



**SLOVENSKI STANDARD**  
**SIST EN 61122:1999**

**01-april-1999**

---

**Still video floppy disk magnetic recording system (IEC 61122:1992)**

Still video floppy disk magnetic recording system

Standbild-Video-Floppydisk-System für magnetische Aufzeichnung

Système d'enregistrement magnétique à image fixe sur disque flexible

**Ta slovenski standard je istoveten z: EN 61122:1993**

[SIST EN 61122:1999](https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999)

<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999>

**ICS:**

33.160.40      Video sistemi                      Video systems

**SIST EN 61122:1999**                      **en**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 61122:1999

<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999>

---

UDC 621.397.43

Descriptors: Magnetic recording, video recording, audio recording, data recording, magnetic disk, floppy disk, still video, recording track, physical characteristics, recording format

### ENGLISH VERSION

Still video floppy disk magnetic recording system  
(IEC 1122:1992)

Système d'enregistrement  
magnétique à image fixe sur  
disque flexible  
(CEI 1122:1992)

Standbild-Video-Floppydisk-System  
für magnetische Aufzeichnung  
(IEC 1122:1992)

---

This European Standard was approved by CENELEC on 1993-09-22.  
CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

### CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

---

© 1993 Copyright reserved to CENELEC members

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

Ref. No. EN 61122:1993 E

SIST EN 61122:1999

<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999>

#### FOREWORD

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 1122:1992 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as European Standard.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 61122 on 22 September 1993.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1994-09-01
- latest date of withdrawal of conflicting national standards (dow) 1994-09-01

For products which have complied with the relevant national standard before 1994-09-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1999-09-01.

#### ENDORSEMENT NOTICE

The text of the International Standard IEC 1122:1992 was approved by CENELEC as a European Standard without any modification.

-----

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC  
1122

Première édition  
First edition  
1992-04

---

---

Système d'enregistrement magnétique  
à image fixe sur disque flexible

iTeh STANDARD PREVIEW  
(standards.iteh.ai)  
Still video floppy disk  
magnetic recording system

SIST EN 61122:1999

<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999>

© CEI 1992 Droits de reproduction réservés — Copyright — all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

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 the publisher.

Bureau Central de la Commission Electrotechnique Internationale 3, rue de Varembé Genève, Suisse

---

---



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE XC

Pour prix, voir catalogue en vigueur  
For price, see current catalogue

## CONTENTS

	Page
FOREWORD .....	7
Clause	
1 General .....	9
1.1 Scope .....	9
1.2 Normative references .....	9
1.3 Environment .....	11
2 Jacket .....	11
2.1 Datum areas, datum holes and datum planes .....	11
2.2 Flatness of jacket .....	13
2.3 Appearance of jacket .....	15
2.4 Hub .....	19
2.5 Spindle .....	19
2.6 Shutter mechanism .....	19
2.7 Contact between disk and jacket .....	19
3 Disk .....	29
3.1 Dimensions .....	29
3.2 Physical properties of disk .....	31
3.3 Recording characteristics .....	31
3.4 Reference disk and sub-reference disk .....	35
4 Track pattern .....	35
4.1 Recording surface .....	35
4.2 Main track .....	35
4.3 Cue track .....	35
4.4 Track configuration .....	35
5 Video recording format .....	41
5.1 Frequency spectrum allocation of recording signals .....	41
5.2 Recording of luminance component .....	41
5.3 Recording of chrominance component .....	45
5.4 Time difference between luminance and chrominance signals .....	51
5.5 Multiplex recording of identification codes .....	51
5.6 Track allocation .....	57

Clause	Page
6 Audio recording format .....	61
6.1 Block diagram for audio recording .....	61
6.2 Time compression ratio .....	61
6.3 Signal arrangement .....	61
6.4 FM signal recording characteristics .....	71
6.5 Pre-emphasis and noise reduction .....	73
6.6 Control code .....	81
7 Data recording format .....	89
7.1 Channel bit rate .....	89
7.2 Formatted recording capacity .....	89
7.3 Track format .....	89
7.4 Sector format .....	91
7.5 Frame format .....	93
7.6 Sub-code .....	95
7.7 Modulation .....	97
7.8 Error detection and correction scheme .....	97
8 Cue track application format .....	127
8.1 Cue file .....	127
8.2 Directory system file .....	129
8.3 Cue track system file .....	135
8.4 Auto playback file .....	137
8.5 Text file .....	173
Annex A .....	178

iTech STANDARD PREVIEW  
(standards.iteh.ai)

