

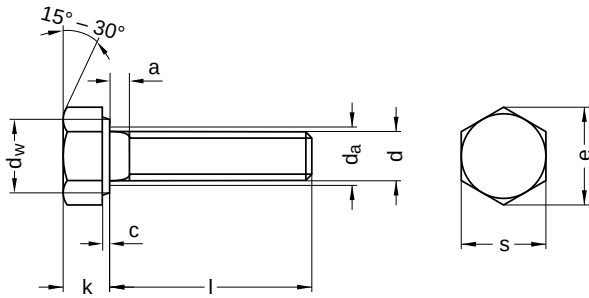
**DIN 933** similar to ISO 4017

## Hexagon head bolts

Hexagon head | external hex | fully threaded

Steel 8.8 | bright | Cr(VI)-free | Metric thread

Further information: DIN-standard has been withdrawn | changed spanner widths for M10, M12, M14 and M22 | screws can be paired with a 6h tolerance-compliant female thread



Diameter (d)	a		c		d <sub>a</sub>	d <sub>w</sub>	e	k		r	s		Pitch (P)	
	max.	min.	max.	min.	max.	min.	min.	nominal size	min.	max.	min.	max.		
M 3	1.50	0.15	0.4	0.4	3.6	4.6	6.04	2.0	1.88	2.12	0.10	5.5	5.32	0.50
M 4	2.10	0.15	0.4	0.4	4.7	5.7	7.50	2.8	2.60	3.00	0.20	7.0	6.64	0.70
M 5	2.40	0.15	0.5	0.5	5.7	6.7	8.63	3.5	3.35	6.35	0.20	8.0	7.64	0.80
M 6	3.00	0.15	0.5	0.5	6.8	8.7	10.89	4.0	3.76	4.24	0.25	10.0	9.64	1.00
M 8	3.75	0.15	0.6	0.6	9.2	11.4	14.20	5.3	5.06	5.54	0.40	13.0	12.57	1.25
M 10	4.50	0.15	0.6	0.6	11.2	15.4	18.72	6.4	6.11	6.69	0.40	17.0	16.57	1.50
M 12	5.25	0.15	0.6	0.6	13.7	17.2	20.88	7.5	7.21	7.79	0.60	19.0	18.48	1.75
M 14	6.00	0.15	0.6	0.6	15.7	20.1	23.91	8.8	8.51	9.09	0.60	22.0	21.16	2.00
M 16	6.00	0.20	0.8	0.8	17.7	22.0	26.17	10.0	9.71	10.29	0.60	24.0	23.16	2.00
M 18	7.50	0.20	0.8	0.8	20.2	24.8	29.56	11.5	11.15	11.85	0.60	27.0	26.15	2.50
M 20	7.50	0.20	0.8	0.8	22.4	27.7	32.95	12.5	12.15	12.85	0.80	30.0	29.16	2.50
M 22	7.50	0.20	0.8	0.8	24.4	29.5	35.03	14.0	13.65	14.35	0.80	32.0	31.00	2.50
M 24	9.00	0.20	0.8	0.8	26.4	33.2	39.55	15.0	14.65	15.35	0.80	36.0	35.00	3.00
M 27	9.00	0.20	0.8	0.8	30.4	38.0	45.20	17.0	16.65	17.35	1.00	41.0	40.00	3.00
M 30	10.50	0.20	0.8	0.8	33.4	42.7	50.85	18.7	18.28	19.12	1.00	46.0	45.00	3.50
M 33	10.50	0.20	0.8	0.8	36.4	46.5	55.37	21.0	20.58	21.42	1.00	50.0	49.00	3.50
M 36	12.00	0.20	0.8	0.8	39.4	51.1	60.79	22.5	22.08	22.92	1.00	55.0	53.80	4.00
M 42	13.50	0.30	1.0	1.0	45.6	59.9	71.30	26.0	25.58	26.42	1.20	65.0	63.10	4.50
M 48	15.00	0.30	1.0	1.0	52.6	69.4	82.60	30.0	29.58	30.42	1.60	75.0	73.10	5.00

All technical data refer to the measure mm



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nominal size	Length (l)	
	min.	max.
4	3.76	4.24
5	4.76	5.24
6	5.76	6.24
8	7.71	8.29
10	9.71	10.29
12	11.65	12.35
14	13.65	14.35
16	15.65	16.35
18	17.65	18.35
20	19.58	20.42
22	20.95	23.05
25	23.95	26.05
28	26.95	29.05
30	28.95	31.05
35	33.75	36.25
40	38.75	41.25
45	43.75	46.25
50	48.75	51.25
55	53.50	56.50
60	58.50	61.50

nominal size	Length (l)	
	min.	max.
65	63.50	66.50
70	68.50	71.50
75	73.50	76.50
80	78.50	81.50
85	83.25	86.75
90	88.25	91.75
100	98.25	101.75
110	108.25	111.75
120	118.25	121.75
130	128.00	132.00
140	138.00	142.00
150	148.00	152.00
160	158.00	162.00
170	168.00	172.00
180	178.00	182.00
190	187.70	192.30
200	197.70	202.30
210	207.70	212.30
220	217.70	222.30
230	227.70	232.30

nominal size	Length (l)	
	min.	max.
240	237.70	242.30
250	247.70	252.30
260	257.40	262.60
280	277.40	282.60
300	297.40	302.60
320	317.15	322.85
340	337.15	342.85
360	357.15	362.85
380	377.15	382.85
400	397.15	402.85
420	416.85	423.15
440	436.85	443.15
460	456.85	463.15
480	476.85	483.15
500	496.85	503.15
520	516.85	523.15
540	536.85	543.15
560	556.85	563.15
580	576.85	583.15
600	596.85	603.15

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