Specification for

200 A 1100 V flameproof restrained and bolted plugs and sockets for use in coal mines

Confirmed
January 2011

UDC 744.42:62:003.63

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Mining Requisites Standards Policy Committee (MRE/-) to Technical Committee MRE/14, upon which the following bodies were represented:

Association of British Mining Equipment Companies
British Cable Makers' Confederation
British Coal Corporation
Council for Electrical Equipment for Flammable Atmospheres (BEAMA Ltd.)
Health and Safety Executive

This British Standard, having been prepared under the direction of the Mining Requisites Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on
15 February 1995

First published July 1979
Second edition February 1995

The following BSI references relate to the work on this standard:
Committee reference MRE/14
Draft for comment 90/74123 DC

ISBN 0 580 23191 7

Amendments issued since publication

Amd. No.	Date	Comments

Contents

Foreword

This British Standard has been prepared under the direction of the Mining Requisites Standards Policy Committee. It supersedes BS 5620:1979 which is withdrawn.

BS 5620:1979 specified requirements for 650 V single voltage units and for 650/1 100 V dual voltage units. This revision also specifies requirements for 1 100 V single voltage units. Due cognizance is taken of the relevant requirements of BS 4683-2, BS 5501-1 and BS 5501-5.

The standard continues to ensure interchangeability of plugs in sockets of different makes and to standardize the fixing dimensions of sockets.

Whilst specifying some electrical and mechanical requirements, the standard does not purport to provide a fully detailed design.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations. Attention is drawn to the Health and Safety at Work etc. Act 1974, the Mines and Quarries Act 1954, the Regulations made under these Acts, and also any other appropriate statutory requirements or bye-laws. These place responsibility for complying with certain specific safety requirements on the manufacturer and the user. The addresses of the recognized certification authorities in the UK for Group I (coal mining) apparatus for flameproof safety purposes are as follows:

Health and Safety Executive
Mining Equipment Certification Service
Harpur Hill
Buxton
Derbyshire
SK17 9JN

SIRA Certification Service
Saighton Lane
Saighton
Chester CH3 6EG

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 16, an inside back cover 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

This British Standard specifies the constructional and test requirements for 200 A flameproof restrained and bolted plugs, sockets and plug coupling units suitable for single voltages of 650 V and 1 100 V and dual voltage of 650/1 100 V. They are primarily intended for use with mining apparatus which is connected to its power supply by means of a flexible cable.

Three types are covered and designated as:

— type 1S: 200 A, 650 V single voltage, restrained and bolted;

— type 1D: 200 A, 650/1 100 V dual voltage, restrained and bolted;

— type 2: 200 A, 1 100 V single voltage, restrained only.

Type 1 and 2 configurations are not interchangeable.

The plugs, sockets and plug coupling units incorporate three power contacts, a pilot contact for electrical interlocking and a scraping earth contact.

The dual voltage plugs and sockets are intended for use either on a 650 V or 1 100 V supply, the appropriate arrangements including selection of voltage by orientation of insulator and pins to ensure non-interchangeability for other than the appropriate voltage.

In addition to the definitive requirements, this standard also requires the items detailed in clause **3** to be documented. For compliance with this standard, both the definitive requirements and the documented items have to be satisfied.

NOTE The figures in this standard show only those features and dimensions essential for function interchangeability.

2 References

2.1 Normative references

This British Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are made at the appropriate places in the text and the cited publications are listed on the inside back cover. For dated references, only the edition cited applies: any subsequent amendments to or revisions of the cited publication apply to this British Standard only when incorporated in the reference by amendment or revision. For undated references, the latest edition of the cited publication applies, together with any amendments.

2.2 Informative references

This standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Information and requirements to be agreed and to be documented

The following information to be supplied by the purchaser shall be fully documented. Both the definitive requirements specified throughout the standard and the following documented items shall be satisfied before a claim of compliance with the standard can be made and verified.

a) The number and date of this British Standard, i.e. BS 5620:1994.

b) Type of plugs and/or sockets required, i.e. restrained or bolted types 1S, 1D or 2 and, for sockets, whether of the fixed or coupler variety.

c) Nominal size of cable conductors (in mm^2).

d) Type of cable, if made to a British Standard or other recognized standard specification, the appropriate standard number; for non-standard cables, complete details of the cable construction and dimensions should be given.

4 Definitions

For the purposes of this British Standard the following definitions apply.

4.1
plug and socket

a device consisting of two portions having metallic contacts and arranged to engage with each other, so forming a ready means of connecting or disconnecting current-using apparatus to or from the source of electrical supply

4.2
flameproof plug and socket

a plug and socket which, when its parts are properly assembled together with the cable attached, conforms to the relevant flameproof requirements

4.3
restrained plug and socket

a plug and socket in which the two portions are engaged, retained and disengaged by means of a manually operated device

4.4
bolted plug and socket

a plug and socket designed to be held together by two or more bolts or screws, or studs and nuts, in such a way that the plug and socket cannot be disengaged without the use of a tool

4.5
plug coupling unit

an assembly incorporating two socket entries providing for the insertion and engagement of plugs

4.6
plug

that portion of a plug and socket having contacts consisting of tubes and which is attached to a flexible cable

4.7
socket

that portion of a plug and socket having contacts consisting of pins and which is designed for the insertion and engagement of a plug

4.8
scraping earthing contact

a device to ensure electrical continuity of the earthing connection between a plug and socket

4.9
cable gland

a device designed to secure the end of a cable, by means appropriate to the type of cable, and which may include provision for making electrical connection to any screen or metallic covering

4.10
closer cap

a cap primarily intended for blanking off motor sockets (see note to clause **11**)

5 Metallic components

The material for external components and enclosures shall be one of the following:

a) a corrosion resistant ferrous alloy; or

b) a non-ferrous metal, other than aluminium, magnesium, or titanium; or

c) an alloy containing the metals aluminium, magnesium and titanium, either singly or in combination, providing that the total content of these constituents does not exceed 15 % by mass of the alloy and the combined content of magnesium and titanium does not exceed 6 % by mass of the alloy.

NOTE These limits have been imposed to avoid the hazards of incendiary sparking due to friction between rusted steel or iron and the metals in question.

6 Insulation

6.1 Insulation materials

The material used for insulating the contact tubes and pins shall conform to Table 1.

6.2 Insulators

Insulators shall be free from voids, cracks and deleterious inclusions and shall be capable of withstanding the test specified in **16.8**.

6.3 Additional requirements for type 1D and type 2 plugs and sockets

The insulator, whether for plug or for socket, shall incorporate a metal separator between each of the contact housings. The separator shall be of cruciform section moulded integrally with the insulator such that the fins are located midway between the respective contact housings.

The separator shall extend as near as is practicable to the ends of the insulator, and the radial length of each fin shall be such that the radial distance between the tip of the fin and the outer surface of the insulator is not greater than 13 mm.

There shall be visible indication at the front of the insulator that a separator has been incorporated. Part of the separator shall be exposed at the front end for electrical test.

The separator shall be bonded to the case of the plug or socket.

Table 1 — Properties of electrical insulating materials

Property	Value	Test method
Electric strength (90 °C)	8 kV/mm (min.)	BS 2782:Method 220 or 221[a]
Volume resistivity	1×10^{13} Ω cm (min.)	BS 2782:Method 230A[b]
Tensile strength	34.5 N/mm^2 (min.)	BS 2782:Method 320D
Flexural strength	60 N/mm^2 (min.)	BS 2782:Method 335A
Impact strength	10 kJ/m^2 (min.)	BS 2782:Method 359
Water absorption[c]	50 mg (max.)	BS 2782:Method 430A
Comparative tracking index[c]	CTI 400 (min.)	BS 5901
Oxygen index[d]	28 % (min.)	BS 2782:Method 141

NOTE 1 N/mm^2 = 1 MPa.

