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International Standard



3731

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

Road vehicles — Electrical connections between towing vehicles and trailers with 24 V electrical equipment — Type 24 S (supplementary)

Véhicules routiers — Liaisons électriques entre véhicules tracteurs et véhicules remorqués avec équipement électrique 24 V — Type 24 S (supplémentaire)

Second edition — 1980-07-15

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Descriptors : road vehicles, tractors, towed road vehicles, trailers, electric connection, electric connectors, specifications, interchangeability, dimensions, dimensional tolerances, marking.

Price based on 4 pages

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

International Standard ISO 3731 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in February 1979.

It has been approved by the member bodies of the following countries:

Austria	Germany, F.R.	New Zealand
Belgium	Italy	Poland
Brazil	Japan	Romania
Chile	Korea, Dem. P. Rep. of	South Africa, Rep. of
Czechoslovakia	Korea, Rep. of	Spain
Egypt, Arab Rep. of	Mexico	Sweden
France	Netherlands	Turkey

The member bodies of the following countries expressed disapproval of the document on technical grounds:

United Kingdom
USSR

This second edition cancels and replaces the first edition (i.e. ISO 3731-1976).

4.4 Plug

The plug shall be mounted on the trailer in the case of a road train and on the towing vehicle in the case of an articulated road train.¹⁾

The plug is provided with :

- 6 spring tubes corresponding to pins Nos. 2 to 7;
- 1 contact pin (No. 1).

The internal diameter of tubes Nos. 2 to 7 shall be such that the corresponding pins of the socket can be connected with a moderate push, but they shall ensure a good electrical contact.

The rear terminals shall each be capable of receiving one conductor of at least 2,5 mm² cross-section.

The contact designations shall be permanently marked on the terminal face in symbols not less than 2 mm high. These symbols, which need not necessarily be numbers, may be different from those indicated in figure 2, provided that the specified pin locations of the different functions are complied with.

All metallic parts of the plug shall be made of corrosion-resistant material or shall be adequately protected against corrosion.

The manufacturer shall provide means for fixing and sealing the cable.

4.5 Allocation of cable colours

The cable colours of the seven-core connecting cable are allocated to the different circuits as follows :

Contact No.	Circuit	Cable colour
1	Common return	white
2	No allocation	black
3	Reversing light	yellow
4	Power supply	red
5	Sensing device with common return	green
6	Additional power supply	brown
7	Rear fog light	blue

4.6 Distinguishing marking

The 24 S connector shall be distinguished from the 24 N connector (see ISO 1185) by means of a different colouring at least of the insulating parts and/or the cover.

A light and permanent colour shall be used for the 24 S connector.

4.7 Mounting of the socket and plug assembly

The clearance dimensions to be provided around the socket and plug assembly are shown in figure 3.

The location on the towing vehicle is specified in ISO 4009.

1) If desired, a socket may also be mounted on the front of the trailer or on the towing vehicle in the case of an articulated road train.

