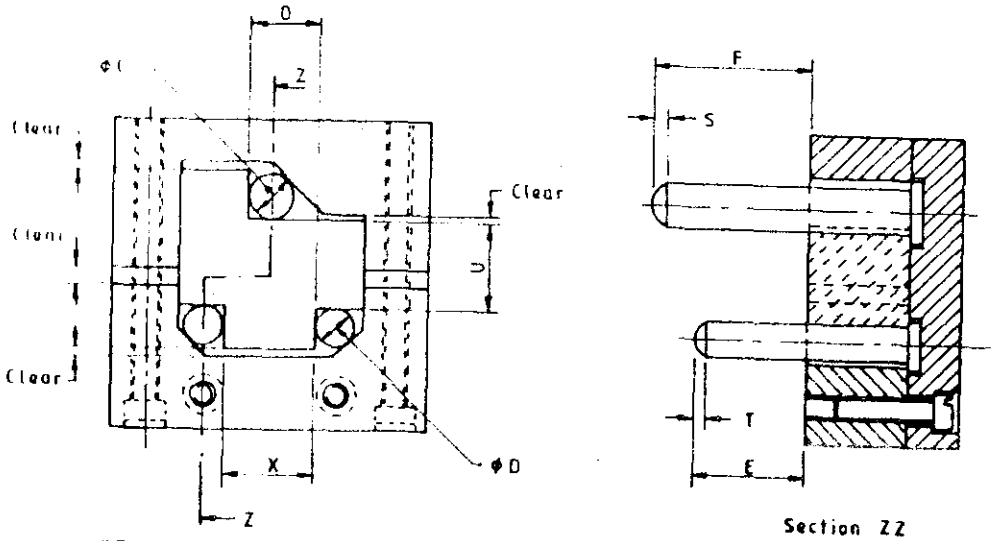


FIGURE 5 – Minimum 'Go' gauge for socket-outlet

TABLE 17 - 'Go' Gauge for plug

All dimensions in millimetres

Reference to Figure 3 (1)	For current rating of 5 A (2)	For current rating of 15 A (3)
U	+0.01 13.83 -0.00	+0.01 17.53 -0.00
V	+0.00 26.33 -0.01	+0.00 33.66 -0.01
W	+0.00 7.24 -0.01	+0.00 8.89 -0.01
X	+0.01 13.79 -0.01	+0.01 18.16 -0.01
Y	+0.00 24.31 -0.01	+0.00 32.64 -0.01
E	+0.25 7.62 -0.25	+0.25 10.16 -0.25
F1	+0.01 15.62 -0.00	+0.01 19.38 -0.00
G	+0.01 21.67 -0.00	+0.01 29.62 -0.00
J	+0.00 20.50 -0.01	+0.00 28.45 -0.01
K	+0.00 14.73 -0.01	+0.00 18.49 -0.01
R	27.18	32.26
F	+0.25 17.02 -0.25	+0.25 21.59 -0.05

TABLE 18 - Maximum "GO" gauge for socket-outlet
(See A.2.1 and Fig.4)
All dimensions in millimetres

Reference to Fig. 4 (1)	for current rating 5 A (2)	for current rating 15 A (3)
V	+0.01 26.33 -0.00	+0.01 33.66 -0.00
Y	+0.01 24.31 -0.00	+0.01 32.64 -0.00
C	+0.00 7.09 -0.01	+0.00 8.74 -0.01
D	+0.0 5.10 -0.01	+0.00 7.09 -0.01
E	+0.00 16.92 -0.01	+0.00 21.67 -0.01
F	+0.00 21.67 -0.01	+0.00 29.62 -0.01
$P = \frac{Y + C}{2}$	+0.005 15.70 -0.00	+0.005 20.69 -0.00
S	+0.25 1.98 -0.00	+0.25 2.36 -0.00
T	+0.25 1.57 -0.00	+0.25 1.98 -0.00

TABLE 19 - Minimum "GO" gauge for socket-outlet
(See A.2.1 and Fig.5)
All dimensions in millimetres

Reference to Fig. 5 (1)	for current rating 5A (2)	for current rating 15 A (3)
U	+0.00 13.83 -0.01	+0.00 17.53 -0.01
X	+0.00 13.79 -0.01	+0.00 18.16 -0.01
C	+0.00 7.09 -0.01	+0.00 8.74 -0.01
D	+0.00 5.10 -0.01	+0.00 7.09 -0.01
E	+0.00 16.92 -0.01	+0.00 21.67 -0.01
F	+0.00 21.67 -0.01	+0.00 29.62 -0.01
$D = \frac{X + C}{2}$	+0.00 10.44 -0.005	+0.00 13.44 -0.005
S	+0.25 1.98 -0.00	+0.25 2.36 -0.00
T	+0.25 1.57 -0.00	+0.25 1.98 -0.00

