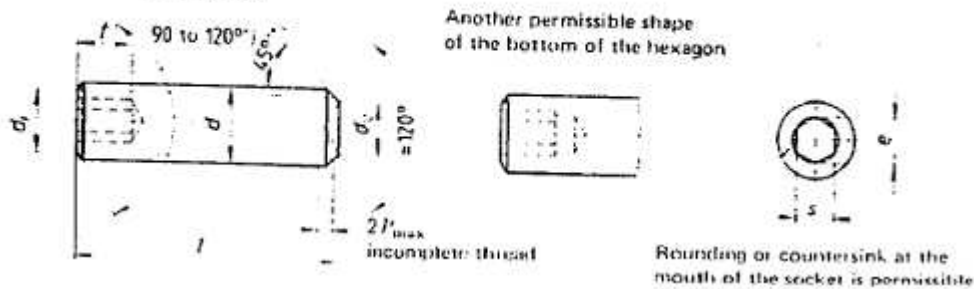


# Hexagon socket set screws with cup point

ISO 4029 modified

## 2 Dimensions and designation



Thread size <i>d</i>			M 1,4	M 1,6	(M 1,8)	M 2	M 2,5	M 3	M 4	M 5	M 6
<i>P</i> <sup>1)</sup>			0,3	0,35	0,36	0,4	0,45	0,5	0,7	0,8	1
<i>d<sub>v</sub></i>	max.		0,7	0,8	0,9	1	1,2	1,4	2	2,5	3
	min.		0,45	0,55	0,65	0,75	0,95	1,15	1,75	2,25	2,75
<i>d<sub>t</sub></i>	c		Lower limit of minor thread diameter								
<i>c</i>	min. <sup>2)</sup>		0,803	0,803	0,803	1,003	1,427	1,73	2,30	2,87	3,44
<i>s</i>	Number of starts		0,7	0,7	0,7	0,9	1,3	1,5	2	2,5	3
	min.		0,711	0,711	0,711	0,889	1,27	1,52	2,02	2,52	3,02
	max.		0,724	0,724	0,724	0,902	1,295	1,545	2,045	2,56	3,08
<i>l</i>	min. <sup>3)</sup>		0,6	0,7	0,8	0,8	1,2	1,2	1,5	2	2
	max. <sup>4)</sup>		1,4	1,5	1,6	1,7	2	2	2,5	3	3,5
<i>l</i>			Weight (7,85 kg/dm <sup>3</sup> ) kg per 1000 pieces ≈								
Nominal size	min	max									
2	1,80	2,20									
2,5	2,30	2,70	0,018	1,029	0,030						
3	2,80	3,20	0,022	0,028	0,036	0,044	0,075				
(3,5)	3,26	3,74									
4	3,76	4,24	0,029	0,037	0,048	0,059	0,100	0,140			
5	4,76	5,24	0,036	0,046	0,060	0,074	0,125	0,180	0,255	0,420	
6	5,76	6,24	0,043	0,056	0,072	0,089	0,150	0,220	0,380	0,540	0,740
8	7,71	8,29				0,119	0,199	0,310	0,530	0,780	1,09
10	9,71	10,29				0,148	0,249	0,400	0,680	1,02	1,44
12	11,65	12,35						0,490	0,830	1,26	1,79
(14)	13,65	14,35									
16	15,65	16,35						0,670	1,13	1,74	2,49
(18)	17,65	18,35									
20	19,58	20,42						0,850	1,43	1,22	3,19
(22)	21,58	22,42									
25	24,58	25,42								2,82	4,07
(28)	27,58	28,42									
30	29,58	30,42									4,95
35	34,5	35,5									5,83

For 1) to 4) see page 3

<sup>1)</sup> The 120° angle is mandatory for short length set screws above the dashed stepped line.  
<sup>2)</sup> The ≈ 45° angle applies only to the portion between the minor thread diameter and the cup point diameter *d<sub>c</sub>*.

Thread size <i>d</i>		M 8	M 10	M 12	(M 14)	M 16	(M 18)	M 20	(M 22)	M 24
<i>P</i> 1)		1,25	1,5	1,75	2	2	2,5	2,5	2,5	3
<i>d<sub>v</sub></i>	max.	5	6	8	9	10	12	14	16	18
	min.	4,7	5,7	7,64	8,64	9,64	11,57	13,57	15,57	15,57
<i>d<sub>f</sub></i> ≈		Lower limit of minor thread diameter								
<i>c</i>	min. 2)	4,58	5,72	6,86	6,86	9,15	11,43	11,43	13,72	13,72
<i>s</i>	Nominal size	4	5	6	6	8	10	10	12	12
	min.	4,02	5,02	6,02	6,02	8,025	10,025	10,025	12,032	12,032
	max.	4,095	5,095	6,095	6,095	8,115	10,115	10,115	12,142	12,142
<i>l</i>	min. 3)	3	4	4,8	5,6	6,4	7,2	8	9	10
	min. 4)	5	6	8	9	10	11	12	13,5	15
<i>l</i>		Weight (7,85 kg/dm <sup>3</sup> ) kg per 1000 pieces ≈								
Nominal size	min.	max.								
6	5,76	6,24								
8	7,71	8,29	1,88							
10	9,71	10,29	2,51							
12	11,65	12,35	3,14	4,73						
(14)	13,65	14,35								
16	15,65	16,35	4,40	6,73	9,50					
(18)	17,65	18,35								
20	19,58	20,42	5,66	8,71	12,3	20,9				
(22)	21,58	22,42								
25	24,58	25,42	7,25	11,2	15,9	27,4	41,4			
(28)	27,58	28,42								
30	29,58	30,42	8,84	13,7	19,5	34,0	51,7	70,3		
35	34,5	35,5	10,4	16,2	23,1	40,5	62,0	85,3		
40	39,5	40,5	12,0	18,7	26,7	47,1	72,3	100		
45	44,5	45,5					82,6	115		
50	49,5	50,5					92,9	130		
55	54,4	55,6						145		
60	59,4	60,6						160		
1) <i>P</i> - Pitch of the thread (normal thread) 2) $r_{\min} = 1,14 \times r_{\max}$ ; except for sizes M 1,4 to M 2,5 3) Minimum depth of key engagement for set screws with nominal sizes <i>l</i> above the dashed stepped line. 4) Minimum depth of key engagement for set screws with nominal sizes <i>l</i> below the dashed stepped line.										

The commercial sizes are marked with the weight.

Bracketed thread sizes *d* and bracketed nominal sizes *l* should be avoided wherever possible.

*Note:* In ISO 4029 the range of the commercial nominal sizes *l* is in some cases defined somewhat differently. In ISO 4029 weights are not indicated. The sizes listed in the above table marked with the weight are those customary in Germany and are generally in stock.

In the case of short-length set screws penetration of the bottom of the hexagon is not permissible.