Irish Standard
I.S. EN ISO 6149-4:2017

Connections for fluid power and general use - Ports and stud ends with ISO 261 metric threads and O-ring sealing - Part 4: Dimensions, design, test methods and requirements for external hex and internal hex port plugs (ISO 6149-4:2017)

I.S. EN ISO 6149-4:2017

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National Foreword

I.S. EN ISO 6149-4:2017 is the adopted Irish version of the European Document EN ISO 6149-4:2017, Connections for fluid power and general use - Ports and stud ends with ISO 261 metric threads and O-ring sealing - Part 4: Dimensions, design, test methods and requirements for external hex and internal hex port plugs (ISO 6149-4:2017)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 6149-4

September 2017

ICS 23.100.40

Supersedes EN ISO 6149-4:2014

English Version

Connections for fluid power and general use - Ports and stud ends with ISO 261 metric threads and O-ring sealing - Part 4: Dimensions, design, test methods and requirements for external hex and internal hex port plugs (ISO 6149-4:2017)

Raccordements pour transmissions hydrauliques et applications générales - Orifices et éléments mâles à filetage métrique ISO 261 et joint torique - Partie 4: Dimensions, conception, méthodes d'essai et exigences des bouchons d'orifice à six pans externes et à six pans internes (ISO 6149-4:2017)

This European Standard was approved by CEN on 7 September 2017.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN ISO 6149-4:2017) has been prepared by Technical Committee ISO/TC 131 “Fluid power systems” in collaboration with Technical Committee ECISS/TC 110 “Steel tubes, and iron and steel fittings” 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of an identical text or by endorsement, at the latest by March 2018 and conflicting national standards shall be withdrawn at the latest by March 2018.

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

This document supersedes EN ISO 6149-4:2014.

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Endorsement notice

The text of ISO 6149-4:2017 has been approved by CEN as EN ISO 6149-4:2017 without any modification.

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INTERNATIONAL STANDARD

ISO 6149-4

Second edition
2017-08

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

Part 4: Dimensions, design, test methods and requirements for external hex and internal hex port plugs

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

Partie 4: Dimensions, conception, méthodes d'essai et exigences des bouchons d'orifice à six pans externes et à six pans internes

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by ISO/TC 131, *Fluid power systems*, SC 4, *Connectors and similar products and components*.

This second edition cancels and replaces the first edition (ISO 6149-4:2006), of which it constitutes a minor revision.

The main change since last version is the addition of a warning statement about the hazards of intermixing of stud ends with the various port types.

Introduction

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within an enclosed circuit. In general applications, a fluid can 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. Fluid ports are closed by inserting a plug in the port.

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

Part 4: Dimensions, design, test methods and requirements for external hex and internal hex port plugs

1 Scope

This document specifies dimensions and performance requirements for external hex and internal hex port plugs for use with ISO 6149-1 ports.

Port plugs in accordance with this document can be used at working pressures up to 63 MPa (630 bar[1)]). The permissible working pressure depends upon the plug end size, materials, design, working conditions, application, etc.

Conformance to the dimensional information in this document does not guarantee rated performance. Each manufacturer is expected to perform testing according to the specification contained in this document to assure that components comply with the performance ratings.

WARNING — The use of stud ends conforming to this document with ports conforming to the relevant parts of ISO 1179, ISO 9974 and ISO 11926 could lead to a hazardous situation.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 IHRD)*

ISO 261:1998, *ISO general purpose metric screw threads — General plan*

ISO 1629, *Rubber and latices — Nomenclature*

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

ISO 4042, *Fasteners — Electroplated coatings*

ISO 4759-1:2000, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C*

ISO 5598, *Fluid power systems and components — Vocabulary*

ISO 6149-1, *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*

ISO 6149-2, *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) 1 bar = 0,1 MPa = 10^5 Pa; 1 MPa = 1 N/mm^2.