A.3 Withdrawal-pull gauges for effectiveness of contact
See Fig.6 and Table 20. These gauges are to test the withdrawal-pull specified in 9.2, and shall be used in individual socket-contacts of complete socket-outlets. They shall be applied, when used, after the maximum 'GO' gauge for socket-outlet. When gauging line and neutral socket-contacts, the shutter, if any, shall be kept clear of the gauge.

APPENDIX B
(See 9.9.1)
IMPACT TEST APPRATUS

B.1 DESCRIPTION OF THE APPARATUS

B.1.1 A typical impact appratus is shown in Fig. 7.

B.1.2 The pendulum consists of a steel tube with an external diameter 9.0 mm and a thickness of 0.5 mm. It is suspended in such a way that it swings only in a vertical plane. A striking element weighing 0.15 kg., is rigidly fixed to the lower end of pendulum with its axis 1.00 m below the axis of suspension. The striking element has a hemispherical face made of hardwood; polyamide or the like, of hardness of 80 to 100 Rockwell B scale.

B.1.3 The support for the sample shall be such that the sample can be so placed that the point of impact lies in a vertical plane through the suspension axis of the pendulum. The sample can be turned about an axis perpendicular to the support, be turned about a vertical axis and can be moved horizontally and vertically.

B.1.4 The sample shall be mounted on the support as in normal use. Cable entries shall be left open. Fixing screws of bases and covers are tightened to two thirds of torque specified in Table 16.

APPENDIX C
SAMPLING PROCEDURE

C.1 Lot

C.1.1 In any consignment, all plugs or socket-outlets, of same rating manufactured by the same factory during the same period shall be grouped to constitute a lot.

C.2 Criterion for conformity

C.2.1 In Table 21, N_1 is the size of the first sample. If the number of the failures found in this sample is less than or equal to C_1 the lot shall be considered to be conforming to this standard and accepted. If the number of failures is greater than or equal to C_1 the lot shall be rejected. If the number of failures is between C_1 and C_2 , a further sample of N_2 pieces shall be taken and subjected to all the tests.