[SIST EN 61122:1999](https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999)

<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999>

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

---

**STILL VIDEO FLOPPY DISK  
MAGNETIC RECORDING SYSTEM**
**FOREWORD**

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

This International Standard has been prepared by Sub-Committee 60B: Video recording of IEC Technical Committee No. 60: Recording

SYSTEM 61122:1999  
<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-61122-1999>

The text of this standard is based on the following documents:

DIS	Report on Voting
60B(CO)123	60B(CO) 133

Full information on the voting for the approval of this standard can be found in the Voting Report indicated in the above table.

Annex A is for information only.

---



## STILL VIDEO FLOPPY DISK MAGNETIC RECORDING SYSTEM

### 1 General

#### 1.1 Scope

This International Standard provides technical requirements for still video floppy disk systems which use a magnetic disk in a jacket, known as a still video floppy disk.

In these systems analogue picture, time-compressed analogue audio sounds and/or digital data information are recorded separately or together on a magnetic disk.

There are two formats of analogue recording. One is for 525 line - 60 field systems and the other for 625 line - 50 field systems. There are 50 main tracks and one cue track on the disk. Analogue picture, time-compressed sounds, and/or digital data information are recorded on the main tracks.

### iTeh STANDARD PREVIEW

(standards.iteh.ai)

The information recorded on the cue track can be used primarily for control purposes relating to the information on the main tracks.

[SIST EN 61122:1999](https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a3520af775/sist-en-61122-1999)

As far as control functions are concerned, the control functions specified on the cue track shall dominate over other control functions recorded on the main tracks.

This standard specifies physical requirements for the jacket and the magnetic disk, and magnetic requirements for the magnetic disk.

This standard also specifies the signal recording formats of analogue picture, time-compressed audio signals, digital data and control information recorded on the magnetic disk to ensure interchangeability of the recorded disk.

#### 1.2 Normative references

The following standards contain provisions which, though 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/R 527: 1966, *Plastics - Determination of tensile properties*

ASTM (American Society for Testing and Materials) Designation D 257: *Standard test methods for d.c. resistance or conductance of insulating materials.*

### 1.3 Environment

Tests and measurements made on the system to check the requirements of this standard shall be carried out under the following conditions, unless otherwise specified.

Temperature:	23 °C ± 2 °C
Relative humidity:	45 % to 55 %
Barometric pressure:	86 kPa to 106 kPa

When some discrepancy occurs in the measurement of dimensions, 20 °C ± 1 °C may be adopted.

## 2 Jacket

The jacket shall comply with the dimensions and tolerances shown in figures 1 to 8.

### 2.1 Datum areas, datum holes and datum planes

Datum plane Z shall be determined by datum areas A, B and C in figure 1. Datum plane X shall be orthogonal to datum plane Z and shall run through the centre of datum hole (a) and the centre of the centre hole of the lower shell, as shown in figure 1. Datum plane Y shall be orthogonal to both datum plane X and datum plane Z, and shall run through the centre of datum hole (a), as shown in figure 1.

