

INTERNATIONAL STANDARD

ISO
15218

First edition
2003-02-15

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

*Transmissions pneumatiques — Électro distributeurs 3/2 — Plan de
pose*

STANDARDSISO.COM : Click to view the full PDF of ISO 15218:2003



Reference number
ISO 15218:2003(E)

© ISO 2003

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

STANDARDSISO.COM : Click to view the full PDF of ISO 15218:2003

© ISO 2003

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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*.

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 bar¹⁾).

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.

1) 1 bar = 10⁵ Pa = 100 kPa = 0,1 MPa; 1 Pa = 1 N/m²

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: $R_a = 1,6 \mu\text{m}$ (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

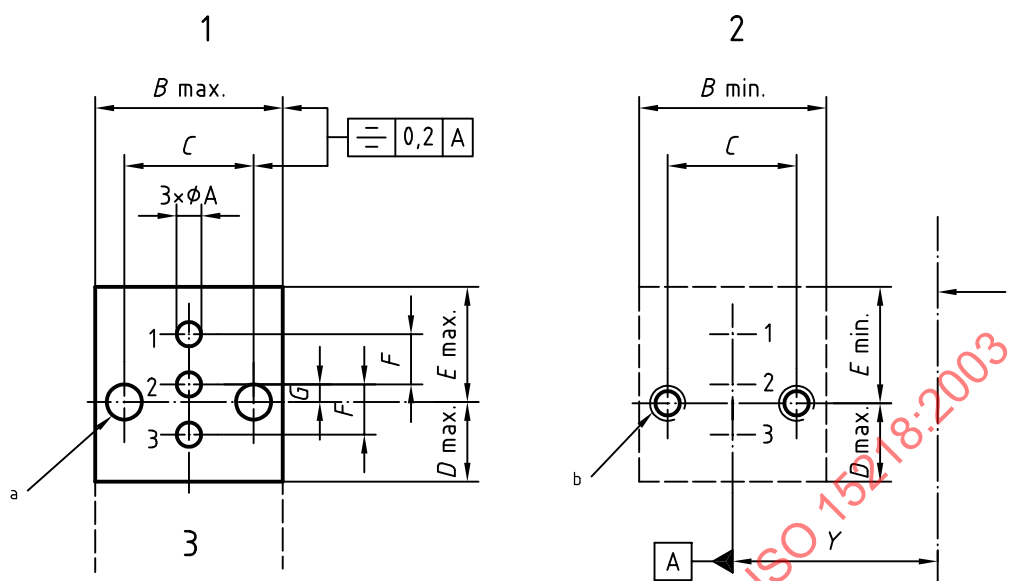
See Figure 3.

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



Key

- 1 face of the solenoid valve
- 2 mounting face
- 3 coil
- a Hole for fixing screws T (2 ×).
- b $2 \times T$, depth P .
- c Interface axis of the identical valve.

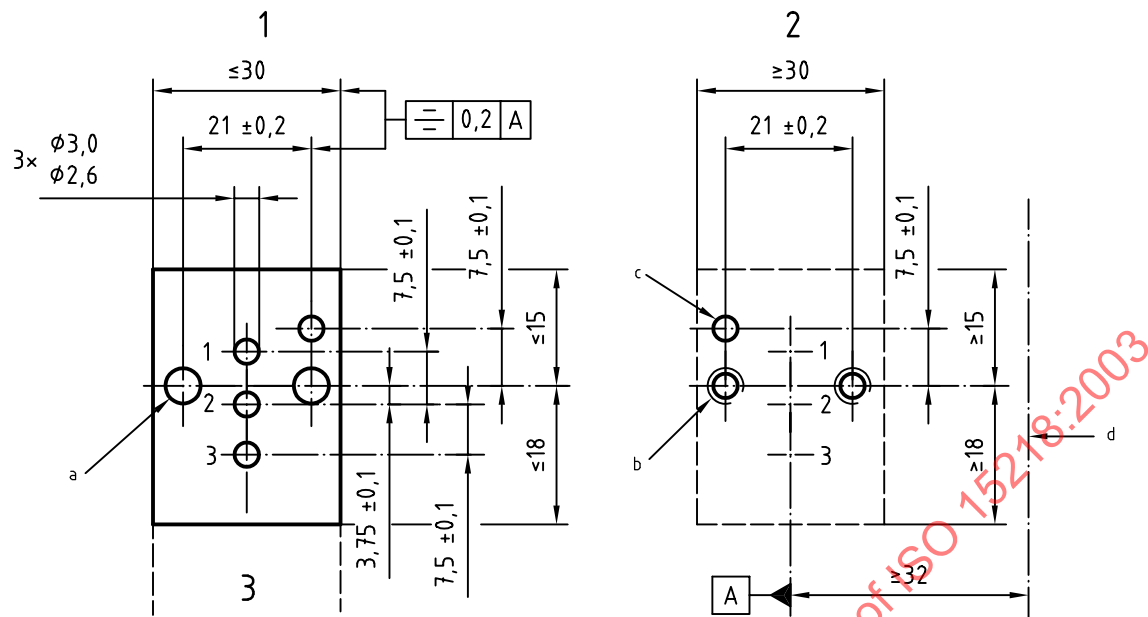
Figure 1 — Interface for 3/2 solenoid valve of widths 10 mm, 15 mm and 22 mm

Table 1 — Dimensions

Dimensions in millimetres

Size	A		B		C $\pm 0,1$	D		E		F $\pm 0,1$	G $\pm 0,1$	T	P min.	Y min.
	min.	max.	min.	max.		min.	max.	min.	max.					
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

Dimensions in millimetres



Key

- 1 face of the solenoid valve
- 2 mounting face
- 3 coil

- a Hole for fixing screws M4 (2 x).
- b 2 x M4 - 6H, minimum depth 8 mm.
- c Locating hole $\phi 3$ H13, minimum depth 3 mm.
- d Interface axis of next identical valve.

Figure 2 — Interface for 3/2 solenoid valve of width 30 mm with exhaust port