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# International Standard



# 7295

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

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## Tyre valves — Aircraft — Interchangeability dimensions

*Valves pour pneumatiques d'aéronefs — Dimensions d'interchangeabilité*

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ISO 7295-1982 (E)

## Foreword

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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 7295 was developed by Technical Committee ISO/TC 31, *Tyres, rims and valves*, and was circulated to the member bodies in July 1981.

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

Belgium	Ireland	Romania
Brazil	Israel	South Africa, Rep. of
China	Italy	Spain
Czechoslovakia	Japan	Sweden
Egypt, Arab Rep. of	Korea, Rep. of	United Kingdom
France	Netherlands	
Germany, F.R.	Poland	

The member body of the following country expressed disapproval of the document on technical grounds :

USA

# Tyre valves — Aircraft — Interchangeability dimensions

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### 1 Scope and field of application

This International Standard specifies the basic dimensional requirements for interchangeability of tyre valve core with the tyre valve stem and to permit assembly of the cap and ground inflation connection of the source of compressed air or nitrogen supply to the tyre. Functional requirements of the valve core or valve cap are excluded.

### 2 References

ISO 3877/2, *Tyres, valves and tubes — List of equivalent terms — Part 2 : Tyre valves.*

ISO 4570/1, *Tyre valve threads — Part 1 : Threads 5V1, 5V2, 6V1 and 8V1.*

ISO 7442, *Tyre valves — ISO core chamber No. 1.*

### 3 Dimensions and tolerances

**3.1** The dimensions ensuring interchangeability between the tyre valve stem, core and cap shall be in accordance with the normal commercial design of the tyre valve manufacturer.

**3.2** Figures 1 and 2 illustrate the general assembly of the stem, core and cap for both long and short cores.

**3.3** Figures 3 and 4 present dimensions essential for interchangeability between stem and cap, and stem and core. The core chamber in the valve stem shall accommodate the long valve core to ensure that both the long and short valve cores may be used as required.

**3.4** Figures 5, 6 and 7 set out the interchangeability dimensions for short and long cores of the tyre valve.

**3.5** Figure 8 presents the dimensional characteristics necessary for the cap assembly intended for a sealable connection on valves having a thread as given in figure 3 and a valve mouth as noted in note 2 of figure 3.

**3.6** Tyre valve assembled in an aircraft wheel fitted to an aircraft shall have an access space sufficient to enable connection of the ground inflation hose and connector, also for assembly of the valve core and valve cap when arctic gloves are worn. This access space shall conform to the dimensions given in the annex.

