Datasheet

RS Stock No: 8229322

Steel Bright Zinc Plated, Hexagon Cap Socket Screws: Metric Thread

Socket Caps have a small cylindrical head with tall vertical sides giving them space-saving advantages as well as greater tensile strength and they require less side room for wrenches. These socket screws are used in many applications including the manufacture and repair of vehicles, machine tooling, tools and dies, machine production and repair and many general engineering applications. Most importantly, socket head cap screws provide safety, reliability and cost efficiency.

- 12.9 grade heat-treated high tensile alloy steel
- Threaded in accordance with DIN 912 Standard
- 1200 MPa maximum tensile strength compared to just 800 MPa for structural grade 8.8 so can be used in high tensile applications
- 1100 yield strength compared to 640-660 MPa depending on the size of the screw for structural grade 8.8
- 970 MPa proof load compared to just 580-600 depending on the size of the screw for structural grade 8.8
- Suitable for use in many industrial applications and similarly medical, construction, electronic and domestic applications
- Requires a Hex Key / Allen Key

Please view our range listing below for more Bright Zinc Plated Steel Hexagon Socket Cap Head Screws:

Head Shape	Material	Thread Size	Length	RS Part No.
Hexagon Socket	Bright Zinc Plated	M4	6 mm	8229322
Hexagon Socket	Bright Zinc Plated	M5	35 mm	8229325
Hexagon Socket	Bright Zinc Plated	M5	45 mm	8229329

SOCKET HEAD CAP SCREWS DIN 912/ ISO 4762 / ANSI B 18.3.1 M
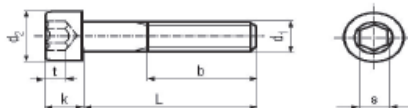
Thread Size d1	(M1.4)		M1.6		M2		M2.5		M2.6		M3		M4	
Thread Pitch	0.3		0.35		0.4		0.45		0.45		0.5		0.7	
Thread Length b	14		15		16		17		NA		18		20	
Head Dia. d2	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	2.46	2.74	2.86	3.14	3.62	3.98	4.32	4.68	4.82	5.18	5.32	5.68	6.78	7.22
ISO 4762 (1997)			2.86	3.14	3.62	3.98	4.32	4.68			5.32	5.68	6.78	7.22
ANSI B 18.3.1 M (1986)			2.87	3.14	3.65	3.98	4.33	4.68			5.32	5.68	6.80	7.22
Head Height k	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	1.26	1.40	1.46	1.60	1.86	2.00	2.36	2.50	2.46	2.60	2.86	3.00	3.82	4.00
ISO 4762 (1997)			1.46	1.60	1.86	2.00	2.36	2.50			2.86	3.00	3.82	4.00
ANSI B 18.3.1 M (1986)			1.52	1.60	1.91	2.00	2.40	2.50			2.89	3.00	3.88	4.00
Key Size nominal s	1.3		1.5		1.5		2		2		2.5		3	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	1.32	1.36	1.52	1.56	1.52	1.56	2.02	2.06	2.02	2.06	2.52	2.58	3.02	3.08
ISO 4762 (1997)			1.52	1.56	1.52	1.56	2.02	2.06			2.52	2.58	3.02	3.08
ANSI B 18.3.1 M (1986)			1.520	1.545	1.520	1.545	2.020	2.045			2.52	2.56	3.020	3.071
Key Engagement t	min.		min.		min.		min.		min.		min.		min.	
DIN 912 (1983)	0.6		0.7		1		1.10		1.2		1.3		2	
ISO 4762 (1997)			0.7		1		1.10				1.3		2	
ANSI B 18.3.1 M (1986)			0.8		1		1.25				1.5		2	

Thread Size d1	M5		M6		M8		M10		M12		(M14)		M16	
Thread Pitch	0.8		1		1.25		1.5		1.75		2		2	
Thread Length b	22		24		28		32		36		40		44	
Head Dia. d2	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	8.28	8.72	9.78	10.22	12.73	13.27	15.73	16.27	17.73	18.27	20.67	21.33	23.67	24.33
ISO 4762 (1997)	8.28	8.72	9.78	10.22	12.73	13.27	15.73	16.27	17.73	18.27	20.67	21.33	23.67	24.33
ANSI B 18.3.1 M (1986)	8.27	8.72	9.74	10.22	12.70	13.27	15.67	16.27	17.63	18.27	20.6	21.33	23.58	24.33
Head Height k	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	4.82	5.00	5.7	6.0	7.64	8.00	9.64	10.00	11.57	12.00	13.57	14.00	15.57	16.00
ISO 4762 (1997)	4.82	5.00	5.7	6.0	7.64	8.00	9.64	10.00	11.57	12.00	13.57	14.00	15.57	16.00
ANSI B 18.3.1 M (1986)	4.86	5.00	5.85	6.00	7.83	8.00	9.81	10.00	11.79	12.00	13.77	14.00	15.76	16.00
Key Size nominal s	4		5		6		8		10		12		14	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	4.020	4.095	5.02	5.14	6.02	6.14	8.025	8.175	10.025	10.175	12.032	12.212	14.032	14.212
ISO 4762 (1997)	4.020	4.095	5.02	5.14	6.02	6.14	8.025	8.175	10.025	10.175	12.032	12.212	14.032	14.212
ANSI B 18.3.1 M (1986)	4.020	4.084	5.020	5.084	6.020	6.095	8.025	8.115	10.025	10.127	12.032	12.146	14.032	14.159
Key Engagement t	min.		min.		min.		min.		min.		min.		min.	
DIN 912 (1983)	2.5		3		4		5		6		7		8	
ISO 4762 (1997)	2.5		3		4		5		6		7		8	
ANSI B 18.3.1 M (1986)	2.5		3		4		5		6		7		8	

Thread Size d1	(M18)		M20		(M22)		M24		(M27)		M30		M33	
Thread Pitch	2.5		2.5		2.5		3		3		3.5		3.5	
Thread Length b	48		52		56		60		66		72		78	
Head Dia. d2	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	26.67	27.33	29.67	30.33	32.61	33.39	35.61	36.39	39.61	40.39	44.61	45.39	49.61	50.39
ISO 4762 (1997)			29.67	30.33			35.61	36.39			44.61	45.39		
ANSI B 18.3.1 M (1986)			29.53	30.33			35.48	36.39			44.42	45.39		
Head Height k	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	17.57	18.00	19.48	20.00	21.48	22.00	23.48	24.00	26.48	27.00	29.48	30.00	32.38	33.00
ISO 4762 (1997)			19.48	20.00			23.48	24.00			29.48	30.00		
ANSI B 18.3.1 M (1986)			19.73	20.00			23.70	24.00			29.67	30.00		
Key Size nominal s	14		17		17		19		19		22		24	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
DIN 912 (1983)	14.032	14.212	17.05	17.23	17.05	17.23	19.065	19.275	19.065	19.275	22.065	22.275	24.065	24.275
ISO 4762 (1997)			17.05	17.23			19.065	19.275			22.065	22.275		
ANSI B 18.3.1 M (1986)			17.050	17.216			19.065	19.243			22.065	22.319		
Key Engagement t	min.		min.		min.		min.		min.		min.		min.	
DIN 912 (1983)	9		10		11		12		13.5		15.5		18	
ISO 4762 (1997)			10				12				15.5			
ANSI B 18.3.1 M (1986)			10				12				15.0			

For More Detailed Information, Please Refer To Complete DIN, ISO, or ANSI Standard, Which Are The Governing Standards.