

# Hexagon set screws with small hexagon and full dog point

**DIN**  
**561**

ICS 21.060.10

Supersedes February 1985 edition.

Descriptors: Fasteners, screws, set screws.

Sechskantschrauben mit Zapfen und kleinem Sechskant

*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 Scope and field of application

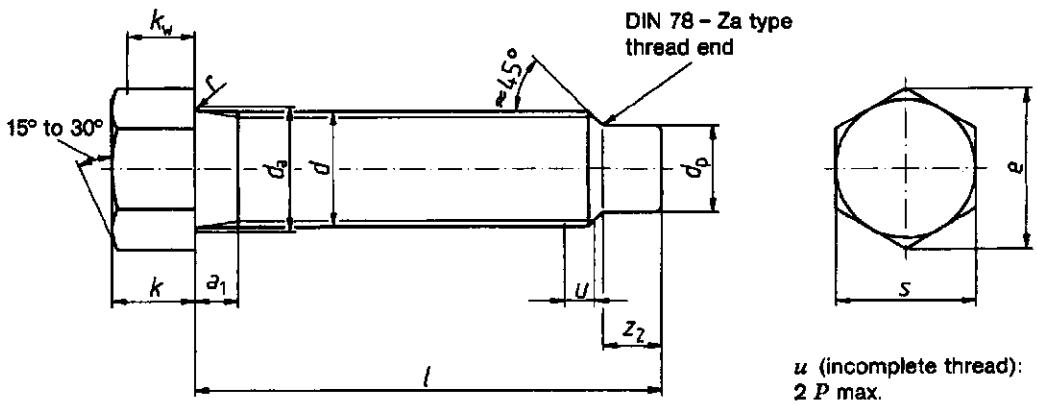
This standard specifies dimensions and technical delivery conditions for coarse and fine pitch thread M6 to M56 hexagon set screws with small hexagon and full dog point, assigned to product grade A. These screws are only to be used as forcing screws (i.e. for adjusting and locating purposes when there is considerable resistance to motion).

NOTE: For sizes M12 and M16 screws, this standard specifies widths across flats which are in current use, i.e. 16 mm and 18 mm, in accordance with ISO 272. Specifications for obsolete widths across flats (17 mm and 19 mm) are provided in Appendix A.

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

Continued on pages 2 to 5.

## 2 Dimensions



$k_w$  is the minimum wrenching height;  $e$  shall be maintained within  $k_w$ .  
 $a_1$  as in DIN 76-1,  $d_p$  and  $z_2$  as in DIN 78.

Table 1: Dimensions

Thread size	M6	M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	M56	
	—	—	—	—	—	M20 × 2	M24 × 2	M30 × 2	M36 × 3	M42 × 3	M48 × 3	M56 × 3	
$P^1)$	1	1,25	1,5	1,75	2	2,5	3	3,5	4	4,5	5	5,5	
$a_1$ max.	3	3,75	4,5	5,25	6	7,5	9	10,5	12	13,5	15	16,5	
$d_2$ max.	6,8	9,2	11,2	13,7	17,7	22,4	26,4	33,4	39,4	45,6	52,6	63	
$d_p$	max. = nominal size	4	5,5	7	8,5	12	15	18	23	28	32	38	45
	min.	3,82	5,32	6,78	8,28	11,73	14,73	17,73	22,67	27,67	31,61	37,61	44,61
$e$ min.	8,79	11,05	14,38	17,77	19,92	26,75	33,53	39,98	51,28	61,31	72,61	83,91	
$k$	Nominal size	5	6	7	9	11	14	17	21	25	30	34	40
	min.	4,85	5,85	6,82	8,82	10,79	13,79	16,79	20,74	24,74	29,74	33,69	39,69
	max.	5,15	6,15	7,18	9,18	11,21	14,21	17,21	21,26	25,26	30,26	34,31	40,31
$k_w$ min.	3,4	4,1	4,8	6,2	7,6	9,7	11,8	14,5	17,3	20,8	23,6	27,8	
$r$ min.	0,25	0,4	0,4	0,6	0,6	0,8	0,8	1	1	1,2	1,6	2	
$s$	max. = nominal size	8	10	13	16	18	24	30	36	46	55	65	75
	min.	7,78	9,78	12,73	15,73	17,73	23,67	29,67	35,38	45,38	54,26	64,26	74,26
$z_2$	min. = nominal size	3	4	5	6	8	10	12	15	18	21	24	28
	max.	3,25	4,3	5,3	6,3	8,36	10,36	12,43	15,43	18,43	21,52	24,52	28,52

<sup>1)</sup>  $P$  = pitch of thread (coarse pitch thread).

(continued)