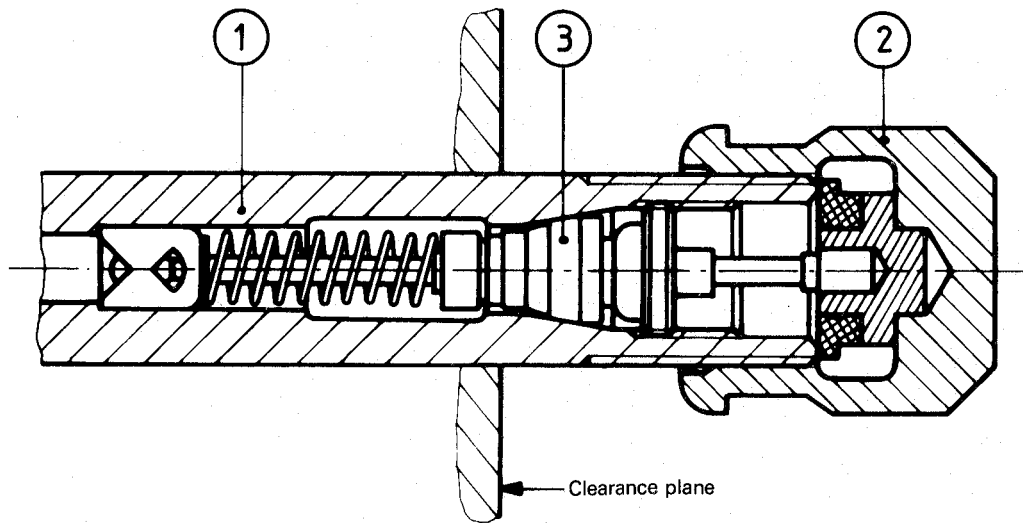


Figure 1 – General assembly – Long core

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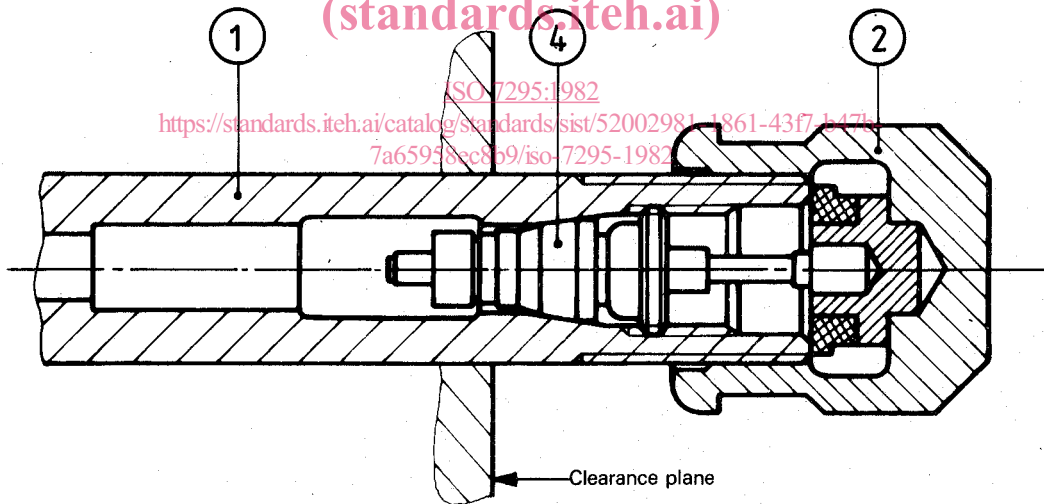
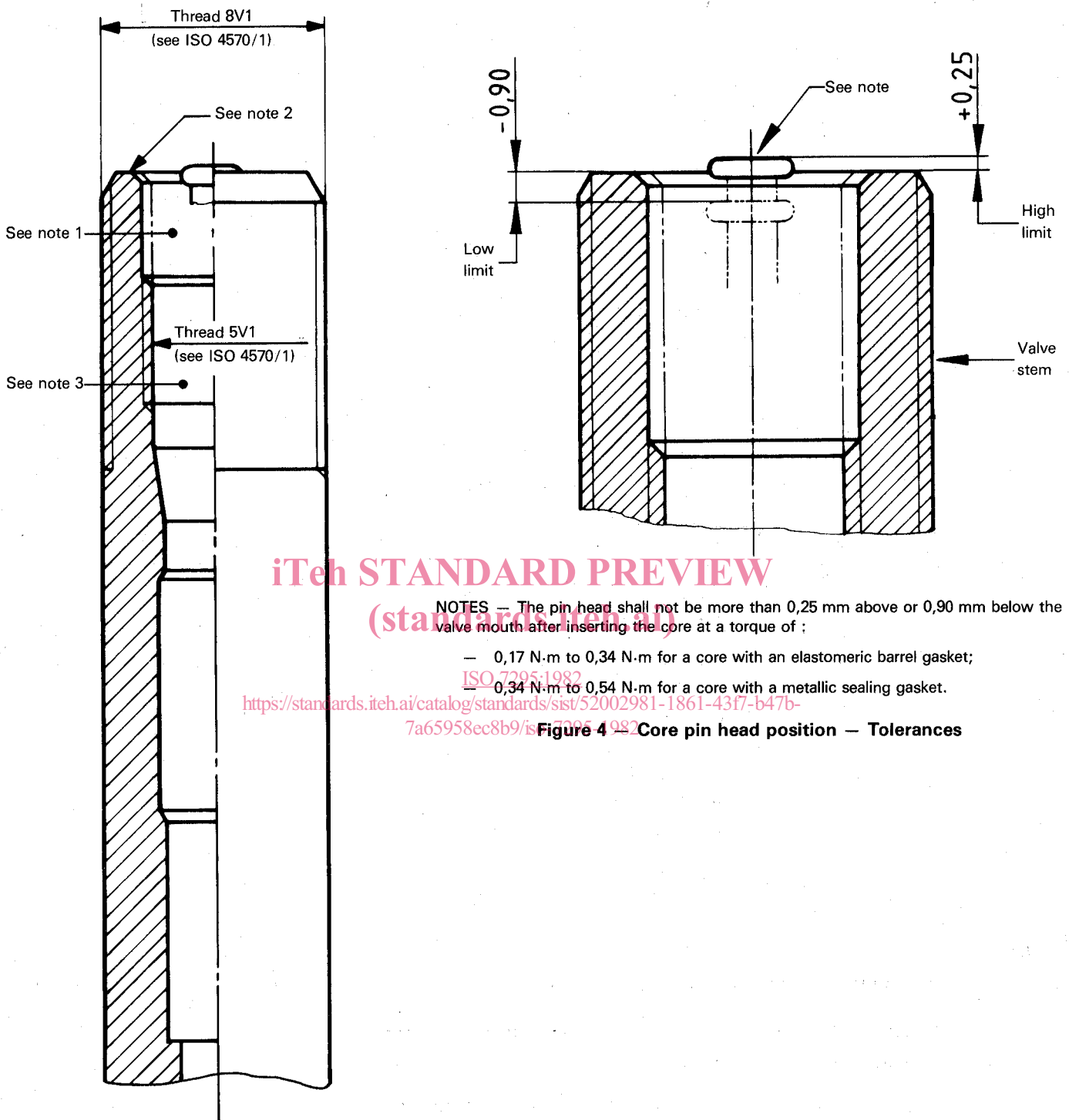


