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Pneumatic fluid power — Connections — Ports and stud ends

Transmissions pneumatiques — Raccordements — Orifices et éléments mâles



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16030 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*.

Annexes A and B of this International Standard are for information only.

Introduction

In pneumatic fluid power systems, power is transmitted and controlled through air under pressure within a circuit.

Components are connected through their threaded ports by means of connectors to tubes and pipes or to hose fittings and hoses. Ports are an integral part of fluid power components, such as valves, cylinders and filters.

In the past, various thread and port systems (for example ISO 7-1 and ISO 1179:1981) have been used in pneumatic fluid power systems. See the scope of this International Standard for further information on the relationship between those standards and this International Standard. Where ISO 7-1 tapered external threads are intended to connect to pneumatic components with internal threads, the ports in those components should conform to ISO 1179:1981.

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Pneumatic fluid power — Connections — Ports and stud ends

1 Scope

This International Standard specifies dimensions and performance requirements for ports and stud ends with parallel threads for pneumatic fluid power applications.

It specifies reusable, positively retained seals for leak-free connections, for use at pressures from $-0,09$ MPa ($-0,9$ bar¹⁾) up to $1,6$ MPa (16 bar).

Only this International Standard is applicable for threaded ports and stud ends specified in new designs in pneumatic fluid power applications.

Ports and stud ends conforming to this International Standard are not intended to connect with ports and stud ends that conform to ISO 1179 or threads that conform to ISO 7-1.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

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

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

ISO 3448, *Industrial liquid lubricants — ISO viscosity classification*

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

ISO 8778²⁾, *Pneumatic fluid power — Standard reference atmosphere*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 5598 apply.

1) $1 \text{ bar} = 0,1 \text{ MPa} = 10^5 \text{ Pa}$; $1 \text{ MPa} = 1 \text{ N/mm}^2$

2) To be published. (Revision of ISO 8778:1990)