

Cross recessed raised cheese head screws

DIN
7985

Linsenschrauben mit Kreuzschlitz

Supersedes July 1986 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.

This standard should be used together with ISO 7045. For details, see Explanatory notes. It is intended to withdraw the present standard by 31 July 1995 at the latest.

Dimensions in mm

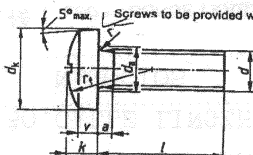
1 Scope and field of application

This standard specifies requirements for M1,6 to M10 cross recessed raised cheese head screws assigned to product grade A. See DIN 962 (or the standards referred to therein) for special features of fasteners.

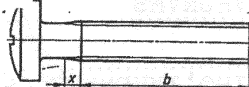
If, in special cases, screws are to comply with specifications other than those given in this standard (e.g. regarding property class or material), these shall be selected in accordance with the relevant standards.

2 Dimensions

Raised cheese head screw
threaded up to the head
(specified in table 1 above dashed line)



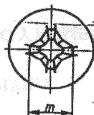
Raised cheese head screw
with unthreaded portion of shank
(specified in table 1 below dashed line)¹⁾



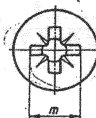
Other dimensions and details as at left.

The shank diameter may be equal to the thread diameter (normal shank) or approximately equal to the pitch diameter (reduced shank), at the manufacturer's discretion.

Cross recess type H



Cross recess type Z



¹⁾ If raised cheese head screws with lengths given below the dashed line are to be supplied with their shank threaded up to the head, letter A shall be included in the designation, in accordance with DIN 962.

Continued on pages 2 to 5

Table 1.

Thread size (d^1)		M1,6	M2	M2,5	M3	M3,5	M4	M5	M6	M8	M10	
P^2		0,35	0,4	0,45	0,5	0,6	0,7	0,8	1	1,25	1,5	
e	max.	0,7	0,8	0,9	1	1,2	1,4	1,6	2	2,5	3	
b	min.	15	16	18	19	20	22	25	28	34	40	
d_a	max.	2,1	2,6	3,1	3,6	4,1	4,7	5,7	6,8	9,2	11,2	
d_k	max. = nominal size	3,2	4	4,5	5	7	8	10	12	16	20	
	min.	2,9	3,7	4,7	5,7	6,64	7,64	9,64	11,57	15,57	19,48	
	Nominal size	1,3	1,6	2	2,4	2,7	3,1	3,8	4,6	6	7,5	
k	max.	1,42	1,72	2,12	2,52	2,82	3,25	3,95	4,75	6,15	7,68	
	min.	1,18	1,48	1,88	2,28	2,58	2,95	3,65	4,45	5,85	7,32	
f	max.	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,25	0,4	0,4	
f_1	=	3	4	5	6	7	8	10	12	16	20	
v	=	0,8	1,1	1,3	1,6	1,9	2	2,5	3	3,7	4,8	
z	max.	0,9	1	1,1	1,25	1,5	1,75	2	2,5	3,2	3,8	
Cross recess No.		0	1			2		3		4		
Cross recess	Type H	m	1,8	2,5	2,7	3,1	4,2	4,6	5,3	6,8	9	10,2
	Penetration depth	min.	0,72	1,1	1,3	1,7	1,74	2,04	2,77	3,03	4,18	5,38
		max.	1,02	1,4	1,6	2	2,24	2,54	3,27	3,53	4,68	5,88
	Type Z	m	1,8	2,4	2,6	3	4	4,3	5	6,7	8,8	9,9
Penetration depth	min.	0,92	1,1	1,27	1,68	1,65	1,9	2,64	3,02	4,06	5,23	
	max.	1,17	1,35	1,52	1,93	2,11	2,36	3,1	3,48	4,52	5,69	
Nominal size	$l^1, 3^3$		Approximate mass (7,85 kg/dm ³), per 1000 units, in kg									
	min.	max.										
2	1,8	2,2	0,085	0,156								
3	2,8	3,2	0,097	0,175	0,341							
4	3,75	4,25	0,108	0,194	0,370	0,635						
5	4,75	5,25	0,120	0,212	0,399	0,675	0,99	1,41				
6	5,75	6,25	0,132	0,231	0,428	0,714	1,05	1,48	2,66			
8	7,7	8,3	0,155	0,268	0,486	0,793	1,17	1,63	2,91			
10	9,7	10,3	0,178	0,308	0,544	0,872	1,29	1,79	3,18	5,14	10,9	
12	11,65	12,35	0,201	0,343	0,602	0,951	1,42	1,94	3,41	5,49	11,5	21,2
(14)	13,65	14,35	0,225	0,380	0,660	1,03	1,54	2,09	3,66	5,84	12,2	22,2
16	15,65	16,35	0,248	0,418	0,718	1,11	1,67	2,25	3,91	6,19	12,8	23,2
(18)	17,65	18,35		0,455	0,776	1,19	1,79	2,41	4,16	6,54	13,5	24,2
20	19,6	20,4		0,492	0,834	1,27	1,92	2,56	4,41	6,89	14,2	25,2
(22)	21,6	22,4			0,912	1,35	2,05	2,72	4,66	7,24	14,8	26,2
25	24,6	25,4			0,999	1,47	2,25	2,94	5,03	7,77	15,8	27,7
(28)	27,6	28,4			1,09	1,59	2,48	3,24	5,41	8,29	16,8	29,2
30	29,6	30,4			1,15	1,71	2,63	3,44	5,68	8,64	17,5	30,2
35	34,5	35,5					3,01	3,94	6,43	9,52	19,1	32,7
40	39,5	40,5						4,44	7,18	10,5	20,7	35,7
45	44,5	45,5							7,93	11,4	22,3	37,7
50	49,5	50,5							8,68	12,3	23,9	41,2
55	54	56									25,5	43,7
60	59	61									27,1	46,2

1) Use of sizes given in brackets should be avoided where possible.
2) P = pitch of coarse thread.
3) Screws with lengths above the dashed line are threaded up to the head ($h = l - a$).
Lengths over 60 mm shall be g raded in 10 mm steps.
For commercial lengths (given between stepped lines), values of mass have been specified.