[a] Also numbered BS 903-C4.
[b] Also numbered BS 903-C2.
[c] Preparatory to any testing for these properties, remove not less than 0.5 mm by machining from all the surfaces of the test specimen and then smoothly finish.
[d] This is a minimum requirement. Insulation forming a part of the flameproof path will additionally need to satisfy the requirements of BS 5501-5 with respect to flammability.

7 Contacts

Each plug and socket shall be provided with three power contacts and one pilot contact (contact tubes or contact pins, as may be appropriate) arranged for the appropriate voltage mode as in Figure 1.

8 Terminals

8.1 Power and pilot

Terminals of power contact tubes and pins shall be capable of being bored to a diameter from 6 mm up to 13 mm. Unless otherwise specified by the purchaser they shall be supplied bored to a diameter of 6 mm. Terminals of pilot contact tubes and pins shall be capable of being bored to a diameter from 4 mm up to 10 mm. Unless otherwise specified by the purchaser they shall be supplied bored to a diameter of 4 mm. Terminals shall be integral with contact tubes and contact pins; this does not preclude the use of dissimilar metals for contacts and terminals.

Where screws are used as a clamping device on a terminal, not less than two such screws shall be provided and they shall be flat point hexagon socket set screws conforming to BS 4168-2.

Each plug terminal shall provide for the entry of the conductor to a depth of at least 25 mm. Each socket terminal shall provide for the entry of the conductor to a depth of at least 18 mm.

8.2 Earthing

Earthing terminals shall be provided in the plugs and shall be capable of securely accommodating conductors of 6 mm^2 to 50 mm^2 cross-sectional area. Additional terminals shall be provided to accommodate securely any metallic cable screens.

9 Plug

9.1 Case

The general dimensions of the case of the type 1S and 1D plug shall be as given in Figure 2 and Figure 3 and for the type 2 as given in Figure 4. The engaging portion of the case of the plug which protects the contact tubes shall be of metal having a tensile strength of not less than 450 N/mm^2 when determined in accordance with the test methods given in BS EN 10002-1.

The remaining part of the case shall be of metal having a tensile strength of not less than 225 N/mm^2.

The external surface of the engaging portion of the plug casing shall form part of a scraping earthing contact and shall be electrically continuous with the remainder of the plug casing (see **10.3**).

9.2 Contact tubes (power and pilot)

The dimensions of the tubes shall be as shown in Figure 2 or Figure 3 as appropriate, for types 1S and 1D and in Figure 4 for type 2. When assembled they shall be self-adjusting to the extent necessary to accommodate at least the permitted tolerances on position. The tubes shall be of any suitable metal having both a hardness of not less than 70 HB when determined in accordance with BS 240, and a volume resistivity of not more than 11 $\mu\Omega$ cm at a temperature of 20 °C.

Contact tubes shall make good electrical contact with the pins when the plug is inserted in the socket. The effectiveness of contact shall be proved by conformity to the requirements of **16.1** to **16.4** and **16.6**.

9.3 Cable glands

A cable gland shall be provided, suitable for the size and type of cable to be accommodated, up to a maximum overall diameter of 60 mm. Cable glands shall be of a compression type and shall be provided with means:

a) to satisfy the relevant requirements of BS 5501-1 and BS 5501-5 for cable entries for Group I apparatus;

b) to secure the cable; and

c) to seal the assembly against ingress of moisture.

Where a pliable wire armoured cable is to be accommodated in the gland, a device shall be provided to clamp the armour wires in such a way that a good electrical connection is made to the plug casing.

NOTE Types of cable normally employed in coal mines are:
1) flexible cable with individually screened power cores;
2) flexible cable with collectively screened cores;
3) pliable armoured flexible cable with or without individually screened power cores.

10 Socket

NOTE When associated with a circuit breaker, switch or isolator, the socket, may be provided with a mechanical interlock to ensure that the plug cannot be inserted or withdrawn without first opening such circuit breaker, switch or isolator. Any such interlocking device should be so arranged that interchangeability of plugs of different makes is not prevented.

10.1 Case

The case of the socket shall be of metal having a tensile strength of not less than 225 N/mm^2 when determined in accordance with the test methods given in BS EN 10002-1 and shall have the general dimensions given in Figure 5 and Figure 6 for types 1S and 1D and in Figure 7 for type 2.

10.2 Contact pins (power and pilot)

Contact pins shall be solid and of any suitable metal having both a hardness of not less than 70 HB when determined in accordance with BS 240, and a volume resistivity of not more than 11 μΩ cm at a temperature of 20 °C.

Contact pins shall conform to the dimensions given in Figure 5 and Figure 6 for types 1S and 1D and in Figure 7 for type 2.

10.3 Scraping earthing contact

The earth continuity circuit between a plug and socket shall be made by contact between the external surface of the engaging portion of the plug casing and the internal surface of scraping contacts mechanically attached and electrically connected to the socket casing.

The effectiveness of contact shall be proved by conformity to **16.9**.

The design shall be such that earthing contact shall be made before the power contact pins and tubes come into contact, and shall not be broken until the contact pins and tubes have separated.

10.4 Padlocking facilities for restrained socket

The socket shall be provided with two (optionally three) 9 mm diameter holes to enable a padlock to be fitted when required, as shown in Figure 5 for types 1S and 1D and in Figure 7 for type 2.

11 Closer caps for sockets

Closer caps shall be of metal having a tensile strength of not less than 225 N/mm^2 when determined in accordance with the test methods given in BS EN 10002-1 and shall display a warning note. Caps shall conform to dimensions given in Figure 8 for restrained types 1S and 1D, in Figure 9 for bolted types 1S and 1D and in Figure 10 for type 2.

NOTE Closer caps are intended for use on motor sockets. They do not have clearances suitable for blanking off sockets on switchgear where socket contact pins are energized at mains voltage.

12 Plug and socket assembly

12.1 Creepage distances

When fully engaged, the creepage distance at the interface of plug and socket between any power contact and earth shall be not less than 19 mm for type 1 and 32 mm for type 2.

The creepage distance between any power contact terminal and earth, whether in plug or socket, shall be not less than 24 mm for type 1 and 32 mm for type 2.

Where insulation of the contact pins is required to maintain these creepages, the dimensions of the insulation shall conform to Figure 5 and Figure 6.

12.2 Interchangeability of insulators

12.2.1 *Type 1S*

The design of plug and socket shall be such as to allow the insulator to be fitted only in the 650 V mode (see Figure 1) and to ensure non-interchangeability of insulators with those specified in **12.2.2**.

12.2.2 *Type 1D*

The design of the plug and socket shall be such as to allow each insulator to be orientated in either the 650 V or 1 100 V mode, i.e. with two keyways.

12.3 Retaining arrangements

12.3.1 *Restrained type*

Restrained sockets shall incorporate a device which provides means for engaging, retaining and disengaging the two portions by locating a lug in a corresponding slot in the plug and moving the plug axially relative to the socket. These operations shall be capable of being accomplished solely be means of this device which shall operate positively on the plug.

The overall dimensions of the device shall be such that no part extends beyond the profile line shown in Figure 5, or Figure 7 as applicable.

The actual details, construction and dimensions of the operating device do not form part of this specification. The features standardized embrace the lug and the axial movement, the dimensions of which shall conform to Figure 5, or Figure 7 as applicable.

NOTE The device may be in the form of a screw with a square head wing-nut, or it may be a rack, or combination lever, or similar device.

