SLOVENSKI STANDARD
SIST EN ISO 6149-2:2007

01-maj-2007

Priključ ki v fluidni tehniki in za splošno uporabo – Vhodi in ravni zaključ ki z navoji po ISO 261 in tesnilkami O – 2. del: Mere, oblike, preskusne metode in zahteve za zelo obremenjene ravne zaključ ke (vrste S) (ISO 6149-2:2006)

Connections for hydraulic fluid power and general use - Ports and stud ends with ISO 261 metric threads and O-ring sealing - Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends (ISO 6149-2:2006)

Leitungsanschlüsse für Fluidtechnik und allgemeine Anwendung - Einschraublöcher und Einschraubzapfen mit metrischem Gewinde nach ISO 261 und O-Ring-Abdichtung - Teil 2: Maße, Konstruktion, Prüfverfahren und Anforderungen für Einschraubzapfen, schwere Reihe (S-Reihe) (ISO 6149-2:2006)

Raccordements pour transmissions hydrauliques et applications générales - Orifices et éléments mâles a filetage métrique ISO 261 et joint torique - Partie 2: Dimensions, conception, méthodes d'essai et exigences des éléments mâles de série lourde (série S) (ISO 6149-2:2006)

Ta slovenski standard je istoveten z: **EN ISO 6149-2:2007**

ICS:

23.100.40 Cevna napeljava in sklopke Piping and couplings

SIST EN ISO 6149-2:2007 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 6149-2

February 2007

ICS 23.100.40

English Version

Connections for hydraulic fluid power and general use - Ports and stud ends with ISO 261 metric threads and O-ring sealing - Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends (ISO 6149-2:2006)

Raccordements pour transmissions hydrauliques et applications générales - Orifices et éléments mâles à filetage métrique ISO 261 et joint torique - Partie 2: Dimensions, conception, méthodes d'essai et exigences des éléments mâles de série lourde (série S) (ISO 6149-2:2006)

Leitungsanschlüsse für Fluidtechnik und allgemeine Anwendung - Einschraublöcher und Einschraubzapfen mit metrischem Gewinde nach ISO 261 und O-Ring-Abdichtung - Teil 2: Maße, Konstruktion, Prüfverfahren und Anforderungen für Einschraubzapfen, schwere Reihe (S-Reihe) (ISO 6149-2:2006)

This European Standard was approved by CEN on 4 February 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN ISO 6149-2:2007: E

Foreword

The text of ISO 6149-2:2006 has been prepared by Technical Committee ISO/TC 131 "Fluid power systems" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 6149-2:2007 by Technical Committee ECISS/TC 29 "Steel tubes and fittings for steel tubes", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2007, and conflicting national standards shall be withdrawn at the latest by August 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 6149-2:2006 has been approved by CEN as EN ISO 6149-2:2007 without any modifications.

INTERNATIONAL STANDARD

ISO 6149-2

Second edition
2006-02-15

Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing —

Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends

Raccordements pour transmissions hydrauliques et applications générales — Orifices et éléments mâles à filetage métrique ISO 261 et joint torique —

Partie 2: Dimensions, conception, méthodes d'essai et exigences des éléments mâles de série lourde (série S)

Reference number
ISO 6149-2:2006(E)

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

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 6149-2 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components*.

This second edition cancels and replaces the first edition (ISO 6149-2:1993), which has been technically revised.

ISO 6149 consists of the following parts, under the general title *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing*:

— *Part 1: Ports with truncated housing for O-ring seal*

— *Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends*

— *Part 3: Dimensions, design, test methods and requirements for light-duty (L series) stud ends*

— *Part 4: Dimensions, design, test methods and requirements of external and internal hexport plugs*

Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. In general applications, a fluid (liquid or gas) may be conveyed under pressure.

Components are connected through their threaded ports by stud ends on fluid conductor connectors to tubes and pipes or to hose fittings and hoses.

For threaded ports and stud ends specified in new designs in hydraulic fluid power applications, ISO/TC 131/SC 4 recommends that the ISO 6149 series be used because these International Standards specify ports and stud ends with metric threads and O-ring sealing and because the subcommittee would like to help users by recommending one preferred system. ISO/TC 131/SC 4 further recommends that threaded ports and stud ends in accordance with the ISO 1179 series, ISO 9974 series and ISO 11926 series not be used for new designs in hydraulic fluid power applications; these International Standards are maintained because they specify ports and stud ends that are currently used in hydraulic systems worldwide.

Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing —

Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends

1 Scope

This part of ISO 6149 specifies dimensions, performance requirements and test procedures for metric adjustable and non-adjustable heavy-duty (S series) stud ends and O-rings.

Stud ends in accordance with this part of ISO 6149 may be used at working pressures up to 63 MPa [630 bar[1)]] for non-adjustable stud ends and 40 MPa (400 bar) for adjustable stud ends. The permissible working pressure depends upon the stud end size, materials, design, working conditions, application, etc.

Conformance to the dimensional information in this part of ISO 6149 does not guarantee rated performance. Each manufacturer should perform testing according to the specification contained in this part of ISO 6149 to assure that components comply with the performance ratings.

NOTE 1 A significant number of tests have been conducted to confirm the performance requirements of connection ends made from carbon steel.

NOTE 2 This part of ISO 6149 applies to connectors detailed in ISO 8434-1, ISO 8434-3 and ISO 8434-4, and plugs in accordance with ISO 6149-4. See ISO 12151-4 for related hose fitting specification.

NOTE 3 The Introduction of this part of ISO 6149 gives recommendations for ports and stud ends to be used for new designs in hydraulic fluid power applications.

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 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 261, *ISO general purpose metric screw threads — General plan*

ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data*

ISO 3601-3:2005, *Fluid power systems — O-rings — Part 3: Quality acceptance criteria*

1) 1 bar = 0,1 MPa = 10^5 Pa; 1 MPa = 1 N/mm^2.