



# SLOVENSKI STANDARD SIST EN ISO 7048:2001

01-julij-2001

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## Vijaki z lečasto valjasto glavo s križno zarezo (ISO 7048:1998)

Cross recessed cheese head screws (ISO 7048:1998)

Zylinderschrauben mit Kreuzschlitz (ISO 7048:1998)

Vis a métaux a tete cylindrique a empreinte cruciforme (ISO 7048:1998)

Ta slovenski standard je istoveten z: **EN ISO 7048:1998**

[SIST EN ISO 7048:2001](https://standards.iteh.ai/catalog/standards/sist/f96224b0-8de9-4783-aa67-ed855dc62f18/sist-en-iso-7048-2001)

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### **ICS:**

21.060.10      Sorniki, vijaki, stebelni vijaki      Bolts, screws, studs

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**en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN ISO 7048

June 1998

ICS 21.060.10

Descriptors: see ISO document

English version

Cross recessed cheese head screws (ISO 7048:1998)

Vis à métaux à tête cylindrique à empreinte cruciforme  
(ISO 7048:1998)

Zylinderschrauben mit Kreuzschlitz (ISO 7048:1998)

This European Standard was approved by CEN on 7 June 1998.

CEN 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 CEN 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 CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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## Foreword

The text of the International Standard ISO 7048:1998 has been prepared by Technical Committee ISO/TC 2 "Fasteners" in collaboration with Technical Committee CEN/TC 185 "Threaded and non-threaded mechanical fasteners and accessories", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 1998, and conflicting national standards shall be withdrawn at the latest by December 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

**NOTE FROM CEN/CS:** The foreword is susceptible to be amended on reception of the German language version. The confirmed or amended foreword, and when appropriate, the normative annex ZA for the references to international publications with their relevant European publications will be circulated with the German version.

## Endorsement notice

The text of the International Standard ISO 7048:1998 has been approved by CEN as a European Standard without any modification.

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# INTERNATIONAL STANDARD

# ISO 7048

First edition  
1998-06-15

Corrected and reprinted  
1999-02-01

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## Cross recessed cheese head screws

*Vis à métaux à tête cylindrique à empreinte cruciforme*

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Reference number  
ISO 7048:1998(E)

**ISO 7048:1998(E)****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.

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.

International Standard ISO 7048 was prepared by Technical Committee ISO/TC 2, *Fasteners*.

Annex A of this International Standard is for information only.

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# Cross recessed cheese head screws

## 1 Scope

This International Standard specifies the characteristics of cross recessed cheese head screws in product grade A, with threads from M2,5 to M8 inclusive and with cross recesses type H and Z.

NOTE — The head dimensions of these screws are identical with those of the slotted cheese head screws to ISO 1207:1992.

If, in special cases, specifications others than those listed in this International Standard are required, they should be selected from existing International Standards, for example ISO 261, ISO 888, ISO 898-1, ISO 965-2, ISO 3506-1, ISO 4759-1.

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## 2 Normative references

The following standards contain provisions which, through 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 225:1983, *Fasteners — Bolts, screws, studs and nuts — Symbols and designations of dimensions.*

ISO 261:1998, *ISO general-purpose metric screw threads — General plan.*

ISO 888:1976, *Bolts, screws and studs — Nominal lengths and thread lengths for general purpose bolts.*

ISO 898-1:—<sup>1)</sup>, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs.*

ISO 965-2:1998, *ISO general purpose metric screw threads — Tolerances — Part 2: Limits of sizes for general purpose external and internal screw threads — Medium quality.*

ISO 3269:1988, *Fasteners — Acceptance inspection.*

ISO 3506-1:1997, *Mechanical properties of corrosion-resistant stainless steel fasteners — Part 1: Bolts, screws and studs.*

ISO 4042:—<sup>2)</sup>, *Fasteners — Electroplated coatings.*

1) To be published. (Revision of ISO 898-1:1988)

2) To be published. (Revision of ISO 4042:1989)

ISO 4757:1983, *Cross recesses for screws.*

ISO 4759-1:—<sup>3)</sup>, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C.*