12.3.2 *Bolted type*

Both plug and socket for types 1S and 1D shall be provided with an external flange, the plug portion having clearance holes, and the socket portion tapped holes suitable for taking securing screws. The external flange of the plug portion shall be provided with means for shrouding the heads of the securing screws. The dimensions of the coupling screws and the dimensions and positions of the holes and means of shrouding are shown in Figure 3 and Figure 6.

13 Plug coupling unit

Socket entries of plug coupling units shall be designed to accept plugs conforming to this standard and shall themselves meet the requirements of this standard.

14 Dimensions

Dimensions shall conform to those given in Figure 2 to Figure 10, as applicable.

15 Flameproof enclosure

Plugs, sockets and closer caps shall be capable of conforming to the requirements for flameproof enclosure Group I apparatus in accordance with BS 5501-5.

NOTE 1 The dimensions shown in Figure 3, Figure 5, Figure 6, Figure 7 and Figure 9 meet the requirements of BS 5501-5 for Group I apparatus.

NOTE 2 Existing policy within the Mining Equipment Certification Service is to certify plugs and sockets as "Ex" components conforming to BS 5501-1 and BS 5501-5. The specification in the annex of each component certificate is so worded as to permit the plug or socket (either restrained or bolted types as the case may be) to be used in combination with any restrained or bolted plug or socket as appropriate, which conforms to the dimensional requirements for flamepaths and fixing centres of BS 5620 and has been certified by the Mining Equipment Certification Service for Group I. In this way BS 5620 plugs and sockets certified to BS 5501 or BS 4683 or BS 229 can be intermixed without restriction in UK mines.

16 Type tests

16.1 General

Type tests to establish that the design conforms to this standard shall be carried out on a representative plug and socket.

16.2 First temperature rise test

16.2.1 *Requirement*

When tested as described in **16.2.2**:

a) the highest measured temperature within the plug and socket shall not exceed the temperature reached by the cable conductor by more than 10 K;

b) the highest measured temperature rise within the plug and socket shall not be greater than 45 K.

16.2.2 *Procedure*

16.2.2.1 Conduct the test under draught-free conditions.

16.2.2.2 Mount the socket on the outside of a non-metallic enclosure, the volume of which shall not exceed 0.05 m^3. Attach an insulated flexible conductor of 50 mm^2 cross-sectional area and having a length of between 0.5 m and 1 m to each power terminal of the socket.

Attach the plug to a 2 m length of flexible cable having three power conductors each of 70 mm^2 cross-sectional area. Where screws are employed, the conductors shall be secured in their respective terminals solely by means of such screws.

16.2.2.3 Place seven temperature sensing devices, such as thermocouples, in positions as follows to determine the temperature rise within the plug and socket assembly.

a) Attach one device to the terminal of each power contact tube, adjacent to the flexible cable conductor.

b) Attach one device to the terminal of each power contact pin, adjacent to the conductor.

c) Insert one device into one of the power conductors in the flexible cable at a point approximately 1 m from the cable gland, the device entering through a small hole bored in the cable sheath and insulation.

16.2.2.4 With the plug and socket engaged, pass an alternating current of 200 A, 40 Hz to 62 Hz through the cable, plug and socket, and flexible tails; record the temperature indicated by each sensing device at regular timed intervals.

16.2.2.5 Continue the test until the temperature of the plug and socket has attained a stability within 1 K/h.

16.3 Mechanical endurance test

16.3.1 *Requirement*

When tested as described in **16.3.2** the plug and socket shall withstand 500 insertions and withdrawals without displaying deterioration.

16.3.2 *Procedure*

Immediately on completion of the first temperature rise test (see **16.2**) secure the assembly to a test rig that enables the plug to be both rapidly inserted into, and withdrawn from, the socket for 500 operations. The assembly under test shall be clean, dry and free from any lubricant.

NOTE For this test either the socket or plug may form the moving portion and the trailing cables may be suitably supported to prevent flexing; the retaining device may be omitted.

16.4 Second temperature rise test

16.4.1 *Requirement*

When tested as described in **16.4.2**, the plug and socket shall conform to **16.2.1**.

16.4.2 *Procedure*

On completion of the test described in **16.3**, insert the plug into the socket and conduct a second temperature rise test as given in **16.2.2**.

16.5 High voltage tests

16.5.1 *Requirement*

When tested as described in **16.5.2** a plug and socket assembly shall withstand without breakdown, for a period of not less than 15 min, the following test voltages:

a) 3 kV between each power contact assembly and the metallic casing;

b) 0.5 kV between the pilot contact assembly and the metallic casing.

The test voltages shall be a.c. of approximate sine wave form and of any frequency between 40 Hz and 62 Hz.

16.5.2 *Procedure*

Prepare a plug and socket assembly as in **16.2.2.2**. Commence the test at a voltage of about one-third of the appropriate test voltage and increase to the full test voltage as rapidly as is consistent with its value being indicated. Maintain the test voltage for not less than 15 min.

16.6 Rated short time current test

16.6.1 *Requirement*

When tested as described in **16.6.2**, an assembled plug and socket shall withstand a current of 8 kA r.m.s. symmetrical for 0.2 s with an asymmetrical peak value of not less than 16 kA. The plug and socket assembly shall be deemed to withstand the test if there are no visible signs of disturbance. If any burning is visible the first temperature rise test (**16.2**) shall be repeated without reconditioning.

NOTE Light welding of the contacts is permitted, provided the plug can be withdrawn by hand.

16.6.2 *Procedure*

Prepare a plug and socket assembly as in **16.2.2.2**. With the plug and socket engaged pass the current through the assembly at any convenient voltage.

16.7 Cable gland testing

Cable entries shall be tested in accordance with BS 5501-1 and BS 5501-5.

16.8 Insulator heat test

16.8.1 *Requirement*

When tested as described in **16.8.2**, visual examination of the insulator shall not reveal any form of surface cracking or scaling. The insulator dimensions shall not depart from the original dimensions by more than 0.2 %.

16.8.2 *Procedure*

Heat an insulator to 120 °C ± 5 °C and maintain that temperature for a period of 24 h, after which allow it to cool to ambient temperature.

16.9 Scraping earthing contact test

16.9.1 *Requirement*

When tested as described in **16.9.2**, the axial force necessary to withdraw a mandrel from a scraping earthing contact (when assembled in the casing) shall be not less than 45 N.

16.9.2 *Procedure*

Use a mandrel of plain carbon steel, clean, dry, smooth, cylindrical and having a surface texture not exceeding a roughness value of 1.6 μm in accordance with BS 1134-1, and having the dimensions given in Table 2. Measure the force necessary to withdraw the mandrel from a scraping earthing contact when assembled in the casing.

Table 2 — Test mandrel dimensions

Dimensions in millimetres

Socket type	Diameter of mandrel		Depth of engagement
	max.	min.	min.
1S and 1D	71.5	71.4	25
2	81.33	81.23	25

16.10 Contact tube conditioning test

16.10.1 *Requirement*

When a contact tube, complete with the means of springing, is conditioned and tested for contact pressure as described in **16.10.2**, the axial force necessary to withdraw a test pin shall conform to Table 3.

16.10.2 *Procedure*

Insert a contact tube into a sleeve which has an internal diameter equal to the upper limit of the tube insulator bore. Fully expand the tube by the insertion of a suitably tapered pin. Insert a hardened and ground steel test pin conforming to the diametral sizes given in Table 3 and check that the axial force necessary for its withdrawal conforms to Table 3.

17 Routine tests

17.1 Sampling procedure

Routine sampling tests as specified in **17.2**, **17.3** and **17.4** shall be made on a percentage basis as follows.

