INTERNATIONAL STANDARD

ISO 5783

Third edition
2019-08

Hydraulic fluid power — Code for identification of valve mounting surfaces and cartridge valve cavities

Transmissions hydrauliques — Code pour l'identification des plans de pose et des logements de cartouche

Reference number
ISO 5783:2019(E)

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Published in Switzerland

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 5, *Control products and components*.

This third edition cancels and replaces the second edition (ISO 5783:1995), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the third position of the identification code has been modified in order to allow changes in referenced standards for valve mounting surfaces and cartridge valve cavities.

— the size codes 15, 16 and 17 have been added to Table 1.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. The control and regulation of the fluid are accomplished by valves which can be directly connected to fluid conductors, mounted on sub-plates, or installed as screw-in or slip-in cartridges in cavities.

Hydraulic fluid power — Code for identification of valve mounting surfaces and cartridge valve cavities

1 Scope

This document defines an identification code for hydraulic valve mounting surfaces and for hydraulic cartridge valve cavities that are defined in other International Standards (see Bibliography).

This document is not applicable to mounting surfaces and cartridge valve cavities that do not conform to these International Standards.

This document does not require that the hardware be marked with the identification code.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Identification code

The mounting surfaces or the cartridge cavities shall be designated by the five groups of numbers indicated below, written in the order given, and separated by spaced hyphens:

a) the number of the International Standard in which the mounting surface or the cartridge cavity is described;

b) two numerals representing

   — either the size of the valve mounting surface (see Clause 5),

   — or the size of the slip-in cartridge valve (see Clause 5),

   — or the cavity thread diameter of the screw-in cartridge valve;

c) two numerals as an unequivocal numbering;

   NOTE In previous editions of this document these numerals were based on the figure number in the International Standard according to a). This could lead to confusion if figures in new versions of these International Standards are deleted and thus the numeral of a certain mounting surface or cavity would change.

d) one sign, e.g. an asterisk (*) or a single number as defined in the International Standard according to a) indicating different options:

   — numeral 0 is used for the basic version,

— numerals 1 to 9 are used to indicate a chosen option;

e) two numerals indicating the year of the latest edition of the International Standard that defines the specific mounting surface or cavity.

5 Size code

A size code shall be established in accordance with Table 1 at the time a valve mounting surface or a slip-in cartridge valve cavity is first standardized, or when the codification defined in this document is first applied to an existing standard. Any subsequent changes to the main port diameter shall not affect the size code.

Table 1 — Size code

Size	Diameter of main port mm
00	0 < Ø ≤ 2,5
01	2,5 < Ø ≤ 4
02	4 < Ø ≤ 6,3
03	6,3 < Ø ≤ 8
04	8 < Ø ≤ 10
05	10 < Ø ≤ 12,5
06	12,5 < Ø ≤ 16
07	16 < Ø ≤ 20
08	20 < Ø ≤ 25
09	25 < Ø ≤ 32
10	32 < Ø ≤ 40
11	40 < Ø ≤ 50
12	50 < Ø ≤ 63
13	63 < Ø ≤ 80
14	80 < Ø ≤ 100
15	100 < Ø ≤ 125
16	125 < Ø ≤ 160
17	160 < Ø ≤ 200

6 Examples for different codes

6.1 Mounting surface

Designation of the surface for four-port hydraulic directional control valves with 11,2 mm maximum port diameter and without pilot port as described in ISO 4401:

4401– 05 – 04 – 0 – xx

In this designation, the elements have the following meaning:

4401 reference number of the relevant International Standard

05 size of the mounting surface according to the main port diameter (see Table 1 of this document)

04 unequivocal numbering according to ISO 4401

0 basic version

xx last two digits of the year of latest edition

6.2 Slip-in cartridge cavity

Designation of the cavity for two-port hydraulic slip-in cartridge main system pressure-relief valves with main ports of 50 mm nominal diameter (size 11) and square flange cover as described in ISO 7368:

7368 – 11 – 10 – 1 - xx

In this designation, the elements have the following meaning:

7368 reference number of the relevant International Standard

11 size of the cavity according to the main port diameter (see Table 1 of this document)

10 unequivocal numbering according to ISO 7368

1 option number 1

xx last two digits of the year of latest edition

6.3 Screw-in cartridge cavity

Designation of the cavity of three-port screw-in cartridge valves with 27 mm cavity thread diameter, such as described in ISO 7789:

7789 – 27 – 04 – 0 - xx

In this designation, the elements have the following meaning:

7789 reference number of the relevant International Standard

27 thread diameter of screw-in cartridge

04 unequivocal numbering according to ISO 7789

0 basic version

xx last two digits of the year of latest edition