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**BS ISO 15171-2:2016**



**BSI Standards Publication**

# **Connections for fluid power and general use — Hydraulic couplings for diagnostic purposes**

Part 2: Coupling with M16 x 2 end for  
connection under pressure

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A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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# Connections for fluid power and general use — Hydraulic couplings for diagnostic purposes —

## Part 2: Coupling with M16 x 2 end for connection under pressure

*Raccordements pour transmissions hydrauliques et pneumatiques et  
usage général — Raccords hydrauliques pour diagnostics —*

*Partie 2: Raccord avec extrémité M16 x 2 pour connexion sous pression*



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ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
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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](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

The committee responsible for this document is 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 15171-2:2000), which constitutes a minor revision.

ISO 15171 consists of the following parts, under the general title *Connections for fluid power and general use — Hydraulic couplings for diagnostic purposes*:

- *Part 1: Coupling not for connection under pressure*
- *Part 2: Coupling with M16 × 2 end for connection under pressure*

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## 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 equipped with ports providing diagnostic points in a hydraulic system. Diagnostic couplings can be installed to aid in the diagnosis of hydraulic systems.

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 sub-committee 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 will be maintained because they specify ports and stud ends that are currently used in hydraulic systems worldwide.

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# Connections for fluid power and general use — Hydraulic couplings for diagnostic purposes —

## Part 2: Coupling with M16 x 2 end for connection under pressure

### 1 Scope

This part of ISO 15171 specifies dimensions, performance requirements, and test procedures for diagnostic couplings with an M16 × 2 connection end that can be connected under pressure without tools to a maximum pressure of 40 MPa (400 bar) providing following stud ends:

- ISO 6149-2 – M14 × 1,5;
- ISO 9974-2 – M14 × 1,5;
- ISO 1179-2 – G 1/4;
- ISO 11926-2 – 7/16-20 UNF.

The dimensions of the coupler counterpart are specified. The coupling is designed for use in hydraulic systems that use mineral oils.

**NOTE** The use of this coupling with fluids other than mineral oil requires an agreement between the supplier and the purchaser.

Couplings in accordance with this part of ISO 15171 may be used at a maximum working pressure of 63 MPa (630 bar). The working pressure depends upon the materials, design, working conditions, application, etc.

### 2 Normative references

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

ISO 724, *ISO general-purpose metric screw threads — Basic dimensions*

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

ISO 1179-2, *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 1629, *Rubber and latices — Nomenclature*

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

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*

ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*