Twenty per cent (20 %) of each of the first five batches shall be tested. If any of the twenty per cent (20 %) of each of the first five batches being tested fail to conform to **17.2**, **17.3** or **17.4** then all of the relevant batch shall be tested. If the rejection rate of the 20 % of each of the first five batches being tested is zero, then it is permitted to reduce the test percentage to 2 % of each batch.

Table 3 — Contact tube conditioning data

Linear dimensions in millimetres

Pin type	Diameter of test pin		Depth engagement		Withdrawal force
	max.	min.	max.	min.	N min.
Power pin	12.64	12.62	26	25	45
Pilot pin	9.47	9.45	13	9.5	20

If any of the 2 % of a batch being tested fail to conform to **17.2**, **17.3** or **17.4** then all the relevant batch shall be tested and the 20 % test percentage shall then be reinstated. When a rejection rate of zero for five batches has been achieved, then it is permitted to reinstate the reduced test percentage of 2 %.

17.2 Electric strength (high voltage) test

17.2.1 ***Requirement***

When tested as described in **17.2.2** the insulation of plugs and sockets, complete with the metal separator connected to the metal case, shall withstand an electric strength test for a minimum period of 5 s without breakdown occurring.

17.2.2 ***Procedure***

Apply an alternating test voltage of any frequency between 50 Hz and 62 Hz and of approximately sine wave form as follows:

a) 4 kV between each power contact, and the metallic casing;

b) 0.5 kV between the pilot contact, and the metallic casing.

17.3 Scraping earthing contact test

17.3.1 ***Requirement***

Scraping earthing contacts shall be tested as described in **17.3.2** and shall conform to **16.9.1**.

17.3.2 ***Procedure***

Test scraping earth contacts in accordance with **17.9.2**.

17.4 Contact tubes test

17.4.1 ***Requirement***

Contact tubes shall be tested as described in **17.4.2** and shall conform to **16.10.1**.

17.4.2 ***Procedure***

Test contact tubes in accordance with **16.10.2**.

18 Marking

All plugs and sockets purporting to conform to the requirements of this standard shall be legibly and permanently marked with the following particulars:

a) the registered trade name or trademark of the manufacturer, or of the manufacturer's agent;

b) manufacturer's type designation;

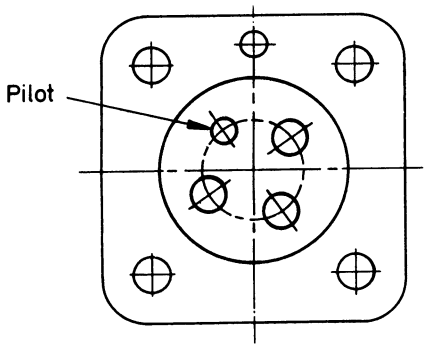
c) voltage and current rating;

d) the number and date[1)] of this British Standard, i.e. BS 5620:1994, with the type number, i.e. 1S, 1D or 2;

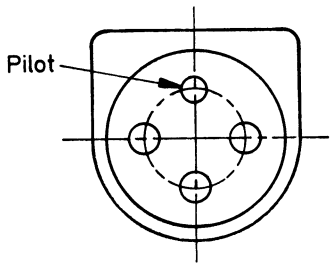
e) the warning, "Do not open when energized", on the plug of a bolted type of plug and socket assembly.

NOTE When a certificate has been obtained any additional marking requirements will be specified by the testing authority concerned.

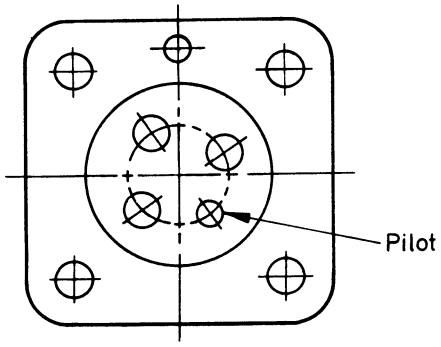
[1)] Marking BS 5620:1994 on or in relation to a product represents a manufacturer's declaration of conformity, i.e. a claim by or on behalf of the manufacturer that the product meets the requirements of the standard. The accuracy of the claim is solely the claimant's responsibility. Such a declaration is not to be confused with third party certification of conformity, which may also be desirable.



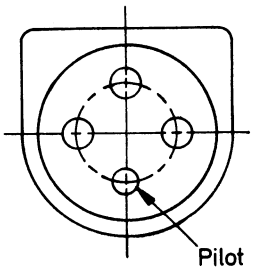
1100 V mode



1100 V mode



650 V mode
Type 1. Bolted plug



650 V mode
Type 1. Restrained plug

Figure 1 — Contact dispositions for alternative voltage modes

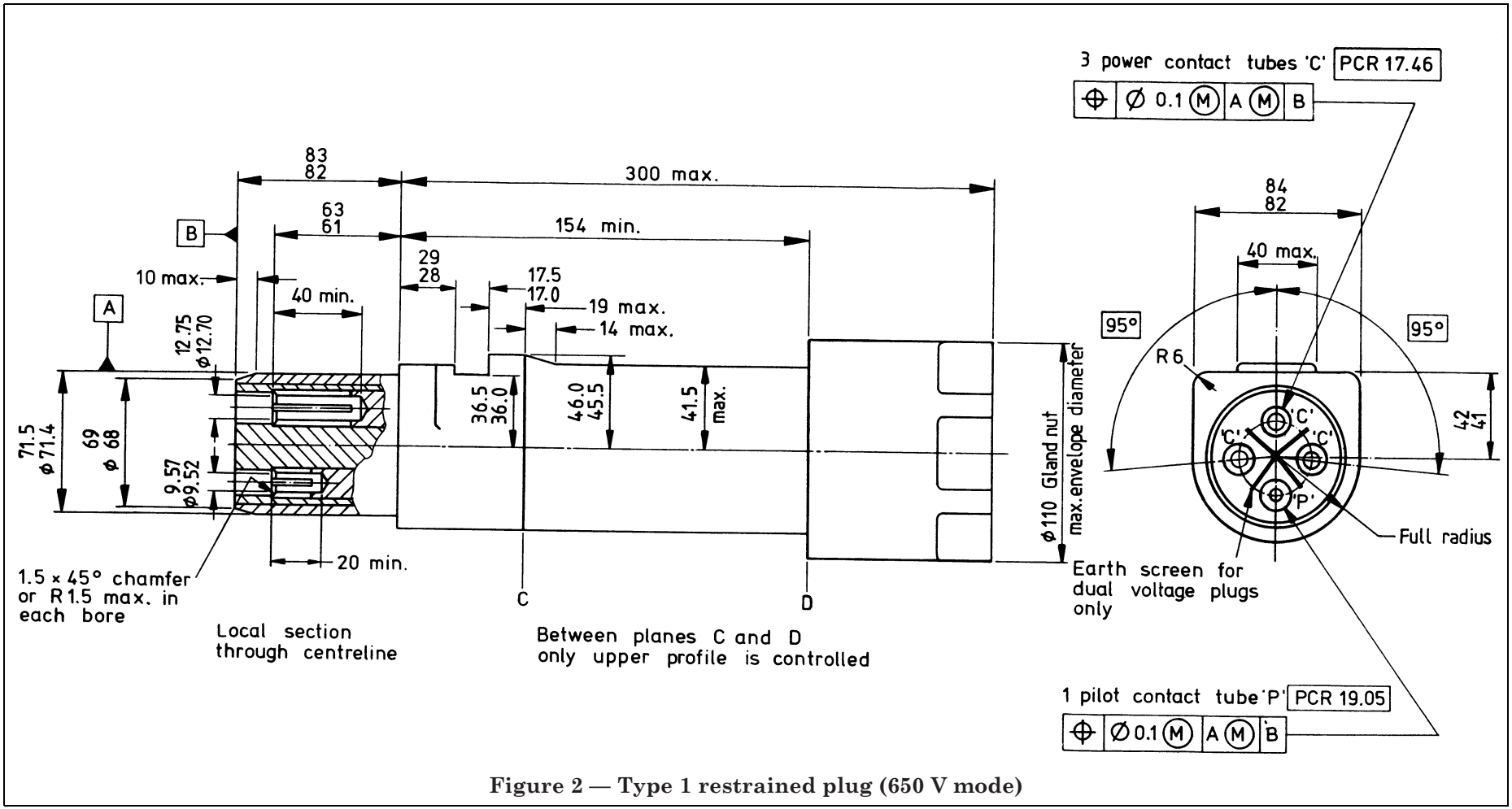


Figure 2 — Type 1 restrained plug (650 V mode)