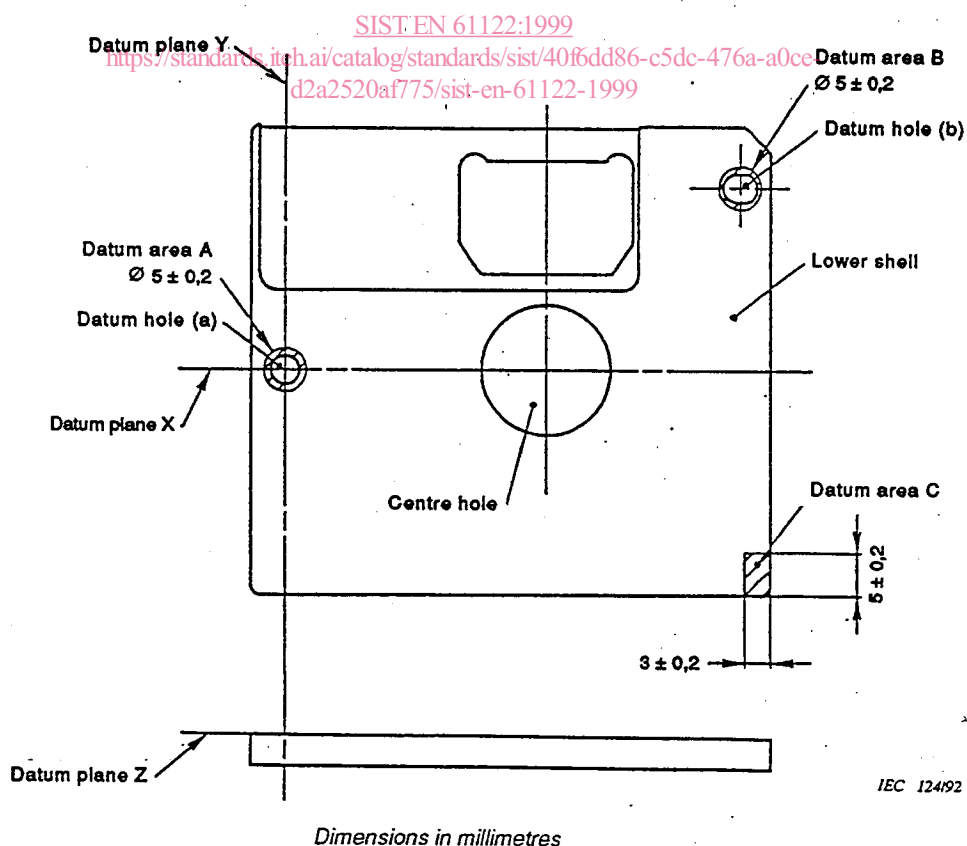
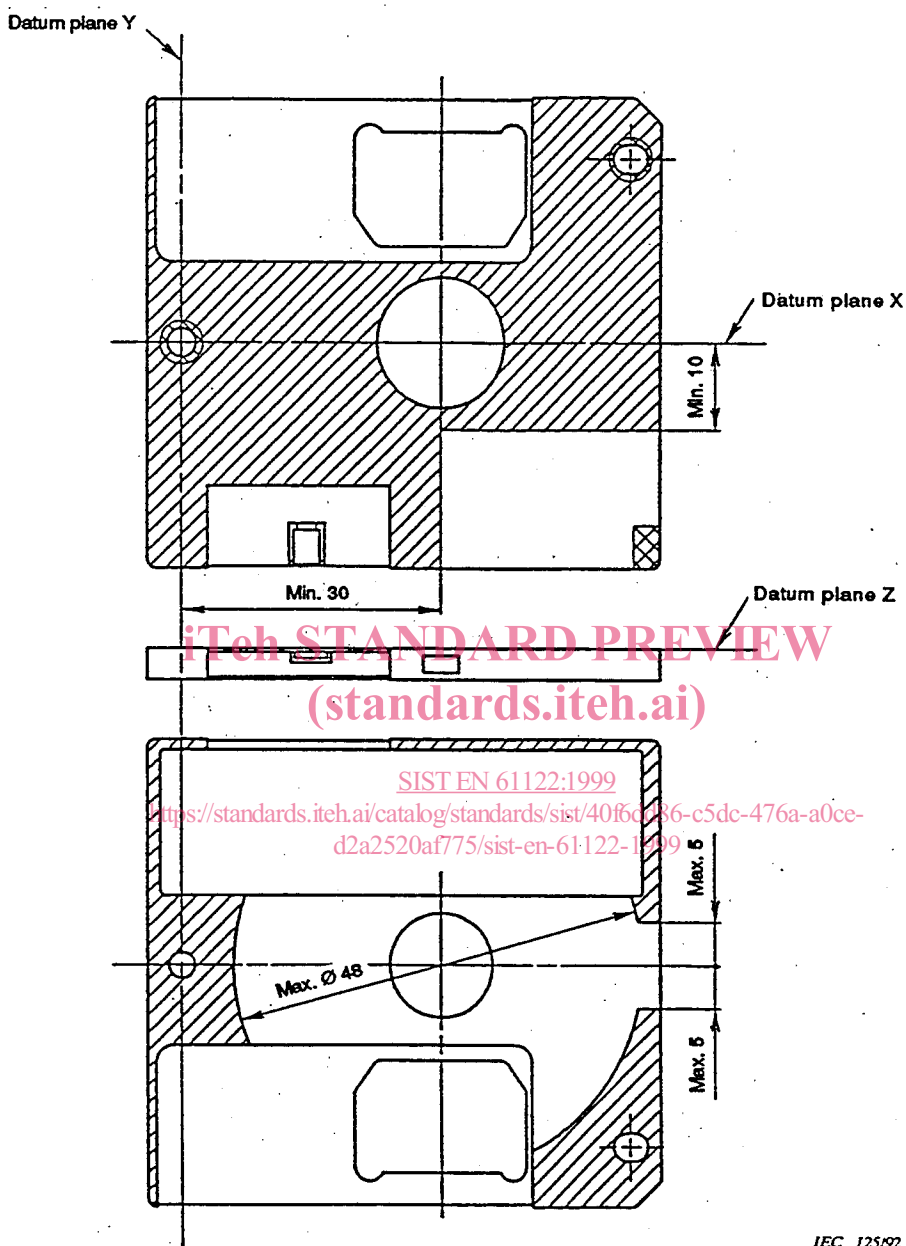


