ICS 23.100.40 SLOVENSKÁ TECHNICKÁ NORMA Február 2023

STN	**Spojky na všeobecné použitie a na tekutinové mechanizmy Otvory a koncovky so závitmi podľa ISO 228-1 s pružným alebo kovovým tesnením Časť 2: Koncovky s pružným tesnením (typ E) na veľké zaťaženie (skupina S) a malé zaťaženie (skupina L) (ISO 1179-2: 2022)**	**STN EN ISO 1179-2** 13 7886

Connections for general use and fluid power - Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing - Part 2: Heavy-duty (S series) and light-duty (L series) stud ends with elastomeric sealing (type E) (ISO 1179-2:2022)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/23

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Oznámením tejto normy sa ruší
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EUROPEAN STANDARD

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EN ISO 1179-2

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Supersedes EN ISO 1179-2:2013

English Version

Connections for general use and fluid power - Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing - Part 2: Heavy-duty (S series) and light-duty (L series) stud ends with elastomeric sealing (type E) (ISO 1179-2:2022)

Raccordements pour applications générales et transmissions hydrauliques et pneumatiques - Orifices et éléments mâles à filetage ISO 228-1 à joint en élastomère ou étanchéité métal sur métal - Partie 2: Éléments mâles de séries légère (série L) et lourde (série S) avec joint en élastomère (type E) (ISO 1179-2:2022)

Leitungsanschlüsse für allgemeine Anwendung und Fluidtechnik - Einschraublöcher und Einschraubzapfen mit Gewinde nach ISO 228-1 und Elastomerdichtung oder metallener Dichtkante - Teil 2: Einschraubzapfen mit Elastomerdichtung (Form E), schwere (S) und leichte Reihe (L) (ISO 1179-2:2022)

This European Standard was approved by CEN on 13 November 2022.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 1179-2:2022) has been prepared by Technical Committee ISO/TC 131 "Fluid power systems" in collaboration with Technical Committee CEN/TC 459/SC 10 “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 May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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 1179-2:2013.

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Endorsement notice

The text of ISO 1179-2:2022 has been approved by CEN as EN ISO 1179-2:2022 without any modification.

INTERNATIONAL STANDARD

ISO 1179-2

Third edition
2022-11

Connections for general use and fluid power — Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing —

Part 2: Heavy-duty (S series) and light-duty (L series) stud ends with elastomeric sealing (type E)

Raccordements pour applications générales et transmissions hydrauliques et pneumatiques — Orifices et éléments mâles à filetage ISO 228-1 à joint en élastomère ou étanchéité métal sur métal —

Partie 2: Éléments mâles de séries légère (série L) et lourde (série S) avec joint en élastomère (type E)

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

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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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 459, *ECISS - European Committee for Iron and Steel Standardization,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 1179-2:2013), which has been technically revised.

The main changes are as follows:

— Clause 4, Interchangeability warning, concerning the hazards of intermixing of stud ends with various port types, has been added;

— material requirements for elastomeric seal have been added;

— test methods, test report and re-use of components have been replaced with the equivalent requirements of ISO 19879;

— Figures 1 and 2 have been redrawn;

— the tables have been renumbered to the order in which they are cited in the text (Table 2 to Table 1, Table 4 to Table 2, Table 3 remains the same, Table 5 to Table 4, Table 1 to Table 5);

— Annex A and the references to the annex have been deleted;

A list of all parts in the ISO 1179 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within a circuit. In general applications, a fluid can be conveyed under pressure. Components are connected through their threaded ports by 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, the ISO 6149 series should be used because these International Standards specify ports and stud ends with metric threads and O-ring sealing, and because the use of only one system is preferred. It is further recommended that threaded ports and stud ends in accordance with the ISO 1179 series, ISO 9974 series and ISO 11926 series should 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).

For threaded ports and stud ends specified in new designs in pneumatic fluid power applications, ISO 16030 should be used, except where products are to interface with ISO 7-1 threads, because the use of only one system is preferred. It is further recommended that threaded ports and stud ends in accordance with the ISO 1179 series should not be used for new designs in pneumatic fluid power applications (these International Standards are maintained because they specify ports and stud ends that are currently used in pneumatic systems worldwide).

Significant testing over more than 35 years of use has confirmed the performance requirements of connection ends made from carbon steel. The stud end connections specified in this document, ISO 1179-3 and ISO 1179-4 apply to connectors detailed in ISO 8434-1, ISO 8434-2 and ISO 8434-6.

INTERNATIONAL STANDARD **ISO 1179-2:2022(E)**

Connections for general use and fluid power — Ports and stud ends with ISO 228-1 threads with elastomeric or metal-to-metal sealing —

Part 2: Heavy-duty (S series) and light-duty (L series) stud ends with elastomeric sealing (type E)

1 Scope

This document specifies the dimensions, performance requirements and test procedures for heavy-duty (S series) and light-duty (L series) stud ends with threads, and the elastomeric sealing (type E) that is used with them as defined in ISO 228-1.

Heavy-duty (S series) stud ends with type E sealing in accordance with this document can be used at working pressures up to 63 MPa (630 bar). Light-duty (L series) stud ends with type E sealing in accordance with this document can be used at working pressures up to 25 MPa (250 bar). The permissible working pressure depends upon size, materials, design, working conditions, application, etc.

This document is applicable to connectors detailed in ISO 8434-1, ISO 8434-2 and ISO 8434-6.

NOTE The Introduction gives recommendations for ports and stud ends to be used for new designs in hydraulic and pneumatic fluid power applications.

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 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD*

ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 286-1, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 1: Basis of tolerances, deviations and fits*

ISO 286-2, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts*

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

ISO 9974-2, *Connections for general use and fluid power — Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing — Part 2: Stud ends with elastomeric sealing (type E)*

ISO 19879, *Metallic tube connections for fluid power and general use — Test methods for hydraulic fluid power connections*