
International Standard



7931

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Insulation caps and bushes for resistance welding equipment

Capuchons et bagues isolantes pour les matériels pour soudage par résistance

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7931 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*.

Insulation caps and bushes for resistance welding equipment

1 Scope and field of application

This International Standard specifies dimensions and requirements for insulated caps and bushes in the secondary circuit for resistance welding equipment, especially for use in back-ups according to ISO 5827.

2 References

ISO 887, *Plain washers for metric bolts, screws and nuts — General plan.*

ISO 4762, *Hexagon socket head cap screws — Product grade A.*

ISO 5827, *Spot welding — Electrode back-ups and clamps.*

3 Dimensions

3.1 Insulation caps C

Insulation caps C shall have the dimensions shown in figure 1.

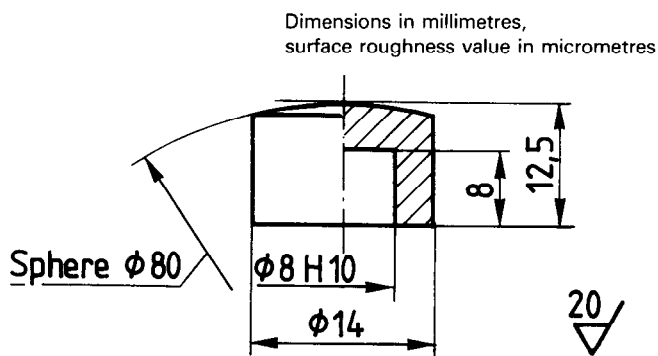


Figure 1 — Insulation cap

3.1.1 Material

The material from which the insulation caps are manufactured shall be high-strength insulating material, e.g. glass fibre reinforced polyamide.

3.1.2 Finish

The finish shall ensure that the edges are chamfered and the grooves rounded.

3.1.3 Marking

Insulation caps to this International Standard shall be marked with the letter C.

3.1.4 Designation

The designation for an insulation cap C which conforms to this International Standard shall be as follows:

Insulation cap ISO 7931 - C

3.2 Insulation bushes B

Insulation bushes B shall have the dimensions given in figure 2 and the table.

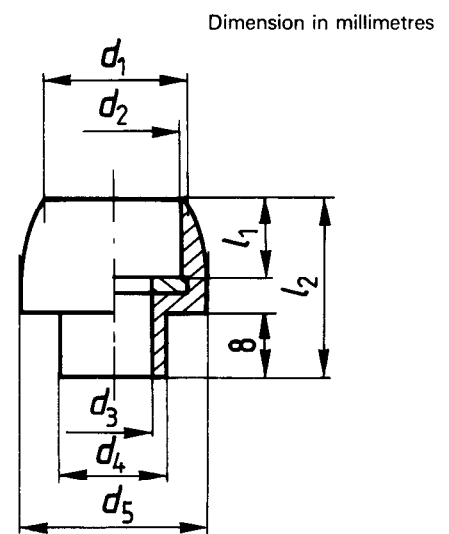


Figure 2 — Insulation bush

Table — Dimensions¹⁾

Dimensions in millimetres

Size	$d_1^{2)}$	d_2	d_3	d_4	d_5	l_1	l_2
6	13	10,5	6,4	9,5	16	7	20
8	17	13,5	8,4	11,5	20	9	22
10	19	16,5	10,5	14	24	11	24
12	21	19,5	13	16	27	13	26

1) Where the hole diameter is considerably larger than the diameter d_4 or slotted holes are used, a washer is necessary to support the bush.

2) For information only.

3.2.1 Material

The material from which the insulation bushes and washers are manufactured shall be as follows:

- bush: high-strength insulating material, e.g. glass fibre reinforced polyamide;
- washer: steel, e.g. Fe 510.

3.2.2 Finish

The finish shall ensure that the edges are chamfered and the grooves rounded.

3.2.3 Marking

Insulation bushes to this International Standard shall be marked with the letter B and the size, e.g. B 10.

3.2.4 Designation

The designation for an insulation bush B which conforms to this International Standard shall comprise the following items in the order given:

- a) the name;
- b) the reference to this International Standard;

c) the letter B;

d) the size.

Example of the designation for an insulation bush B of size 10:

Insulation bush ISO 7931 - B 10

4 Application

Insulation bushes conforming to this International Standard shall only be loaded with the torque moment of the fixing screws.

Additional forces shall be taken up by other measures (e.g. provision of shoulders or similar means of support).

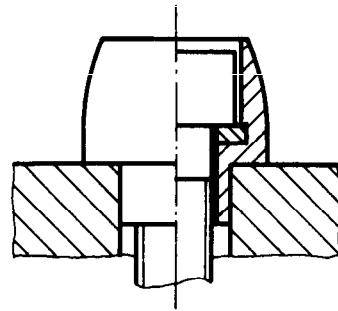


Figure 3 — Typical example of application