
**Road vehicles — Connectors for the
electrical connection of towing and towed
vehicles — 13-pole connectors for
vehicles with 12 V nominal supply
voltage**

*Véhicules routiers — Connecteurs pour liaisons électriques entre
véhicules tracteurs et véhicules tractés — Connecteurs à 13 contacts
pour les véhicules à tension nominale de 12 V*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

STANDARDSISO.COM : Click to view the full PDF of ISO 11446:2004

© ISO 2004

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Dimensions	1
4.1 General	1
4.2 Plug	1
4.3 Socket	3
4.4 Park socket	5
5 Application of the connector	8
5.1 Connector positions and free space	8
5.2 Contact allocation	8
5.3 Contact designation	8
5.4 Terminals	9
5.5 Connecting cable	9
6 Tests and requirements	9

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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11446 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This third edition cancels and replaces the second edition (ISO 11446:1995), which has been technically revised.

Road vehicles — Connectors for the electrical connection of towing and towed vehicles — 13-pole connectors for vehicles with 12 V nominal supply voltage

1 Scope

This International Standard specifies the dimensional characteristics of, and contact allocation and tests and requirements for, 13-pole connectors for the electrical connection of towing and towed vehicles with 12 V nominal supply voltage. It specifies a park socket for receiving and storing the plug when it is disconnected.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1103, *Road vehicles — Coupling balls for caravans and light trailers — Dimensions*

ISO 4091, *Road vehicles — Connectors for the electrical connection of towing and towed vehicles — Definitions, tests and requirements*

ISO 4141 (all parts), *Road vehicles — Multi-core connecting cables*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4091 apply.

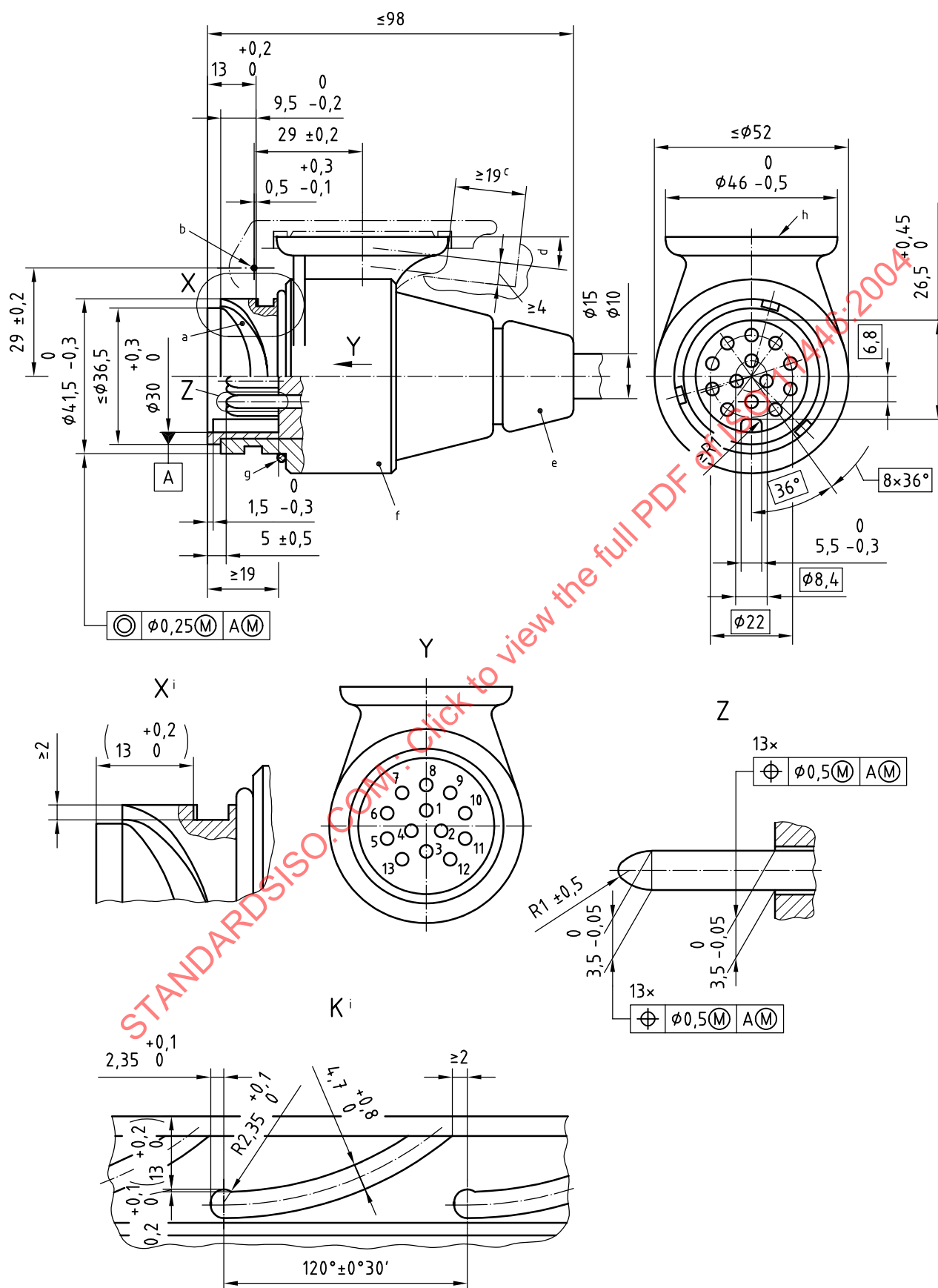
4 Dimensions

4.1 General

Details not specified are at the manufacturer's discretion. The contacts shall be floating and shall align to the datum position when plug and socket are engaged.

