UDC 621.882.245.3.091.3

December 1986

Cross recessed pan head wood screws

DIN 7996

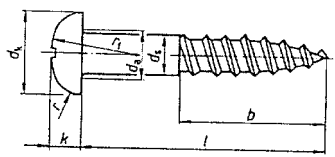
Halbrund-Holzschrauben mit Kreuzschlitz

Supersedes December 1984 edition.

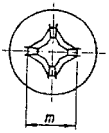
In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

Dimensions in mm

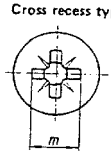
1 Dimensions



Cross recess type H



Cross recess type Z



$b \geq 0{,}6\ l$

Thread size			(2)	2,5	3	3,5	4	4,5	5	(5,5)	6	(7)	(8)
d_s	max. = nominal size		2	2,5	3	3,5	4	4,5	5	5,5	6	7	8
	min.		1,6	2,1	2,6	3,02	3,52	4,02	4,52	5,02	5,52	6,42	7,42
d_a	max.		2,8	3,3	3,8	4,3	5	5,5	6	6,6	7,2	8,2	10,2
d_k	Nominal size		4	5	6	7	8	9	10	11	12	14	16
	max.		4,38	5,38	6,38	7,45	8,45	9,45	10,45	11,55	12,55	14,55	16,55
	min.		3,62	4,62	5,62	6,55	7,55	8,55	9,55	10,45	11,45	13,45	15,45
k	Nominal size		1,4	1,7	2,1	2,35	2,8	3,1	3,5	3,8	4,2	4,9	5,6
	max.		1,6	1,9	2,3	2,6	3	3,34	3,74	4,04	4,44	5,14	5,84
	min.		1,2	1,5	1,9	2,1	2,6	2,86	3,26	3,56	3,96	4,66	5,36
r	≈		1,6	2	2,4	2,8	3,2	3,6	4	4,4	4,8	5,6	6,4
r_1	≈		3,2	4	4,8	5,6	6,4	7,2	8	8,8	9,6	11,2	12,8
Cross recess	No.		0	1			2				3		4
	type H	m ≈		2,3	2,7	3,7	4,1	4,4	4,8	6,2	6,6	7,3	8,8
		penetration depth min.		0,85	1,3	1,22	1,62	1,88	2,28	2,42	2,82	3,52	3,93
		penetration depth max.		1,15	1,6	1,72	2,12	2,38	2,78	2,92	3,32	4,02	4,43
	type Z	m ≈		2,4	2,9	3,9	4,1	4,3	4,7	6,2	6,7	7	8,5
		penetration depth min.		1,1	1,58	1,47	1,7	1,88	2,28	2,51	3,02	3,32	3,71
		penetration depth max.		1,35	1,83	1,93	2,16	2,34	2,74	2,97	3,48	3,78	4,17

Nominal size	l min	l max.	Mass (7,85 kg/dm³), in kg per 1000 units, approximately									
10	9,25	10,75	0,46	0,76	1,03							
12	11,1	12,9	0,52	0,86	1,16	1,63						
(14)	13,1	14,9										
16	15,1	16,9	0,64	1,04	1,41	1,93	2,51	3,31				
(18)	17,1	18,9										
20	19	21	0,76	1,23	1,68	2,24	2,88	3,78				
25	24	26	0,91	1,47	1,98	2,62	3,37	4,37				
30	29	31	1,06	1,7	2,29	3,01	3,85	5				
35	33,75	36,25		1,94	2,6	3,39	4,34	5,55				
40	38,75	41,25		2,18	2,91	3,77	4,83	6,14		9,17		
45	43,75	46,25			3,22	4,12	5,31	6,73		10		
50	48,75	51,25				4,5	5,8	7,32		10,8		
60	58,5	61,5					6,77	8,54		12,5		
70	68,5	71,5						9,72		14,2		
80	78,5	81,5						10,9		16		

Lengths above 80 mm shall be graded in steps of 10 mm.
Bracketed sizes should be avoided as far as possible.
The wood screws are, as a general rule, manufactured in the sizes for which the mass has been given (for guidance only).

Continued on pages 2 and 3

2 Technical delivery conditions

Material	Steel	Non-ferrous metals
General requirements	In accordance with DIN 267 Part 1.	
Threads and thread ends	In accordance with DIN 7998.	
Cross recesses	In accordance with DIN 7962.	
Material	St = steel (grade at the manufacturer's discretion)	CuZn (previously Ms) = copper-zinc alloy. Al-Leg. = aluminium alloy. (grade at the manufacturer's discretion)
	Other materials are subject to agreement.	
Limit deviations, geometrical tolerances	Product grade C (previously design g) in accordance with ISO 4759 Part 1[1]).	
Surface finish	As processed. DIN 267 Part 9 shall apply with regard to electroplating. Other types of surface protection shall be subject to agreement.	
Acceptance inspection	In accordance with DIN 267 Part 5.	

[1]) ISO 4759 Part 1 applies at present only to screws with ISO metric screw thread. The permissible deviations specified in the above standard have been adopted correspondingly for wood screws. The geometrical tolerances specified in ISO 4759 Part 1 have also been adopted for wood screws, as appropriate.

3 Designation

Designation of an M4 cross recessed pan head wood screw with l = 20 mm, in steel (St), with type H cross recess *):

Wood screw DIN 7996 – 4 x 20 – St – H

The DIN 4000 – 2 – 1 tabular layout of article characteristics shall apply to screws as specified in this standard.

Note. In previous editions of this standard, thread sizes M 2,4 and M 2,7 were included. In the March 1975 edition of this standard, these sizes were excluded from use for new designs. However, with regarded to existing drawings and documents, these sizes may temporarily continue to be ordered with a type H cross recess, in accordance with this standard. The specifications of the above-mentioned edition of the standard shall be applicable to the dimensions of these screws.

*) If symbol H or Z is absent in the designation, e.g. on existing documents based on previous editions of this standard, then cross recess type H shall be applicable. In future, the symbol identifying the cross recess type shall always be specified for new designs and in purchase order documents.

Standards referred to

DIN 267 Part 1	Fasteners; technical delivery conditions; general requirements
DIN 267 Part 5	Fasteners; technical delivery conditions; acceptance inspection (modified version of ISO 3269, 1984 edition)
DIN 267 Part 9	Fasteners; technical delivery conditions; electroplated components
DIN 4000 Part 2	Tabular layouts of article characteristics for bolts, studs and nuts
DIN 7962	Cross recesses for screws (modified version of ISO 4757)
DIN 7998	Threads and thread ends for wood screws
ISO 4759 Part 1	Fasteners; tolerances for bolts, screws and nuts with thread diameters from 1,6 (inclusive) and 150 mm (inclusive) and product grades A, B and C

Previous editions

DIN 7996: 10.53, 08.59, 03.75, 12.84.

Amendments

In comparison with the December 1984 edition, the nominal sizes for the diameter of the head, d_k, have been amended.

Explanatory notes

As a departure from DIN 7996, March 1975 edition (which was withdrawn in December 1984), the present edition specifies a second type of cross recess, viz. cross recess type Z, also referred to in practice as Pozidriv recess).

International Patent Classification

F 16 B 23/00
F 16 B 25-00