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# INTERNATIONAL STANDARD



# 4399

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Fluid power systems and components – Connectors and associated components – Nominal pressures

*Transmissions hydrauliques et pneumatiques – Raccords et éléments associés – Pressions nominales*

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**Descriptors** : fluid power, hydraulic fluid power, pneumatic fluid power, pipe fittings, ratings, pressure.

## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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.

International Standard ISO 4399 was developed by Technical Committee ISO/TC 131, *Fluid power systems and components*, and was circulated to the member bodies in January 1976.

It has been approved by the member bodies of the following countries :

Belgium	Korea, Rep. of	Sweden
Bulgaria	Mexico	Switzerland
Finland	Netherlands	Turkey
Germany	Poland	U.S.S.R.
Hungary	Romania	Yugoslavia
Italy	South Africa, Rep. of	
Japan	Spain	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Australia  
Austria  
France  
United Kingdom

# Fluid power systems and components – Connectors and associated components – Nominal pressures

## 0 INTRODUCTION

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within a circuit. Systems and components are generally designed and marketed for a specific fluid pressure.

Components are interconnected through their ports and associated fluid conductor fitting ends.

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard establishes a selection of nominal pressures for hydraulic and pneumatic fluid power connectors and associated components.

NOTE – There may be a need to provide a selection of nominal pressures for connectors and associated components used in applications where the external pressure on the components is greater than the internal pressure, for example vacuum service. A document which deals with this subject will be established in due course.

## 2 REFERENCES

ISO 2944, *Fluid power systems and components – Nominal pressures*.

ISO 5598, *Fluid power – Vocabulary*.<sup>1)</sup>

## 3 DEFINITIONS

**3.1 nominal pressure:** A pressure value assigned to a component or a system for the purpose of convenient designation.

NOTE – This designation is the same as that used in ISO 2944 and is intended solely to complete this International Standard. A more comprehensive definition for general purposes may be established subsequently.

**3.2** For definitions of other terms used, see ISO 5598.

## 4 UNITS

**4.1** The pressure unit used is the bar.

$$1 \text{ bar} = 100 \text{ kPa}^* \approx 14.5 \text{ lbf/in}^2$$

**4.2** Express nominal pressures as "pressure of ... bar".

**4.3** Assume the nominal pressure to be "gauge" pressure (i.e. the pressure above atmospheric) when no modifier is given.

**4.4** Select any other values required from ISO 2944.

## 5 NOMINAL PRESSURES

Select from values in the table.

TABLE – Nominal pressures –  
Gauge pressures in bars

2,5
6,3
10
16
25
40
100
160
(200)
250
(315)
400
630

NOTE – Non-preferred values are in parentheses.

**6 IDENTIFICATION STATEMENT** (Reference to this International Standard)

Use the following statement in test reports, catalogues and sales literature when electing to comply with this International Standard :

"Nominal pressures selected from ISO 4399, *Fluid power systems and components – Connectors and associated components – Nominal pressures*".

1) In preparation.

\* 1 Pa = 1 N/m<sup>2</sup>

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