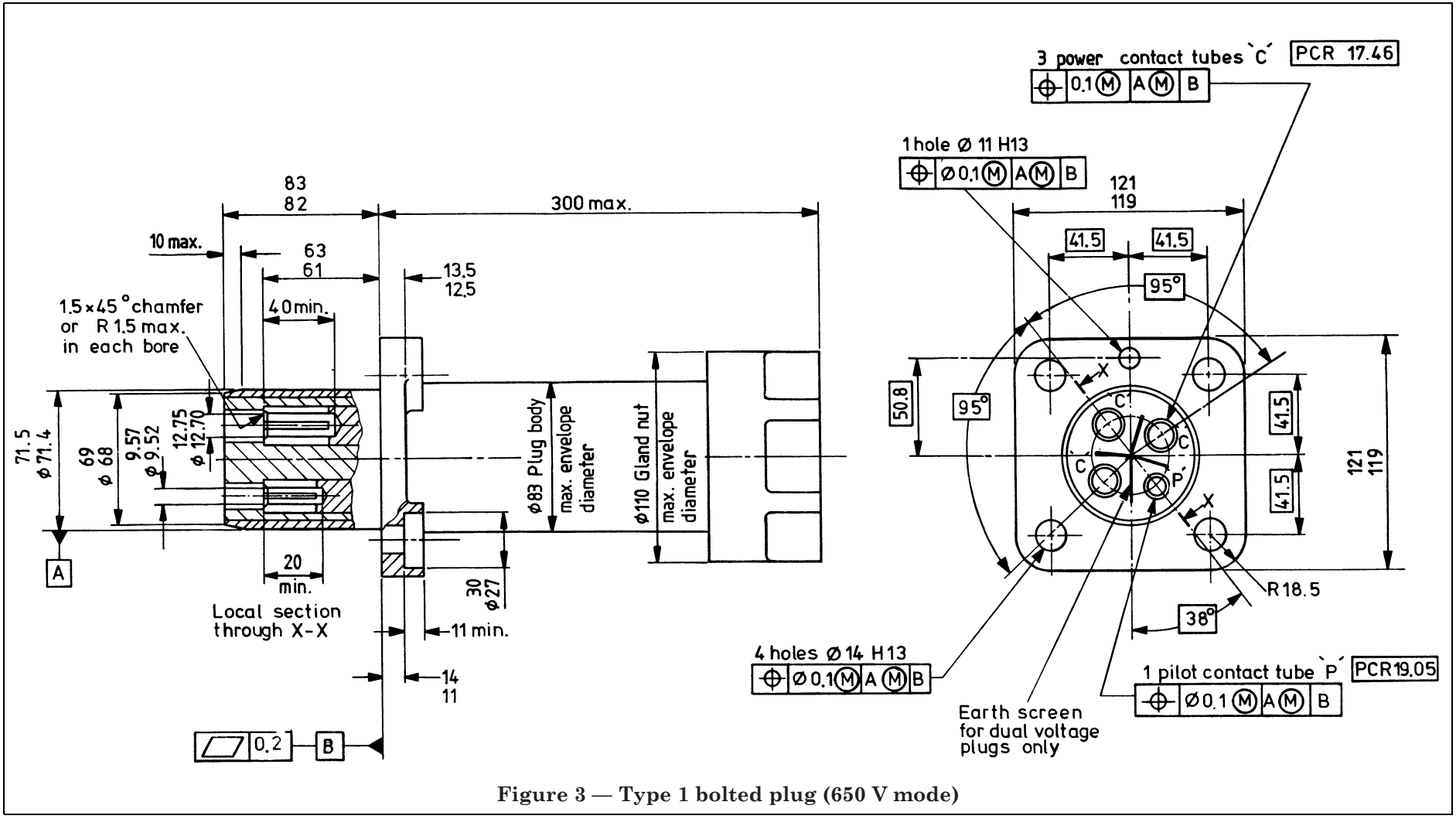


Figure 3 — Type 1 bolted plug (650 V mode)