Figure 2 – General assembly – Short core

Key for figures 1 and 2

No.	Designation
1	Valve stem
2	Valve cap
3	Long valve core
4	Short valve core

Tolerances in millimetres



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NOTES — The pin head shall not be more than 0,25 mm above or 0,90 mm below the valve mouth after inserting the core at a torque of :

- 0,17 N·m to 0,34 N·m for a core with an elastomeric barrel gasket;
- 0,34 N·m to 0,54 N·m for a core with a metallic sealing gasket.

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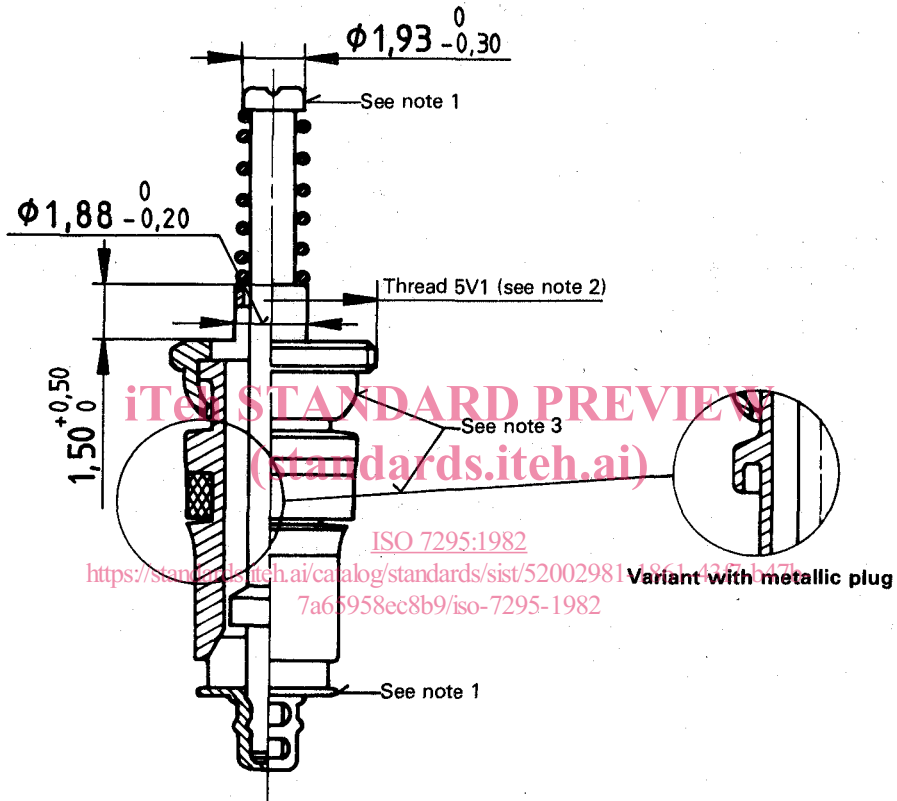
Figure 4 — Core pin head position — Tolerances

