
Pneumatic fluid power — Push-in connectors for thermoplastic tubes

*Transmissions pneumatiques — Raccords instantanés pour tubes
thermoplastiques*



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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 2.

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

ISO 14743 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 4, *Connectors and similar products and components*.

Introduction

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

Components are connected through their ports by means of connectors (fittings) and conductors.

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Pneumatic fluid power — Push-in connectors for thermoplastic tubes

1 Scope

This International Standard specifies the general requirements and test methods for the design and performance of push-in connectors for use with thermoplastic tubes with outside diameters of 3 mm to 12 mm, inclusive.

This International Standard is intended to establish uniform methods of testing complete push-in connector assemblies as used in pneumatic fluid power applications. It is not applicable to air braking systems.

NOTE In road vehicles, it is necessary to exercise special care to ensure that these connectors are never used in an air braking system.

2 Normative references

The following referenced documents are indispensable for the application 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 1746 ¹⁾, *Rubber or plastics hoses and tubing — Bending tests*

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 8573-1, *Compressed air — Part 1: Contaminants and purity classes*

ISO 16030, *Pneumatic fluid power — Connections — Ports and stud ends*

3 Terms and definitions

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

4 Performance requirements

4.1 Material

4.1.1 Connectors shall be made from materials that will fulfil the performance requirements.

4.1.2 In order to ensure proper grip, the locking mechanism, tube end of reducers and plugs shall be made from suitable thermoplastics.

1) To be published. (Revision of ISO 1746:1998)