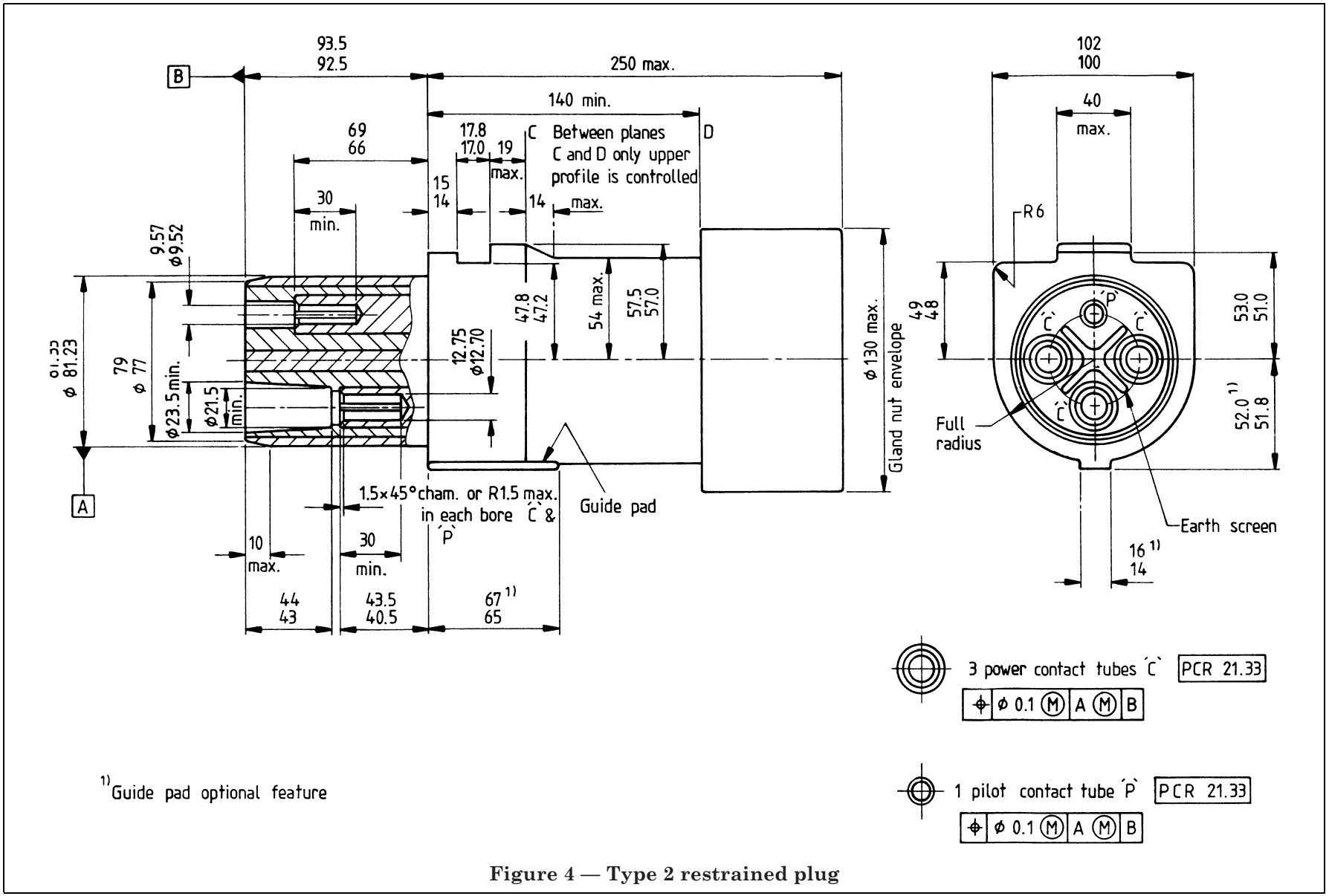


Figure 4 — Type 2 restrained plug

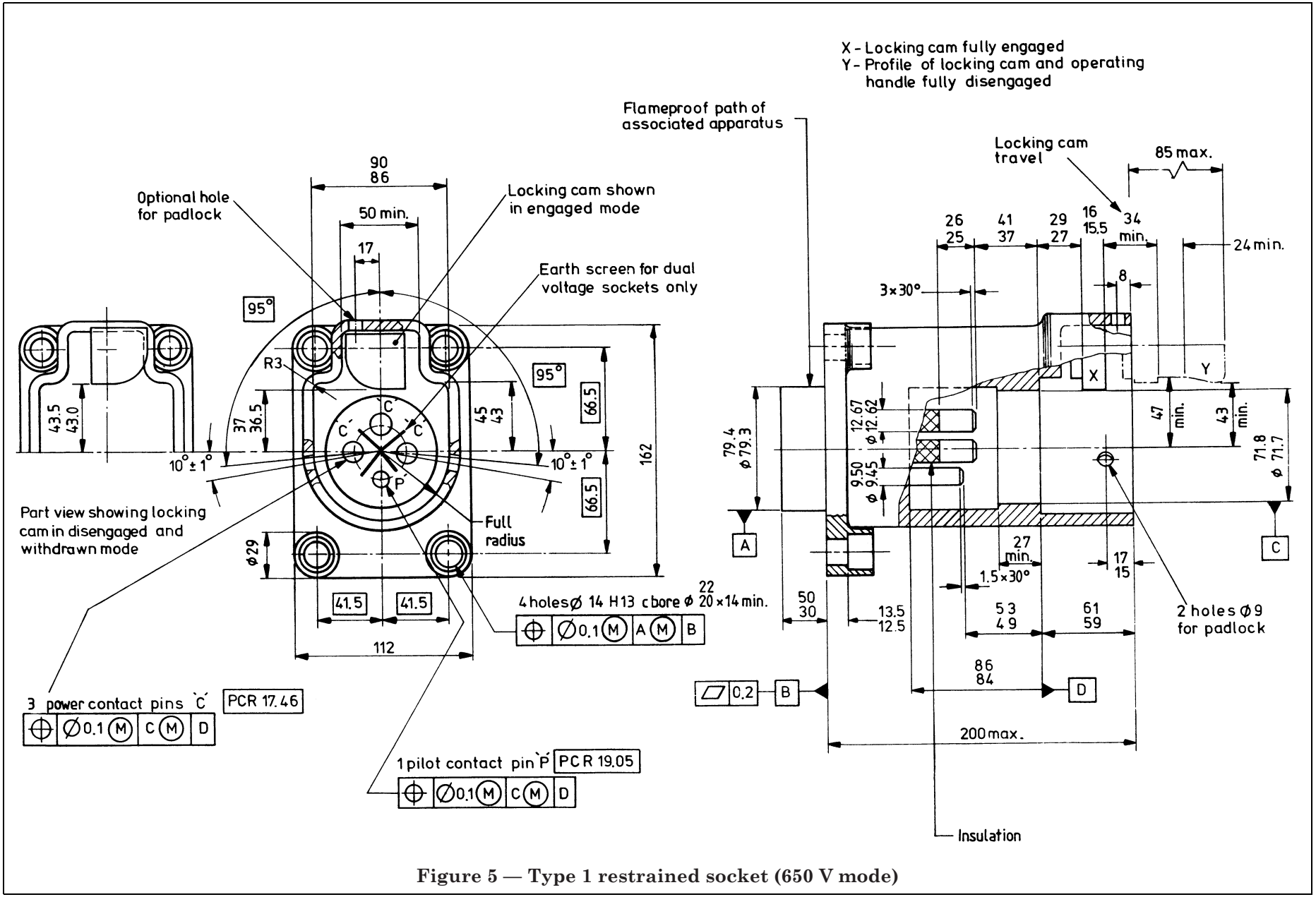


Figure 5 — Type 1 restrained socket (650 V mode)