4.2 Plug

The dimensions of the plug shall be in accordance with Figure 1.



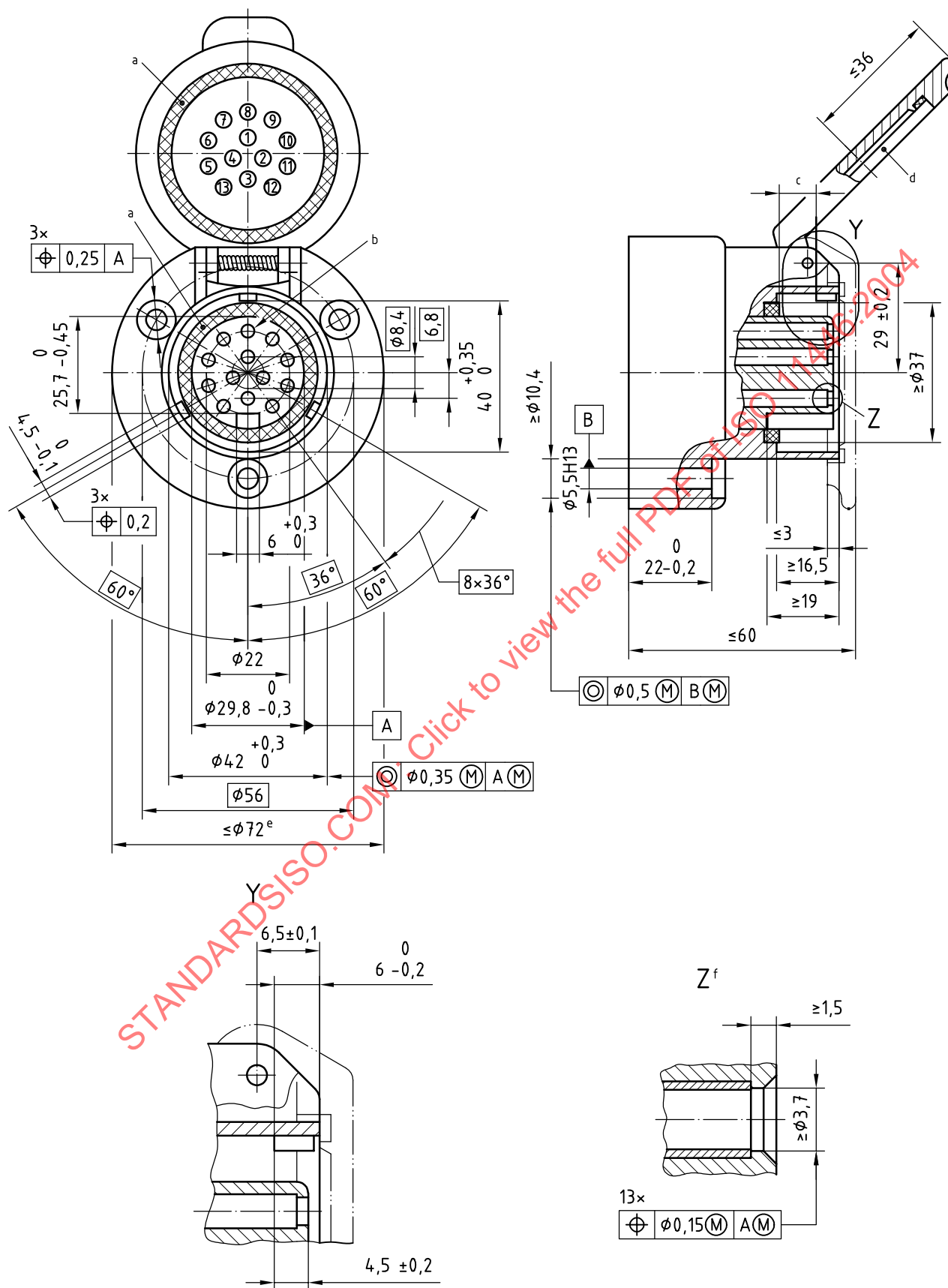
Key

- a Twist lock shown in locked position.
- b Reference point cover pivot of socket.
- c Limiting line specifying the minimum space required for the socket cover to rest on the cover rest.
- d Angle as selected by the manufacturer.
- e Retention and sealing of connecting cable.
- f Coupling ring.
- g Sealing ring.
- h Cover rest.
- i Twist lock profile.