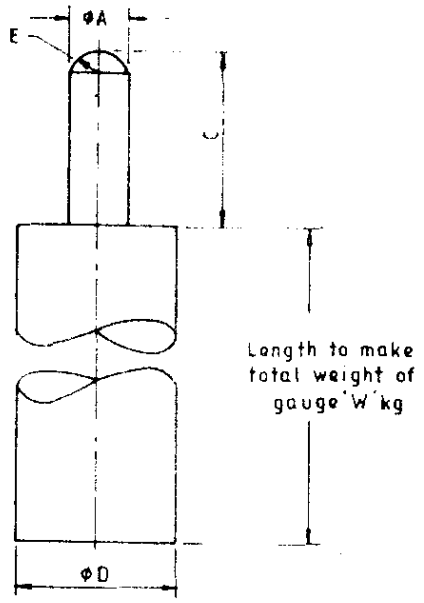


FIGURE 6 - Withdrawal pull gauge

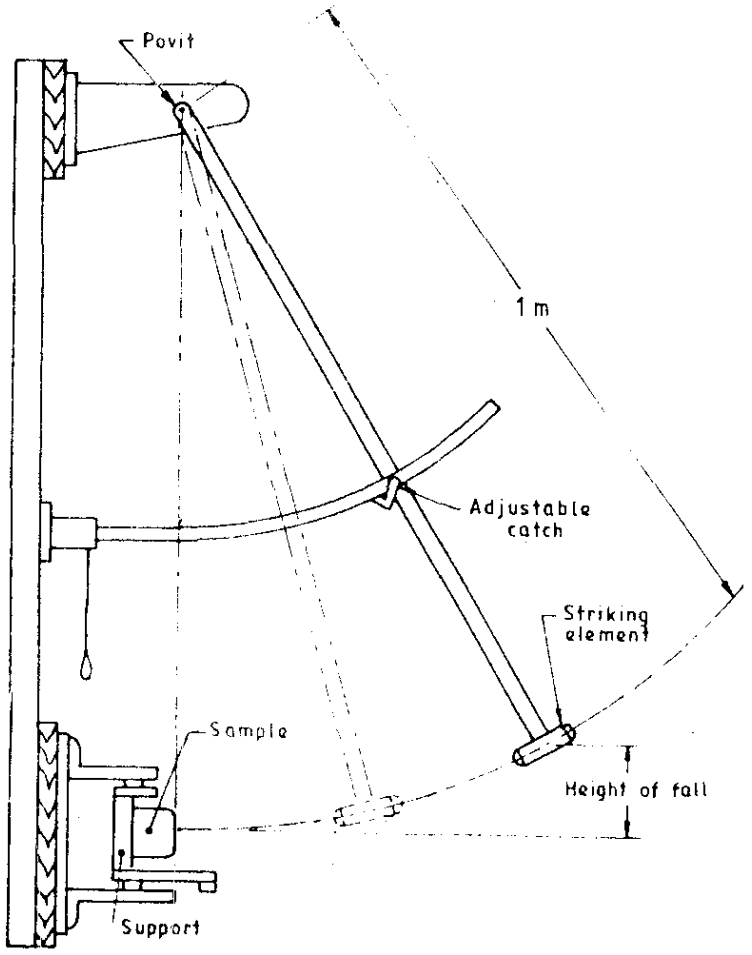


FIGURE 7 - Impact test apparatus

TABLE 20 - Withdrawal Pull Gauge
(See 9.2)

Current rating (1)	Contacts (2)	A mm (3)	C mm (4)	D mm (5)	E mm (6)	W mm (7)
5A	Current carrying	5.06	14.86	15.88	2.74	2.23
	Earthing	7.04	20.63	19.05	4.01	2.23
15A	Current carrying	7.04	18.62	19.05	4.01	3.34
	Earthing	8.69	28.58	22.53	5.06	3.34
Tolerance		+0.00	+0.03	-	+0.13	+0.17

A 5-ampere earthing-contact gauge may, if desired, be adopted to accomodate additional weight for gauging 15-ampere current-carrying contact.

NOTE

The radiused end of the gauge is to be part of a sphere.

C.2.1.1 If the number of failures in the two samples combined is less than C_2 , the lot shall be accepted; otherwise the lot shall be rejected.

TABLE 21 - Sampling plan

Lot size (1)	N_1 (2)	N_2 (3)	$N_1 + N_2$ (3)	C_1 (4)	C_2 (5)
51 to 100	10	20	30	0	3
101 to 200	13	26	39	0	5
201 to 300	20	40	60	1	5
301 to 500	25	50	75	1	6
501 to 800	35	70	105	2	7
801 to 1300	50	100	150	3	10
1301 and above	70	150	220	5	12

NOTE

The plan recommended in this table assures that lots with defectives of 4 per cent or less would be accepted most of the time, and lots with defectives 25 per cent and above would be rejected most of the time. The exact consumer's risk depends on the lot size and it would be minimum when the lot size is maximum.

Corrigendum approved on 1999-12-09. to SLS 948 : Part 1 : 1991

SRI LANKA STANDARD SPECIFICATION FOR THREE-PIN PLUGS SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

PART 1 : PLUGS, SOCKET-OUTLETS AND ADAPTORS

1. Page 1 (Cover page)

Delete the existing sub title

"PART 1 : THREE-PIN PLUGS, SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS"

and substitute with the following :

"PART 1 : PLUGS, SOCKET-OUTLETS AND ADAPTORS"

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AMENDMENT NO. 01 APPROVED ON 1998-06-11 TO SLS 948 : PART 1 : 1991

SRI LANKA STANDARD SPECIFICATION FOR THREE-PIN PLUGS, SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

1. Clause 9.6 current breaking capability

Delete the contents of Clause **9.6** and substitute with the following:

9.6.1 Plugs and socket-outlets shall be capable of breaking current 125 per cent of the rated current at a voltage not less than 110 per cent of the rated voltage, 10 times in succession, at intervals of 30 seconds, the plug being withdrawn from the socket-outlet by hand at the rate of approximately 15 cm per second. The earthing socket-contact and neutral –contact shall be connected together, and the socket-outlet shall be mounted as it is normally done in service.