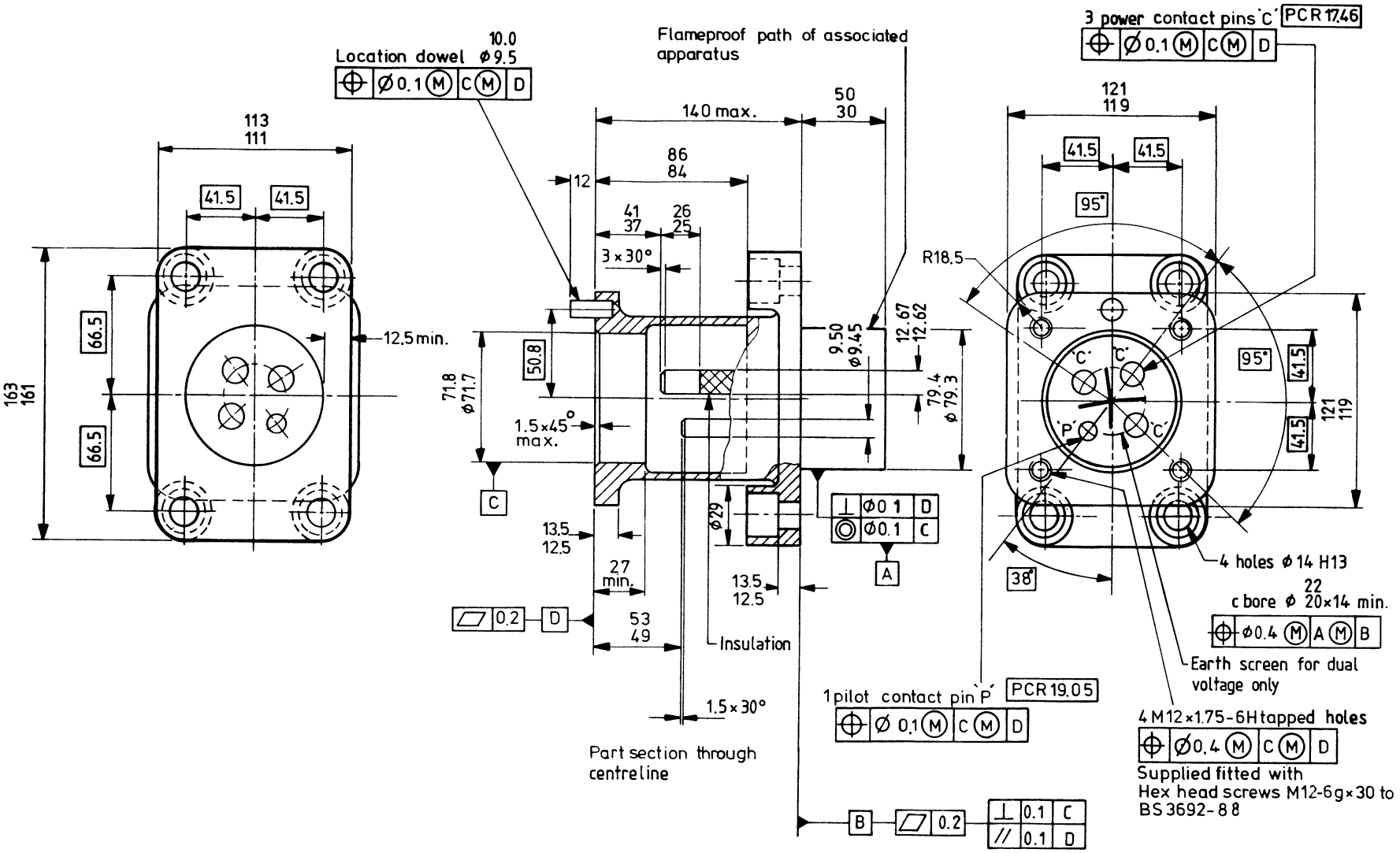
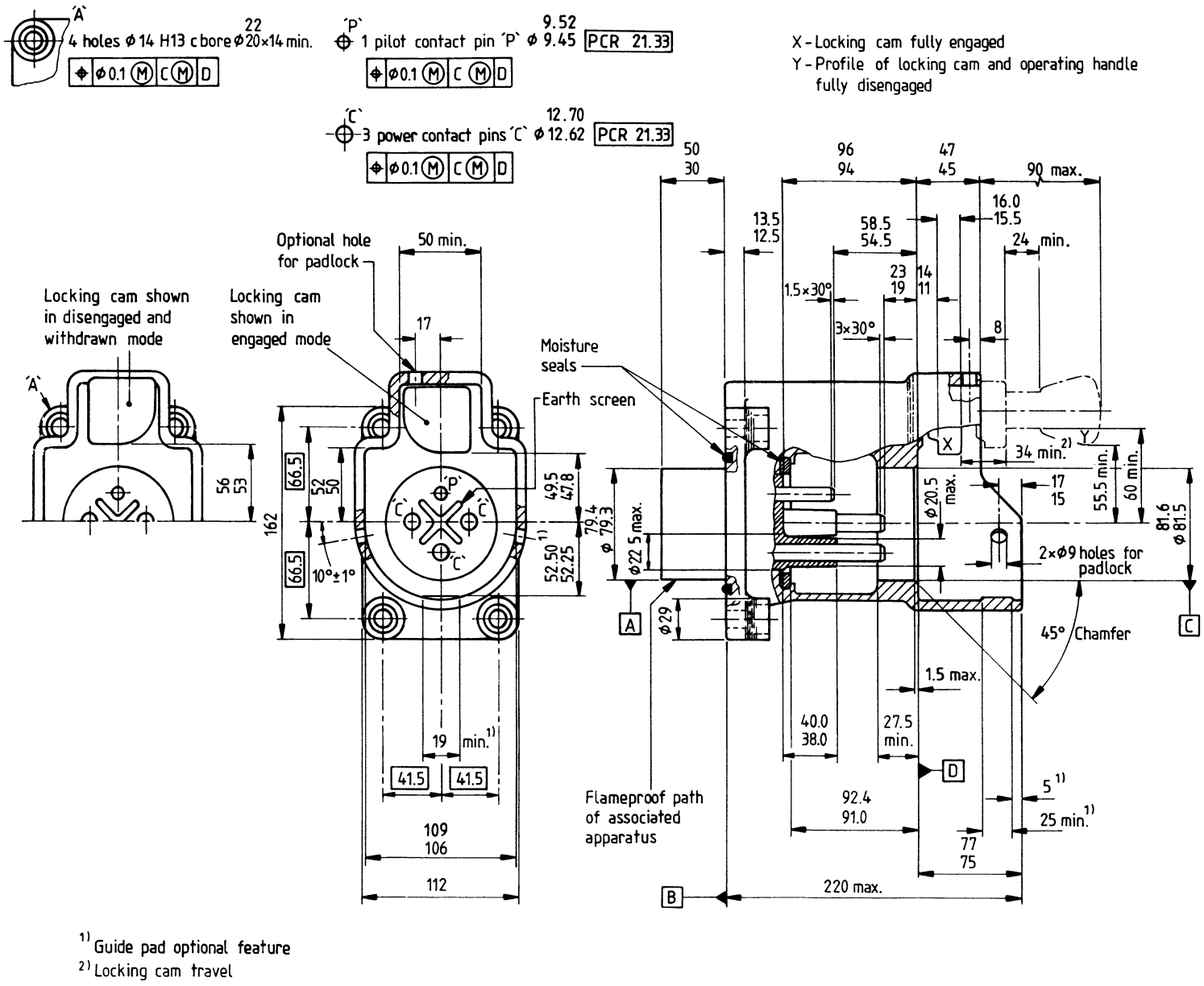


Figure 6 — Type 1 bolted socket (650 V mode)