Figure 1 - Datum areas, datum holes and datum planes

2.2 Flatness of jacket

The shaded areas in figure 2 shall be coplanar to datum plane within  $\pm 0,2$  mm, except for the bevelled edges.



Dimensions in millimetres

The shaded areas in this figure shall be coplanar to datum plane Z within  $\pm 0,2$  mm, except for the bevelled edges.

There shall be no moulding gate and no moulded indication such as country of origin in the shaded areas

Figure 2 - Flatness of jacket





## 2.4 Hub

The hub shall comply with the dimensions shown in figures 5 and 6. The hub shall be provided with a spring to centre the hub, and with a PG (Pulse Generator) yoke which generates magnetic flux. The yoke shall be secured in place on the spindle by a magnet. The material of the yoke and the PG yoke shall meet the following requirements:

$$B_{800} \geq 0,45 \text{ (Wb/m}^2\text{)}$$

$$H_c \leq 480 \text{ (A/m)}$$

$$5 \times 10^{-4} \leq \mu_{\max} \text{ (H/m)} \leq 0,13$$

The area of the section of the yoke to be used for generating the flux shall be at least 0,5 mm<sup>2</sup>.

The rotational torque required to remove the magnetic sheet from the hub shall be a minimum of 0,006 Nm in the temperature range from -5 °C to +40 °C.

## 2.5 Spindle

The spindle shall comply with the dimensions shown in figure 7.

