STANDARD 10372

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Hydraulic fluid power — Four- and five-port servovalves — Mounting surfaces

Transmissions hydrauliques — Servodistributeurs à quatre et cinq orifices — Plans de pose

Reference number
ISO 10372:1992(E)

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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10372 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Sub-Committee SC 5, *Control products and components*.

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Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. Typical components found in such systems include servovalves.

Hydraulic fluid power — Four- and five-port servovalves — Mounting surfaces

1 Scope

This International Standard specifies the dimensions of surfaces on which servovalves are mounted in order to ensure interchangeability.

It applies primarily to electrohydraulic flow-control servovalves which represent current industrial practice. It is applicable to four-port servovalves and also to five-port types, i.e. those in which the pilot stage is supplied with hydraulic fluid separately from the remaining stages. In addition, this International Standard may be used for pressure-control servovalves. If the valve is used in a three-port application, either service port (A and B) may be omitted.

Because there is no clear distinction between servovalves and certain proportional control valves in performance and/or application, the existence of this mounting surface for servovalves does not exclude the use of a mounting surface as specified in ISO 4401.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 468:1982, *Surface roughness — Parameters, their values and general rules for specifying requirements.*

ISO 1101:1983, *Technical drawings — Geometrical tolerancing — Tolerances of form, orientation, location and run-out — Generalities, definitions, symbols, indications on drawings.*

ISO 1302:1992, *Technical drawings — Method of indicating surface texture.*

ISO 4401:1980, *Hydraulic fluid power — Four-port directional control valves — Mounting surfaces.*

ISO 5598:1985, *Fluid power systems and components — Vocabulary.*

ISO 5783:1981, *Hydraulic fluid power — Code for identification of valve mounting surfaces.*

ISO 9461:1992, *Hydraulic fluid power — Identification of valve ports, subplates, control devices and solenoids.*

3 Definitions

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

4 Symbols

For the purposes of this International Standard, the following symbols apply:

— A, B, P, T and X identify ports in accordance with ISO 9461;

— F_1, F_2, F_3 and F_4 identify threaded holes for fixing screws;

— G identifies a locating pin hole;

— r_{max} identifies the mounting surface edge radius.