Dimensions in millimetres

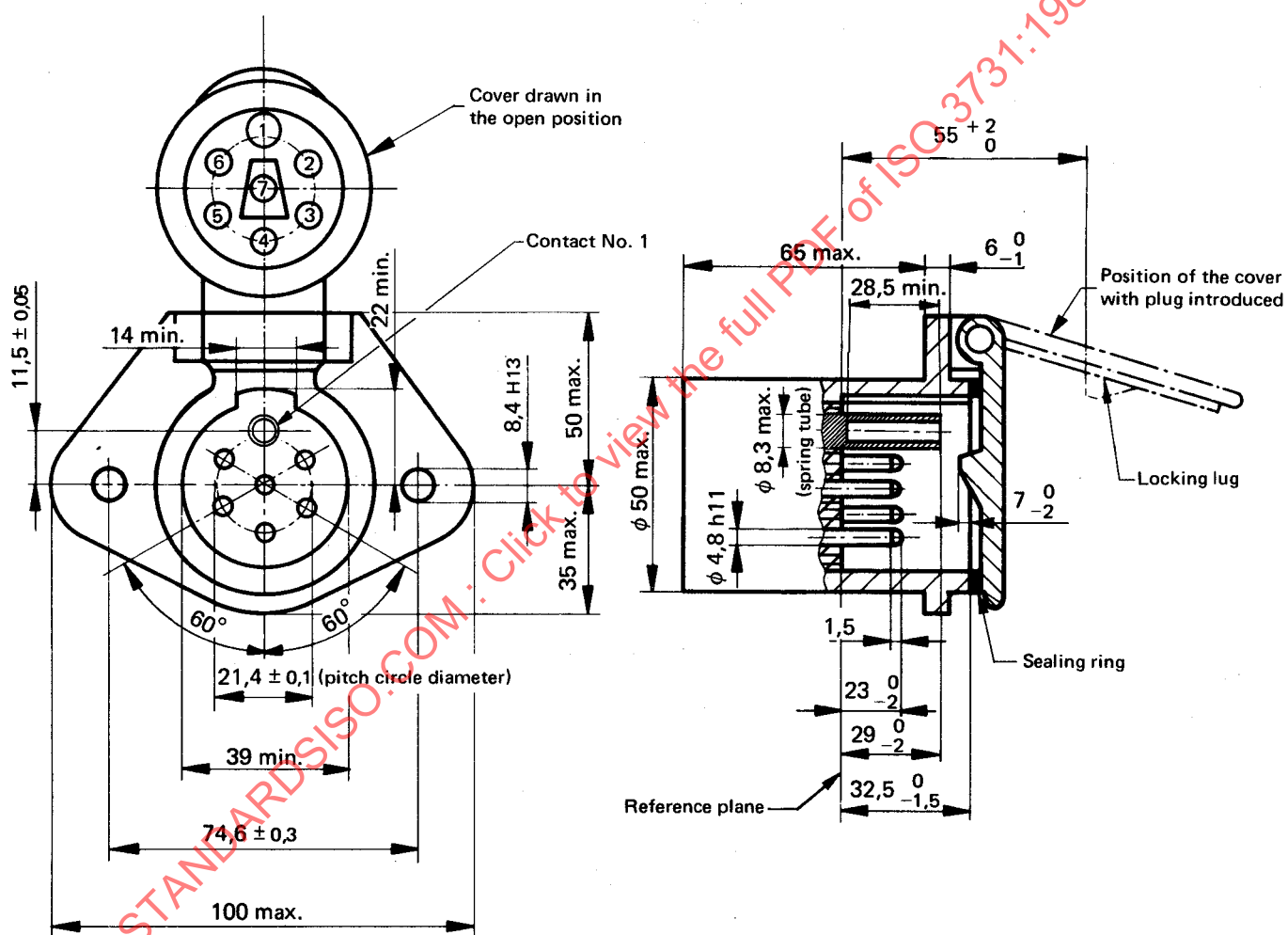


Figure 1 — Socket

Dimensions in millimetres

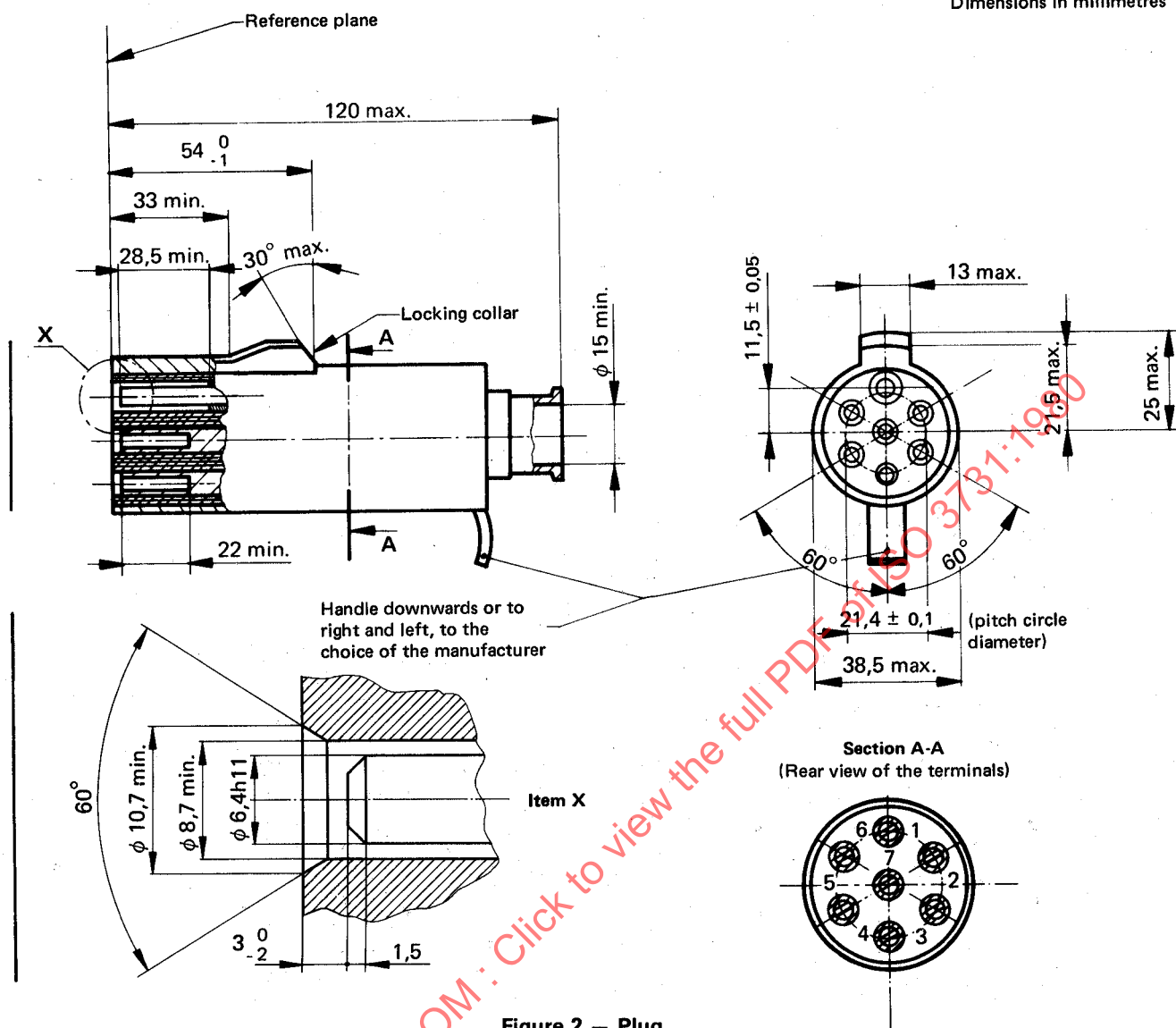
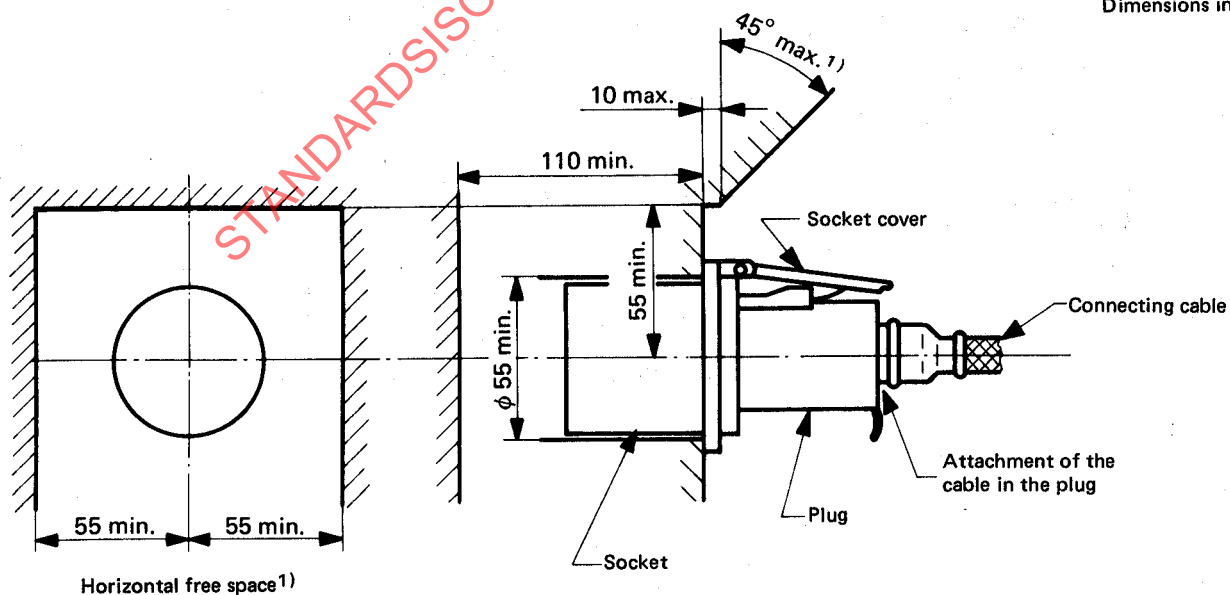


Figure 2 — Plug

Dimensions in millimetres



1) The angle of 45° max. shall extend across the full horizontal free space.

Figure 3 — Socket and plug assembly (free space)