9.6.2 After completion of the test, the voltage drop across the plug and socket-outlet shall not exceed 50 millivolts.

2. Clause 10.1 Type tests

Delete (f) of Clause **10.1** and substitute with the following:

(f) Current breaking capability **(9.6);**

Amendment No. 2 Approved on ... 1999-12-09
to SLS 948 : Part 1 : 1991

SRI LANKA STANDARD SPECIFICATION FOR THREE-PIN PLUGS SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

PART 1 : PLUGS, SOCKET-OUTLETS AND ADAPTORS

Page 12

Replace existing Table 9 with the following table.

TABLE 9 - Dimensions of pillar terminals

Current rating A	Nominal diameter of hole for conductor mm	Minimum thickness of wall where clamping screw passes through mm	ISO size of clamping screw
(1)	(2)	(3)	(4)
5	3.0	1.6	M2.5
15	4.0	3.2	M3.5

Page 15

Replace existing Table 12 with the following table

TABLE 12 - Dimensions of pillar terminals

Current rating A	Nominal diameter of hole for conductor mm	Minimum thickness of wall where clamping screw passes through mm	ISO size of clamping screw
(1)	(2)	(3)	(4)
5	3.6	1.6	M3
15	4.4	3.2	M3.5

AMENDMENT NO. 3 APPROVED ON 2006-11-29
TO SLS 948 : PART 1 : 1991

SRI LANKA STANDARD SPECIFICATION FOR THREE-PIN PLUGS, SOCKET-OUTLETS AND SOCKET-OUTLET ADAPTORS

PART 1 : THREE-PIN PLUGS SOCKET-OUTLETS AND SOCKET-OUTLET-ADAPTORS

Clause 2

Immediately after the title add the following:

IEC 60695 Fire hazard testing

Part 2: Test methods

Section 1 : Glow wire test and guidance

SLS 268 ISO metric screw threads

Clause 4

Delete paragraph 1 and substitute with the following:

Three pin plugs, socket-outlets and socket-outlet adaptors (accessories) shall be so designed and constructed that in normal use their performance is reliable and without danger to the user or to the surroundings. Accessories complying with the standard shall be capable of meeting all the relevant tests specified in this standard.

The gauges illustrated in Figure **3**, Figure **4**, Figure **5** and Figure **6** shall be considered to comply with the dimensional requirements if the results of the measured values are within the specified dimensions and the uncertainty of measurement at not less than 95 per cent confidence level does not exceed ±0.005 mm.

Clause 4.9

Delete the text given in 4.9 and substitute with the following:

4.9.1 All material shall comply with the requirements given in **4.9.2** to **4.9.8**, where relevant.

4.9.2 Parts made of insulating material which might be exposed to thermal stresses due to electric effects, and deterioration of which might impair the safety of the accessory, shall not be unduly affected by abnormal heat and fire.

Except for parts made of ceramic material and small components such as washers, compliance shall be checked by the test described in **4.9.4.**

4.9.3 Current carrying parts shall be made of brass, copper, phosphor-bronze or other material at least equivalent with regards to its conductivity, resistance to abrasion and resistance to corrosion

Compliance shall be checked by the tests described in **4.9.6**, **9.2** and **9.7**.

4.9.4 The glow-wire test shall be performed in accordance with Clause **4** to Clause **10** of **IEC 60695-2-1: 1980**, and at the test temperature given in Table **5**.

TABLE 5 – Application of glow-wire test

Part	Glow-wire temperature	
	Portable accessories °C	Fixed accessories °C
Parts necessary to retain current carrying parts in position	750 ± 10	850 ± 15
Parts not necessary to retain current carrying parts in position (although they may be in contact with them)	650 ± 10	650 ± 10

NOTES

1. *If the test specified is required to be made at more than one place on the same specimen, it is essential that care is taken to ensure that any deterioration caused by previous tests does not affect the result of the test to be made.*

2. *Small parts unlikely to be subjected to abnormal heat and the failure of which to pass these tests would not materially affect the safety of the accessory are not subjected to this glow wire test.*

The glow-wire test shall be applied to ensure that an electrically heated test wire under defined test conditions does not cause ignition of insulating parts or to ensure that a part of insulating material, which might be ignited by the heated test wire under defined conditions has a limited time to burn without spreading fire by flame or burning parts or droplets falling down from the tested part onto a pinewood board covered with tissue paper :

The test specimen shall be either :

a) a complete accessory; or,
b) if the test cannot be made on a complete accessory, a suitable part may be cut from one for the purpose of the test.

The test shall be made on one specimen. In case of doubt, the test shall be repeated on two further specimens.

The test shall be made applying the glow wire once.

