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## Connections for general use and fluid power – Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing – Part 3: Stud ends with metal-or-metal sealing (type B) (ISO 9974-3:1996)

The European Standard EN ISO 9974-3:2000 has the status of a Swedish Standard. This document contains the official English version of EN ISO 9974-3:2000.

Swedish Standards corresponding to documents referred to in this Standard are listed in "Catalogue of Swedish Standards", issued by SIS. The Catalogue lists, with reference number and year of Swedish approval, International and European Standards approved as Swedish Standards as well as other Swedish Standards.

## Anslutningar för hydraulik och allmän användning – Portar och anslutningsändar med gängor enligt ISO 261 med tätningar av elaster eller metall mot metall – Del 3: Anslutningsändar med tätning av metall mot metall (typ B) (ISO 9974-3:1996)

Europastandarden EN ISO 9974-3:2000 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 9974-3:2000.

Motsvarigheten och aktualiteten i svensk standard till de publikationer som omnämns i denna standard framgår av "Katalog över svensk standard", som ges ut av SIS. I katalogen redovisas internationella och europeiska standarder som fastställts som svenska standarder och övriga gällande svenska standarder.

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ICS 23.100.30

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EUROPEAN STANDARD  
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EUROPÄISCHE NORM

**EN ISO 9974-3**

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English version

**Connections for general use and fluid power - Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing - Part 3: Stud ends with metal-to-metal sealing (type B) (ISO 9974-3:1996)**

Raccordements pour applications générales et transmissions hydrauliques et pneumatiques - Orifices et éléments mâles à filetage ISO 261 et joint en élastomère ou étanchéité métal sur métal - Partie 3: Eléments mâles avec étanchéité métal sur métal (type B) (ISO 9974-3:1996)

Leitungsanschlüsse für Fluidtechnik und allgemeine Anwendung - Einschraublöcher und Einschraubzapfen mit Gewinde nach ISO 261 und Elastomerdichtung oder metallener Dichtkante - Teil 3: Einschraubzapfen mit metallener Dichtkante (Typ B) (ISO 9974-3:1996)

This European Standard was approved by CEN on 8 April 2000.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

## Foreword

The text of the International Standard from Technical Committee ISO/TC 5 "Ferrous metal pipes and metallic fittings" and ISO/TC 131 "Fluid power systems" of the International Organization for Standardization (ISO) has been taken over as an European Standard 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 November 2000, and conflicting national standards shall be withdrawn at the latest by November 2000.

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

### Endorsement notice

The text of the International Standard ISO 9974-3:1996 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

## 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 may be conveyed under pressure.

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

# Connections for general use and fluid power — Ports and stud ends with ISO 261 threads with elastomeric or metal-to-metal sealing —

## Part 3:

### Stud ends with metal-to-metal sealing (type B)

#### 1 Scope

This part of ISO 9974 specifies dimensions, performance requirements and test procedures for heavy-duty (S series), light-duty (L series) and extra-light-duty (LL series) stud ends with ISO 261 threads and metal-to-metal sealing. It also specifies the designation of these stud ends. These stud ends should not be used for leak-free hydraulic fluid power applications because they may leak if re-used.

Stud ends in accordance with this part of ISO 9974 may be used at working pressures up to 10 MPa (100 bar<sup>1)</sup>) for the LL series, 25 MPa (250 bar) for the L series and 40 MPa (400 bar) for the S series. The permissible working pressure depends upon the stud end size, materials, design, working conditions, application, etc.

For threaded ports and stud ends specified in new designs in hydraulic fluid power applications, only ISO 6149 is to be used. Threaded ports and stud ends in accordance with ISO 1179, ISO 9974 and ISO 11926 are not to be used for new designs in hydraulic fluid power applications.

Conformance to the dimensional information in this part of ISO 9974 does not guarantee rated performance. Each manufacturer should perform testing according to the specification contained in this part of ISO 9974 to assure that components comply with the performance ratings.

#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 9974. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9974 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 261:—<sup>2)</sup>, *ISO general-purpose metric screw threads — General plan.*

ISO 3448:1992, *Industrial liquid lubricants — ISO viscosity classification.*

ISO 4759-1:1978, *Tolerances for fasteners — Part 1: Bolts, screws and nuts with thread diameters between 1,6 (inclusive) and 150 mm (inclusive) and product grades A, B and C.*

ISO 5598:1985, *Fluid power systems and components — Vocabulary.*

ISO 6508:1986, *Metallic materials — Hardness test — Rockwell test (scales A - B - C - D - E - F - G - H - K).*

ISO 6803:1994, *Rubber or plastics hoses and hose assemblies — Hydraulic pressure impulse test without flexing.*

1) 1 bar = 0,1 MPa = 10<sup>5</sup> Pa; 1 MPa = 1 N/mm<sup>2</sup>

2) To be published. (Revision of ISO 261:1973)