SLOVENSKI STANDARD
SIST ISO 15218:2003

01-julij-2003

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Pneumatic fluid power -- 3/2 solenoid valves -- Mounting interface surfaces

Transmissions pneumatiques -- Électrodistributeurs 3/2 -- Plan de pose

Ta slovenski standard je istoveten z: ISO 15218:2003

ICS:

23.100.50	Krmilni sestavni deli	Control components

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INTERNATIONAL STANDARD

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Pneumatic fluid power — 3/2 solenoid valves — Mounting interface surfaces

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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 15218 was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 5, *Control products and components*.

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Pneumatic fluid power — 3/2 solenoid valves — Mounting interface surfaces

1 Scope

This International Standard specifies the dimensions of 3/2 solenoid valves for four sizes of mounting interface surfaces, with three holes for flow passages, two holes for fixing screws and requirements for a sealing surface, for use at a maximum rated pressure of 1,6 MPa (16 bar[1]).

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 1302, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 4287, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

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

ISO 11727, *Pneumatic fluid power — Identification of ports and control mechanisms of control valves and other components*

3 Terms and definitions

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

4 Port identification

Identify the port in accordance with ISO 11727. Marking at the interface is not required.

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1) 1 bar $= 10^5$ Pa $= 100$ kPa $= 0,1$ MPa; 1 Pa $= 1$ N/m^2

1

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5 Dimensions

5.1 Dimensions and tolerances

Requirements for dimensions and tolerances for sizes 10 mm, 15 mm and 22 mm are shown in Figure 1 and given in Table 1. Requirements for dimensions and tolerances for size 30 mm are shown in Figures 2 and 3.

Any tolerances not specified shall be in accordance with ISO 2768-1.

5.2 Tolerances on surface conditions

Tolerances on surface conditions of the area within the continuous lines in Figures 1, 2 and 3 shall be as follows:

— Surface roughness: $Ra = 1,6$ µm (see ISO 4287 and ISO 1302);

— Surface flatness: 0,05 mm for the whole surface on sizes 10 mm, 15 mm, 22 mm, and 0,1 mm on size 30 mm.

5.3 Interface for 3/2 solenoid valves of widths 10 mm, 15 mm and 22 mm

See Figure 1 and Table 1.

5.4 Interface for 3/2 solenoid valves of width 30 mm

5.4.1 With exhaust port

See Figure 2.

#### 5.4.2 Non-collectable exhaust

See Figure 3.

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:

"Mounting interface surfaces of 3/2 pneumatic solenoid valves conform to ISO 15218:2002, *Pneumatic fluid power — 3/2 solenoid valves — Mounting interface surfaces*."

Dimensions in millimetres

1

2

B max.

B min.

C

C

3 × ⌀A

0,2 A

1

2

3

E max.

F

F

G

D max.

1

2

3

E min.

c

D max.

a

b

A

Y

3
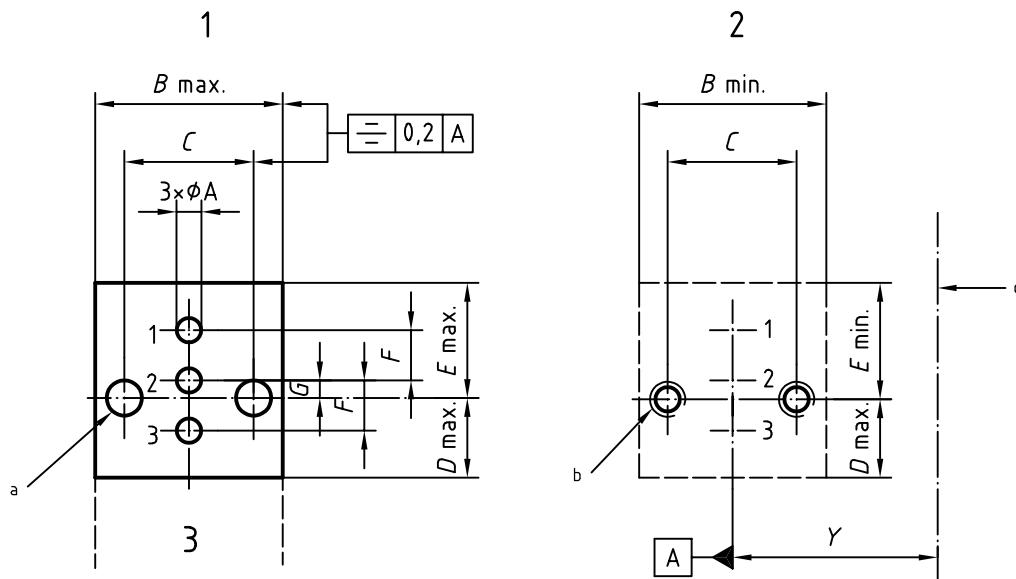
Key

1 face of the solenoid valve

2 mounting face

3 coil

a Hole for fixing screws *T* (2 ×).

b 2 × *T*, depth *P*.

c Interface axis of the identical valve.

Figure 1 — Interface for 3/2 solenoid valve of widths 10 mm, 15 mm and 22 mm

Table 1 — Dimensions

Dimensions in millimetres

Size	A		B		C	D		E		F	G	T	P	Y
	min.	max.	min.	max.	± 0,1	min.	max.	min.	max.	± 0,1	± 0,1		min.	min.
10	1,0	1,2	10,0	10,5	6,8	3,8	4,0	6,2	6,4	2,8	1	M1,6	3	11
15	1,6	2,0	15	16	9,7	6,0	6,3	9,0	9,3	3,8	1,4	M3	6	17
22	2,1	2,5	22	23	15	9,0	9,3	13,0	13,3	5,5	2	M3	7	24