The specimen shall be positioned during the test in the most unfavourable position of its intended use (with the surface tested in a vertical position). The tip of the glow-wire shall be applied to the specified surface of the specimen, taking into account the conditions of the intended use under which a heated or glowing element may come into contact with the specimen.

The specimen shall be regarded as having passed the glow-wire test if :

a) there is no visible flame and no sustained glowing; or
b) flames and glowing at the specimen extinguish within 30 s after the removal of the glow-wire.

There shall be no ignition of the tissue paper nor scorching of the board.

4.9.5 Current carrying parts of copper alloy containing less than 80 per cent of copper, and which are press formed or produced in a manner which could induce excessive internal stresses, shall be resistant to failure in use due to brittleness, when tested in accordance with **4.9.6.**

WARNING

Refer to the supplier's health and safety data sheets for the precautions which are to be taken for the safe use of mercurous nitrate, nitric acid, ammonium chloride, alkalis and organic solvents.

4.9.6 The test specimen shall be degreased in a suitable alkaline degreasing solution or organic solvent, then immersed in an aqueous solution of mercurous nitrate containing 10 g of $Hg_2(NO3)_2$ and 10 ml of HNO3 (relative density 1.42) per litre of solution for 1/2 h ± 60 s at a temperature of (20±5) °C.

After the treatment, the test specimen shall be washed in running water, and any excess mercury shall be wiped off.
The sample shall immediately be examined visually.

There shall be no cracks visible with normal or corrected vision without additional magnification.

4.9.7 Ferrous parts shall be adequately protected against rusting. Compliance is checked by the test of **4.9.8**.

4.9.8 The test specimen shall be degreased in a suitable alkaline degreasing solution or organic solvent

The specimens shall then be immersed for (600 ± 30) s in a 10 per cent solution of ammonium chloride in water, at a temperature of (20 ± 5) °C.

Without drying, but after shaking off any drops, the specimens shall be placed for (600 ± 30) s in a box containing air saturated with moisture, at a temperature of (20 ± 5) °C.

The specimens shall be dried for at least 10 min in a heating cabinet at a temperature (100 ± 5) °C.

There shall be no traces of rust visible on the surface

NOTES

a) *Traces of rust on sharp edges, and any yellowish film removable by rubbing are ignored.*

b) *For small helical springs and the like, and for parts exposed to abrasion, a layer of grease may provide sufficient protection against rusting. Such parts are only subjected to test if there is doubt about the effectiveness of the grease film, and the test should then be made without previous removal of the grease.*

AMD No. 348 : 2006

Clause 5.4

Delete the word “shall” in the last line of paragraph **2** of **5.4** and substitute with “may”

TABLE 9

Delete the title of the table and replace with the following:

TABLE 9a – Dimension of terminals of plug pins

Clause 5.4

Delete the last paragraph of this clause and substitute with the following :

When pillar terminals are used they shall either :

a) meet the requirements given in Table **9a**, and have cheese-headed clamping screws long enough under the head to extend to the far side of the conductor holes and with slightly rounded ends to minimize damage to conductors; or

b) meet the requirements given in table **9b**. Terminal screws used in making electrical connections shall have a root area not less than that of the appropriate screws in Table **9b** and shall withstand the minimum torques given in Table 9b. If ISO metric screws are used, they shall comply with **SLS 268**.

TABLE 9b – Plug terminal screws : size and torque

Current rating A	Minimum thickness of the wall where the clamping screw passes through mm	Minimum nominal diameter mm	Minimum torque rating Nm
5	1.6	3.0	0.5
15	3.2	3.5	0.8

The size of the conductor hole and the clamping screw shall be such that the clearance between sides of the major diameter of the clamping screw and the conductor hole does not exceed 0.4 mm.

TABLE 12

Delete the title of the table and replace with the following:

TABLE 12a – Dimensions of pillar terminals of socket outlets

Clause 6.2

Delete paragraph **3** and substitute with the following :

When pillar terminals are used they shall either :

a) meet the requirements given in Table **12a**. and a cheese-headed clamping screws long enough under the head to extend to the far side of the conductor holes and with slightly rounded ends to minimize damage to conductors; or

b) meet the requirements given in Table **12b**. Terminal screws shall have the minimum root areas and shall withstand the minimum torques given in Table **12b**. If ISO metric screws are used, they shall comply with **SLS 268**.