NOTES

- 1 The counterbore of the valve mouth is optional. (See annex of ISO 7442.)
- 2 The surface shall be smooth to effect sealing with the swivel gasket of the valve cap.
- 3 The valve core chamber shall conform to ISO 7442.

Figure 3 — Valve stem for both short and long cores

Dimensions in millimetres

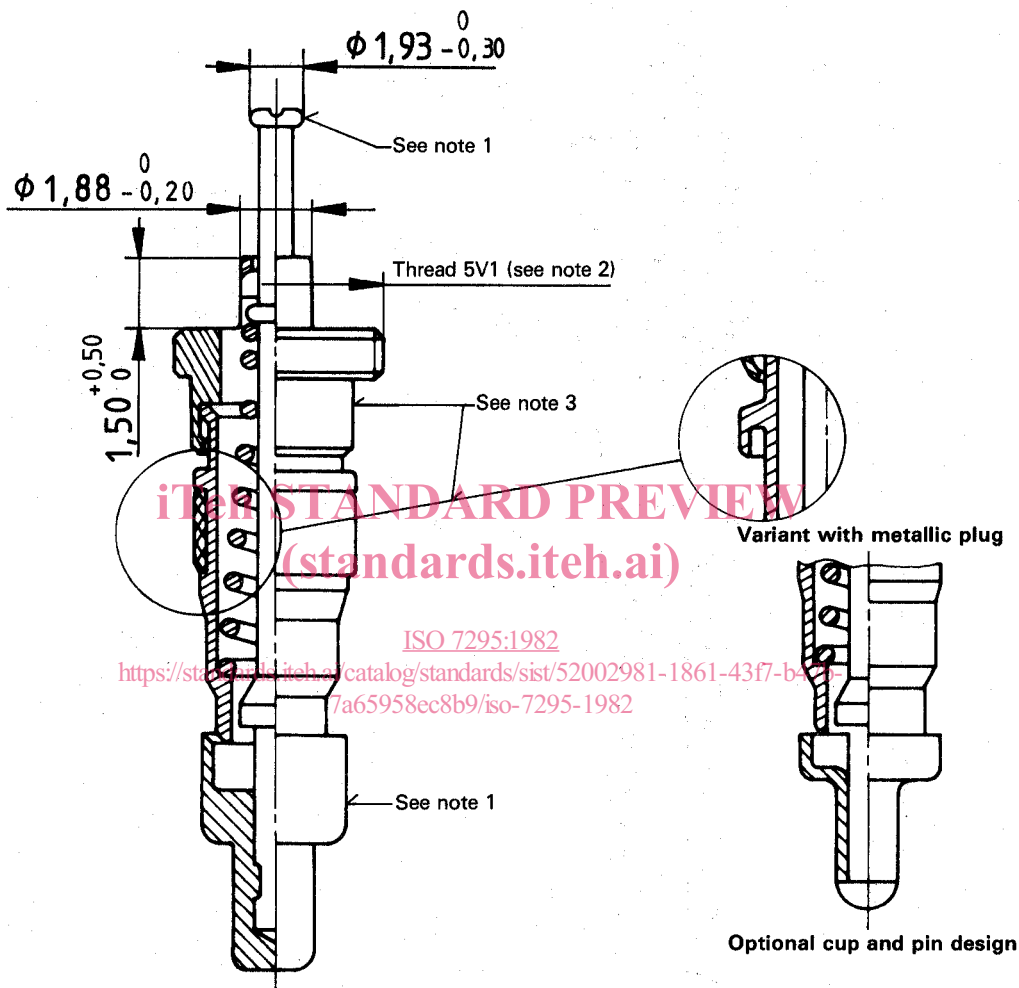


NOTES

- 1 Aircraft valve cores shall be identified by a brass or copper-coloured core pin with a groove in the pin head and by a brass or copper-coloured plunger cup.
- 2 For cores with less than four threads, apply "exception a)", of ISO 4570/1 to the 5V1 thread.
- 3 The swivel shall be rotatable in relation to the barrel.