1) Guide pad optional feature
2) Locking cam travel

Figure 7 — Type 2 restrained socket

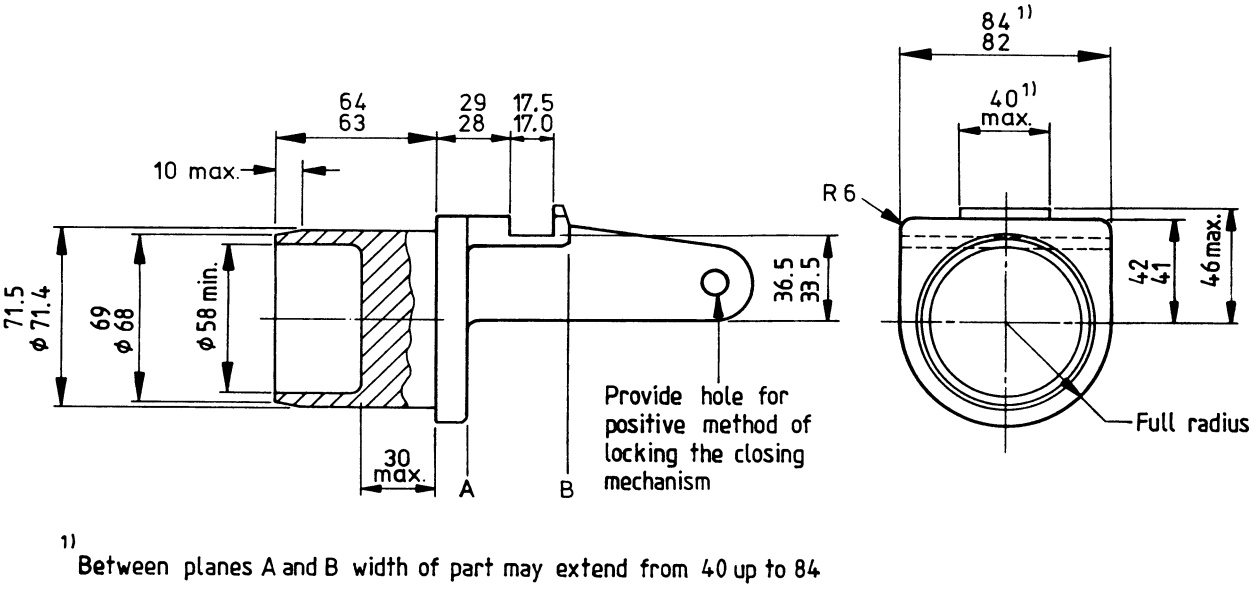


Figure 8 — Type 1 flameproof closure cap for restrained sockets

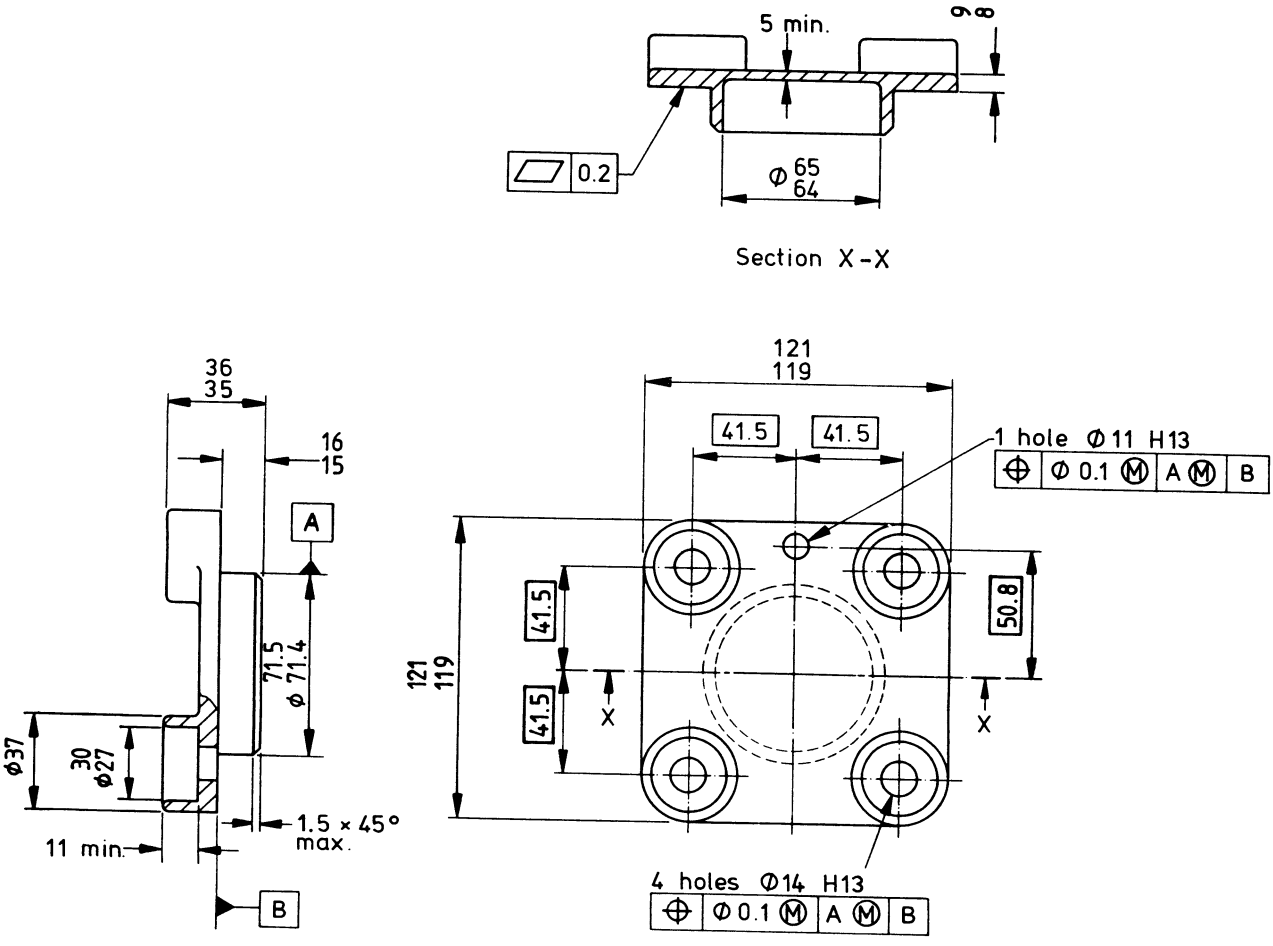


Figure 9 — Type 1 flameproof closure cap for bolted sockets

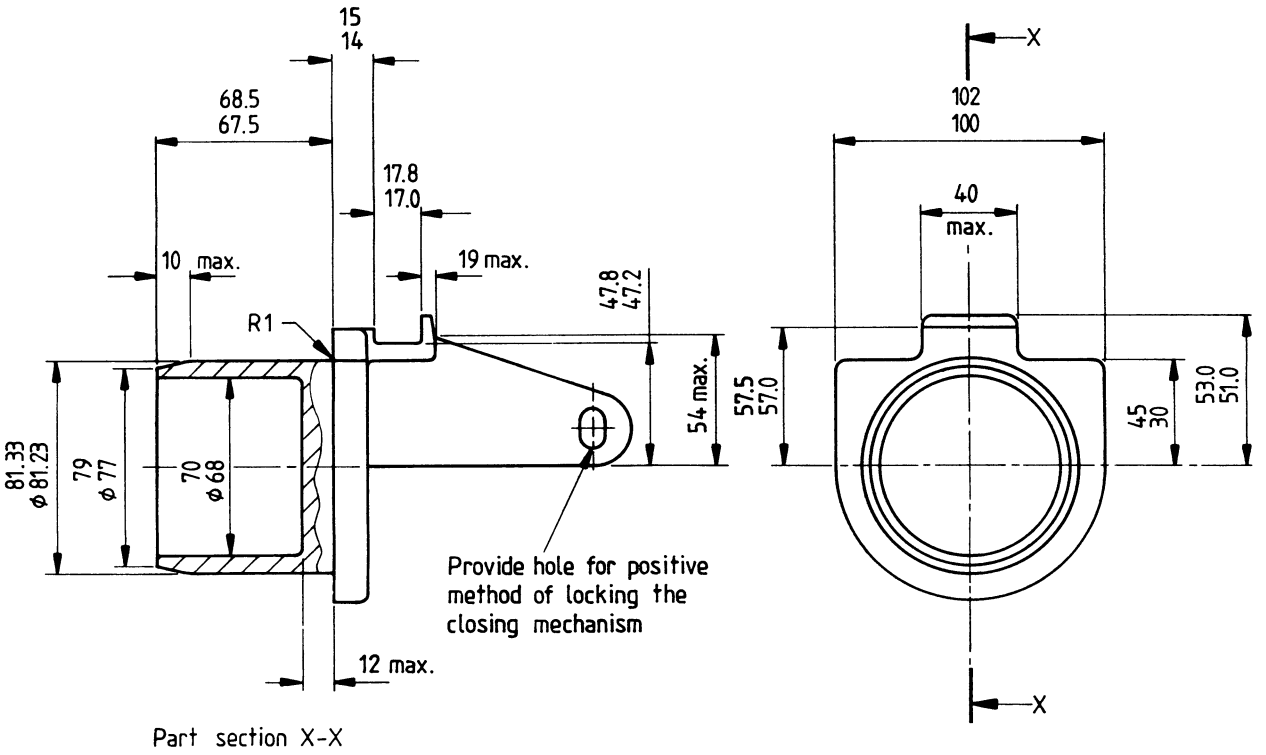


Figure 10 — Type 2 flameproof closer cap for restrained sockets

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[2)] Obsolescent. Replaced by BS 4683-2:1971, but remains current to maintain validity of existing certificates and to grant supplementary certificates.

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