ISO 6157-1:1988, *Fasteners – Surface discontinuities — Part 1: Bolts, screws and studs for general requirements.*

ISO 8839:1986, *Mechanical properties of fasteners — Bolts, screws, studs and nuts made of non-ferrous metals.*

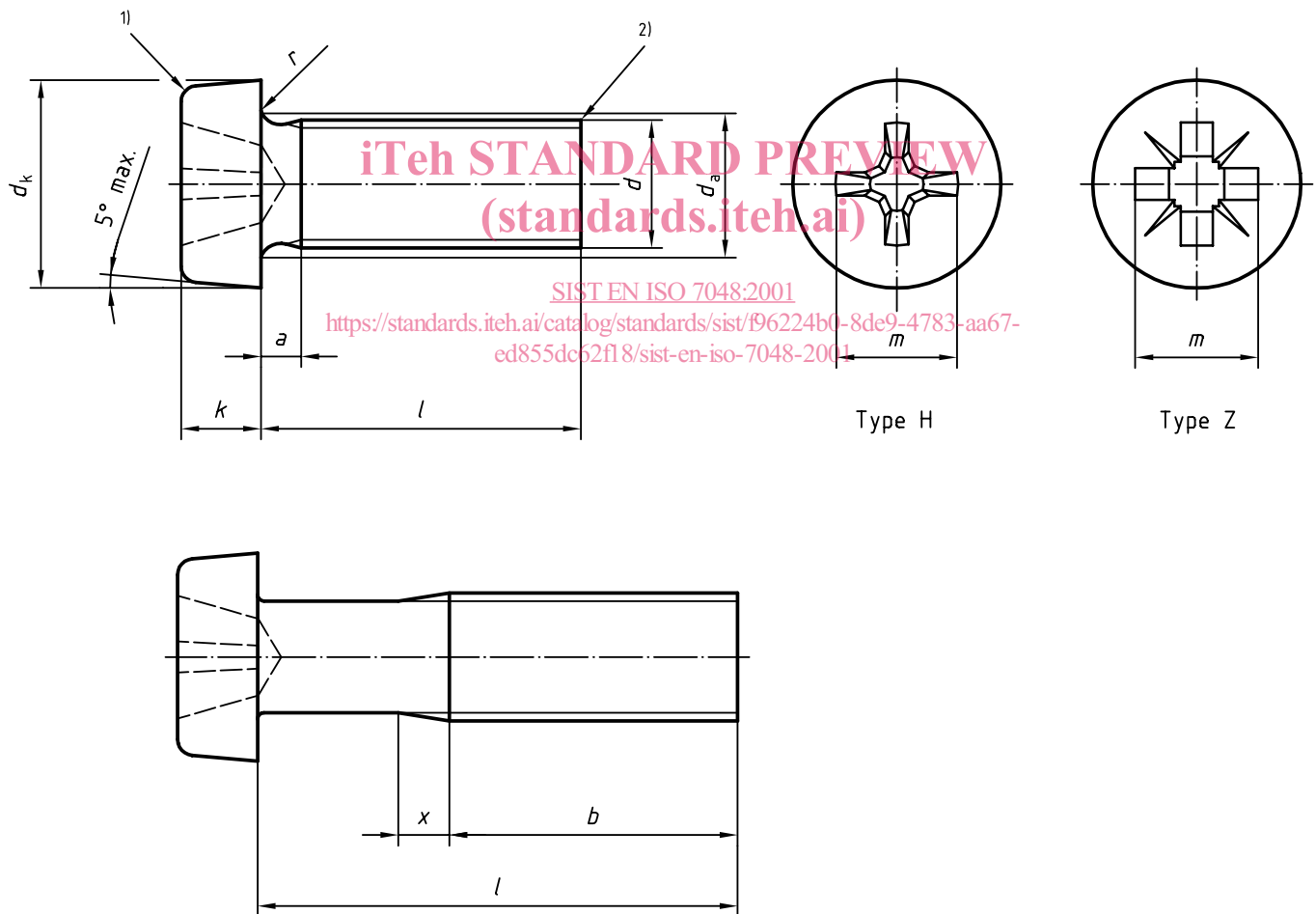
ISO 8992:1986, *Fasteners — General requirements for bolts, screws and nuts.*

### 3 Dimensions

See figure 1 and table 1.