Figure 1 — Plug**4.3 Socket**

The dimensions of the socket shall be in accordance with Figure 2. The cover is shown in the open position. It shall close automatically when the plug is disconnected.

Dimensions in millimetres



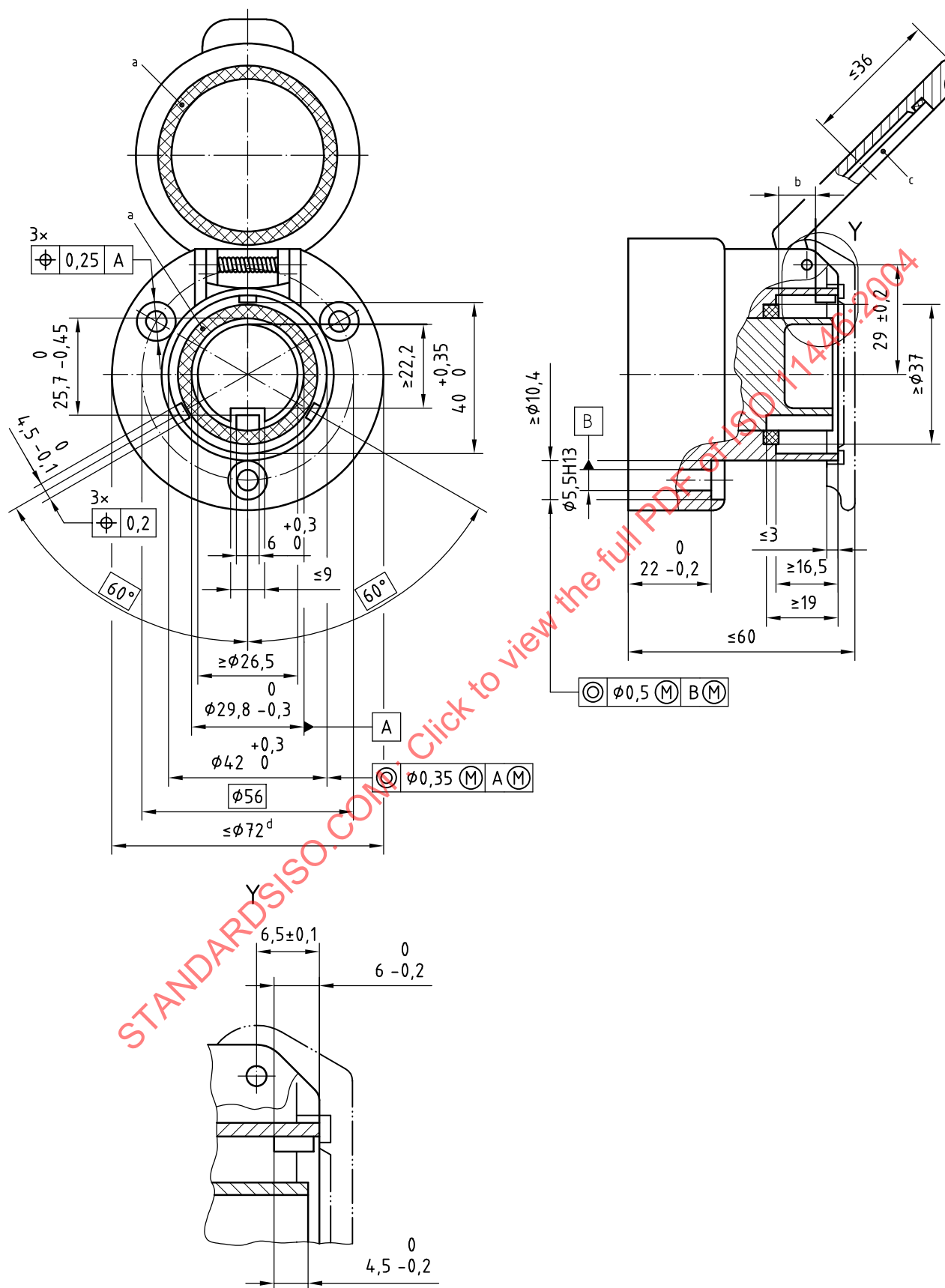
Key

- a Sealing as selected by the manufacturer.
- b Contact No. 8.
- c Position according to the plug dimension and twist lock torque between 1 N·m and 3,5 N·m.
- d Opening angle minimum 135°.
- e Other housing design is permitted provided the dimensions are within the maximum diameter.
- f Contact sleeve.

Figure 2 — Socket**4.4 Park socket**

The dimensions of the park socket shall be in accordance with Figure 3. The cover is shown in the open position. It shall close automatically when the plug is disconnected.

Dimensions in millimetres



- a Sealing as selected by the manufacturer.
- b Position according to the plug dimension and twist lock torque between 1 N·m and 3,5 N·m.
- c Opening angle minimum 135°.
- d Other housing design is permitted provided the dimensions are within the maximum diameter.

Figure 3 — Park socket

STANDARDSISO.COM : Click to view the full PDF of ISO 11446:2004