Figure 5 — Short core with outside spring

Dimensions in millimetres

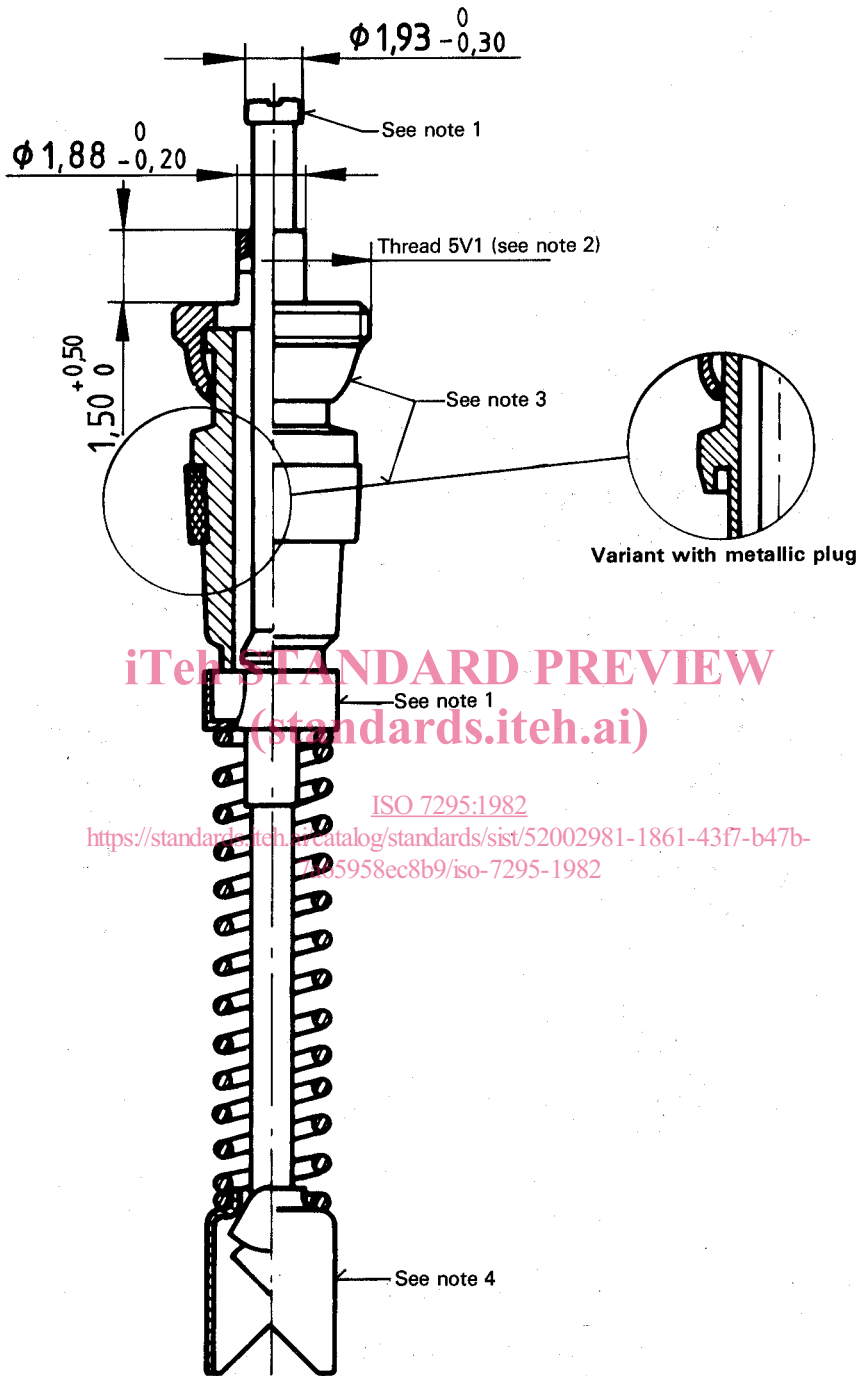


NOTES

- 1 Aircraft valve cores shall be identified by a brass or copper-coloured core pin with a groove in the pin head and by a brass or copper-coloured plunger cup.
- 2 For cores with less than four threads, apply "exception a)", of ISO 4570/1 to the 5V1 thread.
- 3 The swivel shall be rotatable in relation to the barrel.

Figure 6 — Short core with inside spring

Dimensions in millimetres

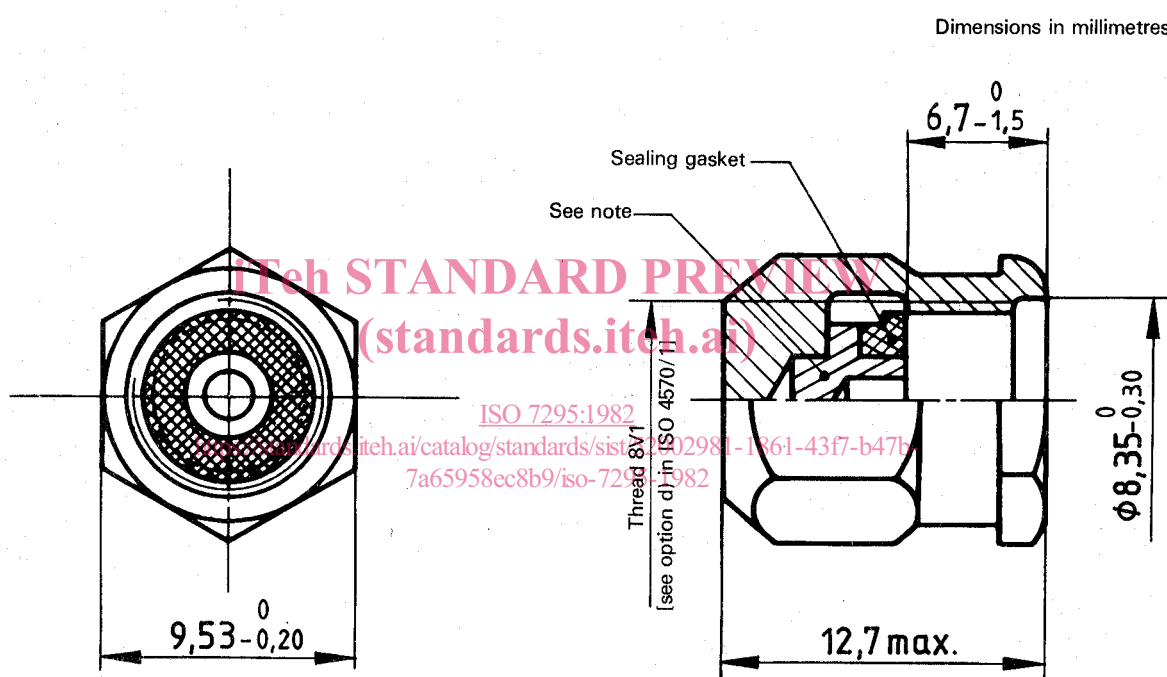


NOTES

- 1 Aircraft valve cores shall be identified by a brass or copper-coloured core pin with a groove in the pin head and by a brass or copper-coloured plunger cup.
- 2 For cores with less than four threads, apply "exception a)", of ISO 4570/1 to the 5V1 thread.
- 3 The swivel shall be rotatable in relation to the barrel.
- 4 The spring cup of the long core is optional in configuration. However, it shall fit the core chamber of the aircraft tyre valve as defined in figure 3.

Figure 7 — Long core





NOTE — The valve cap shall be fitted with a sealing gasket.

Figure 8 — Valve cap