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**Pneumatic fluid power — Cylindrical quick-action
couplings for maximum working pressures of 10 bar,
16 bar and 25 bar (1 MPa, 1,6 MPa and 2,5 MPa) —
Plug connecting dimensions, specifications,
application guidelines and testing**

*Transmissions pneumatiques — Raccords rapides cylindriques pour pressions maximales
d'utilisation 10 bar, 16 bar et 25 bar (1 MPa, 1,6 MPa et 2,5 MPa) — Dimensions de
raccordement de la partie mâle, spécifications, conseils d'utilisation et essais*

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6150 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Pneumatic fluid power — Cylindrical quick-action couplings for maximum working pressures of 10 bar, 16 bar and 25 bar (1 MPa, 1,6 MPa and 2,5 MPa) — Plug connecting dimensions, specifications, application guidelines and testing

0 Introduction

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

Quick-action couplings are used to join or separate fluid conducting lines quickly without the use of tools or special devices.

1 Scope and field of application

This International Standard lays down the dimensions and tolerances so as to ensure the interchangeability of pneumatic quick-action coupling plugs. It also lays down specifications and application guidelines, and specifies the tests to be applied to the plugs together with sockets.

NOTE — The construction and dimensions of sockets are left to the manufacturer's option.

This International Standard applies to cylindrical quick-action couplings for maximum working pressures of 10 bar¹⁾, 16 bar and 25 bar (1 MPa, 1,6 MPa and 2,5 MPa) for use in pneumatic fluid power systems.

NOTE — Quick-action couplings with shut-off valves for equipment for welding, cutting and related processes are covered by ISO 7289, *Quick-action couplings with shut-off valve for welding, cutting and allied processes*.²⁾

This International Standard applies only to the dimensional criteria of products manufactured in accordance with this International Standard. It does not apply to their functional characteristics.

2 References

ISO 3768, *Metallic coatings — Neutral salt spray test (NSS test)*.

ISO 4399, *Fluid power systems and components — Connectors and associated components — Nominal pressures*.

ISO 4414, *Pneumatic fluid power — Recommendations for the application of equipment to transmission and control systems*.

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

3 Definitions

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

maximum working pressure: The maximum pressure at the coupling in a system.

4 Dimensions and tolerances

4.1 Cylindrical quick-action couplings for pneumatic fluid power systems are classified according to their maximum working pressure into the following three different series:

- **Series A:** Cylindrical quick-action couplings for a maximum working pressure of 10 bar (1 MPa).
- **Series B:** Cylindrical quick-action couplings for a maximum working pressure of 16 bar (1,6 MPa).
- **Series C:** Cylindrical quick-action couplings for a maximum working pressure of 25 bar (2,5 MPa).

4.2 Tables 1 to 3 and figures 1 to 3 are only concerned with the dimensions and tolerances of the plug. The socket is left to the manufacturer's option; the same condition applies to the plug end for connection to either a component, or a pipe or hose.

1) 1 bar = 0,1 MPa = 10⁵ Pa; 1 Pa = 1 N/m²

2) At present at the stage of draft.