Shank diameter is approximately equal to pitch diameter or equal to major thread diameter permissible.

The symbols and specifications for dimensions are specified in ISO 225.



- 1) Edge may be rounded or flat
- 2) As rolled end

**Figure 1**

<sup>3)</sup> To be published. (Revision of ISO 4759-1:1978)



Table 1 — Dimensions

Dimensions in millimeters

Thread ( <i>d</i> )		M2,5	M3	(M3,5) <sup>1)</sup>	M4	M5	M6	M8		
<i>p</i> <sup>2)</sup>		0,45	0,5	0,6	0,7	0,8	1	1,25		
<i>a</i>	max.	0,9	1	1,2	1,4	1,6	2	2,5		
<i>b</i>	min.	25	25	38	38	38	38	38		
<i>d<sub>k</sub></i>	max.	4,50	5,50	6,00	7,00	8,50	10,00	13,00		
	min.	4,32	5,32	5,82	6,78	8,28	9,78	12,73		
<i>d<sub>a</sub></i>	max.	3,1	3,6	4,1	4,7	5,7	6,8	9,2		
<i>k</i>	max.	1,80	2,00	2,40	2,60	3,30	3,9	5,0		
	min.	1,66	1,86	2,26	2,46	3,12	3,6	4,7		
<i>r</i>	min.	0,1	0,1	0,1	0,2	0,2	0,25	0,4		
<i>x</i>	max.	1,1	1,25	1,5	1,75	2	2,5	3,2		
Cross recess	Recess No.		1	2	2	2	2	3	3	
	Type	<i>m</i> ref.	2,7	3,5	3,8	4,1	4,8	6,2	7,7	
	H	Penetration min.		1,20	0,86	1,15	1,45	2,14	2,25	3,73
		max.		1,62	1,43	1,73	2,03	2,73	2,86	4,36
	Z	Type	<i>m</i> ref.	2,4	3,5	3,7	4,0	4,6	6,1	7,5
		Penetration min.		1,10	1,22	1,34	1,60	2,26	2,46	3,88
max.		1,35	1,47	1,80	2,06	2,72	2,92	4,34		
<i>l</i> <sup>3)</sup>			Approximate mass in kg per 1 000 pieces ( $\rho = 7,85 \text{ kg/dm}^3$ ) (for information only)							
nom.	min.	max.								
2	1,8	2,2								
3	2,8	3,2	0,272							
4	3,76	4,24	0,302	0,515						
5	4,76	5,24	0,332	0,560	0,786	1,09				
6	5,76	6,24	0,362	0,604	0,845	1,17	2,06			
8	7,71	8,29	0,422	0,692	0,966	1,33	2,20	3,56		
10	9,71	10,29	0,482	0,780	1,08	1,47	2,55	3,92	7,85	
12	11,65	12,35	0,542	0,868	1,20	1,63	2,80	4,27	8,49	
16	15,65	16,35	0,662	1,04	1,44	1,95	3,30	4,98	9,77	
20	19,58	20,42	0,782	1,22	1,68	2,25	3,78	5,69	11,0	
25	24,58	25,42	0,932	1,44	1,98	2,64	4,40	6,56	12,6	
30	29,58	30,42		1,66	2,28	3,02	5,02	7,45	14,2	
35	34,5	35,5			2,57	3,41	5,62	8,25	15,8	
40	39,5	40,5				3,80	6,25	9,20	17,4	
45	44,5	45,5					6,88	10,0	18,9	
50	49,5	50,5					7,50	10,9	20,6	
60	59,05	60,95						12,7	23,7	
70	69,05	70,95							26,8	
80	79,05	80,95							29,8	

NOTE — Commercial lengths are those between the stepped, continuous bold lines.

- 1) The size in parentheses should be avoided if possible.
- 2) *P* is the pitch of the thread.
- 3) Screws with nominal lengths above the dotted line are threaded up to the head ( $b = l - a$ ).