TABLE 12b –Socket-outlet terminal screws : size and torque

Current rating of socket-outlet A	Minimum nominal diameter and minimum torque rating of ISO metric screws							
	Single screw with head		Two screws with head		Single screw without head		Two screws without head	
	Size mm	Torque Nm	Size mm	Torque Nm	Size mm	Torque Nm	Size mm	Torque Nm
5	3.0	0.5	2.5	0.4	3.0	0.25	2.5	0.2
15	3.5	0.8	2.5	0.4	3.5	0.4	2.5	0.2

The size of the conductor hole and the clamping screw shall be such that the clearance between the sides of the major diameter of the clamping screw and the conductor hole does not exceed 0.6 mm."

Clause 6.5

Delete this clause entirely

Clause 6.6

Delete this clause entirely

TABLE 13

Delete this table entirely

Clause 8

Delete paragraph 1 and substitute with the following :

Plugs, socket outlet and socket-outlet adaptors shall be legibly and durably marked with the following information which shall not be placed on screws, removable washers or other removable parts, or on parts intended for separate sale.

The name or trade mark of the manufacturer or responsible vendor together with the country of manufacture.

In addition they shall be marked with the following :

Clause 8.1

Delete the text in **(c)** of **8. 1** and substitute with the following :

The terminal for the connection of line and neutral conductors shall be identified by their respective symbols L and N. The symbol used for the protective terminal shall be either
(which is preferred) or which may be accompanied by the letter E.

Clause 8.2

Delete **(a)** and **(b)** of **8.2** and substitute with the following :

a) The rated current in amperes
b) The rated voltage, i.e. 250 Volts
c) Nature of supply, i.e. ~ (preferred) or a.c.
d) The terminals for the connection of line and neutral conductors shall be identified by their respective symbols L and N. The symbol used for the protective terminal shall be either (which is preferred) or which may be accompanied by the letter E.

NOTE

For the marking of the rated current and rated voltage of the socket outlet, figures may be used alone, the figures for the current rating being placed before or above that of the rated voltage and separated by a line.

If a symbol for nature of supply is used, it shall be placed next to the marking for rated current and rated voltage. Examples are as follows :

15A 250 V a.c. or 15/250 ~ or $\frac{15}{250}$ ~

Clause 9.2

Delete "individual socket" in line **4** of **9.2 (b)** and substitute with "individual current carrying socket"

Delete the Note immediately after **9.2 (b)**

Add the following paragraph at the end of **9.2 (b)**

The effectiveness of contact for metal components connected to an earth terminal of a socket–outlet shall be checked by the following test.

A current of (25 ± 0.75) A, derived from an a.c. source, having a no-load voltage not exceeding 12 V, is passed for a period of time in between (60 – 0) s and (60 + 5) s, and between the earthing terminal and plug pin inserted in the earthing socket contact.

The resistance between the terminal and any other part shall not exceed 0.05 Ω

Clause 9.6

Delete the entire clause and substitute with the following :

The breaking capacity of socket contacts shall be adequate.

Socket-outlets or adaptors shall be connected and mounted as in normal use

The socket contacts shall be capable of making and breaking a current 30 per cent in excess of their current rating, when tested in a substantially non-inductive a.c. circuit at (275 ± 5) V. The plug and socket outlet shall break the circuit 10 times in succession at intervals of approximately 30 seconds, a plug of the corresponding rating being withdrawn from the socket outlet at a speed of approximately 150 mm per second immediately after insertion

NOTE

For the purpose of this test, the fuse link, if any, may be replaced by a link of negligible impedance

After the test, the socket-outlet shall be capable of satisfying the subsequent tests detailed in **9.2** and **9.7**.

APPENDIX A

Delete **A.1 GO GAUGES FOR PLUGS AND SOCKET OUTLETS**

Number the text of the existing first paragraph of Appendix **A**, as **A.1**.

Insert the following as new paragraph 1 immediately after the title **GAUGES** :

The Gauges illustrated in Figure **3**, Figure **4**, Figure **5** and Figure **6** shall be considered to comply with the dimensional requirements if the results of the measured values are within the specified dimensions and uncertainty of measurement at not less than 95 per cent confidence level does not exceed 0.005 mm.

Amendment No. 4 Approved on 2013-03-21 to SLS 948 : Part 1 : 1991

SRI LANKA STANDARD SPECIFICATION FOR THREE – PIN PLUGS SOCKET-OUTLETS AND SOCKET- OUTLET ADAPTORS

Part 1 : Three pin plugs Socket outlets and Socket outlet adaptors

Clause 8

Replace the Second paragraph as follows:

The name or trade mark of the manufacturer or responsible vendor.

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