## 2.6 Shutter mechanism

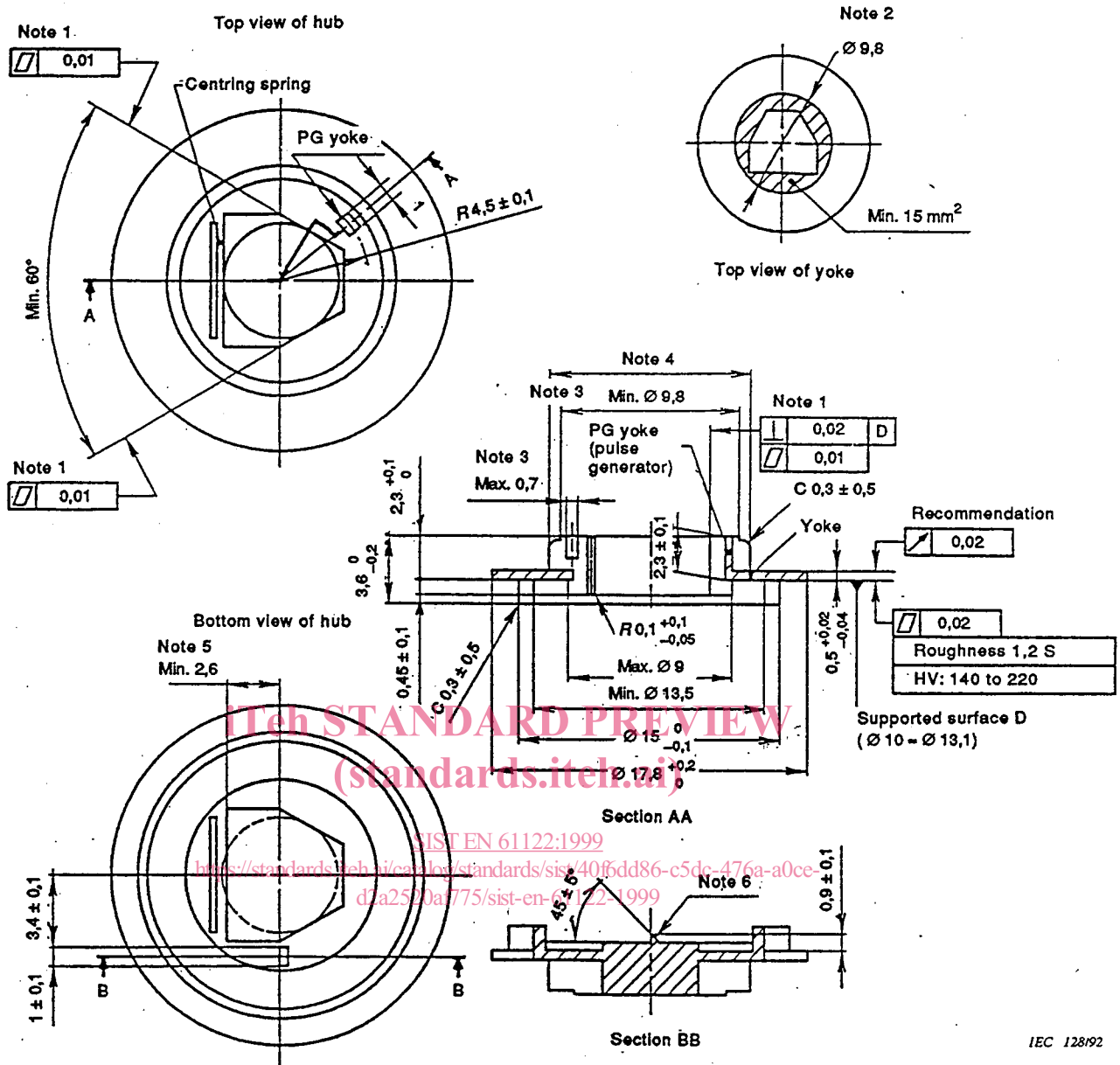
The shutter mechanism shall comply with the dimensions shown in figure 8.

The shutter automatically unlocks and opens when the jacket is inserted into the drive, and automatically closes and locks when the jacket is removed.

SIST EN 61122:1999  
<https://standards.iteh.ai/catalog/standards/sist/40f6dd86-c5dc-476a-a0ce-d2a2520af775/sist-en-61122-1999>

## 2.7 Contact between disk and jacket

When the jacket is outside the drive, the disk shall not contact the jacket in the range between Ø 17 mm and Ø 20 mm.



Dimensions in millimetres

NOTES

- 1 The flatness of the two plane surfaces which contact the spindle shall vary by no more than 0,01 mm. The two planes shall be orthogonal within  $\pm 0,02$  mm to the supported surface D of the hub. The hardness (Hv) of the two surfaces and the centring spring shall be a maximum of 300.
- 2 The area of the yoke within the  $\varnothing 9,8$  mm circle shall be at least  $15 \text{ mm}^2$ .
- 3 The drive shall press down on the upper surface of the hub (the surface within the  $\varnothing 9,8$  mm circle) to secure it on the spindle. The groove within the  $\varnothing 9,8$  mm circle shall be no wider than 0,7 mm.
- 4 This dimension is given in figure 6.
- 5 This dimension shall be measured from the centre of the spindle when the spindle is not inserted.
- 6 This protrusion is provided to prevent slippage of the hub against the spindle.

Figure 5 - Hub