

Datasheet

RS Stock No: 8229325

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

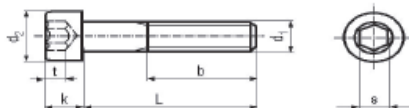


ENGLISH

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



Head Diameter d2 max. allows for Knurled Head

| 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 | | 18 | | 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) | 1.28 | 1.40 | 1.48 | 1.60 | 1.88 | 2.00 | 2.36 | 2.50 | 2.46 | 2.60 | 2.88 | 3.00 | 3.82 | 4.00 |
| ISO 4762 (1997) | | | 1.48 | 1.60 | 1.88 | 2.00 | 2.36 | 2.50 | | | 2.88 | 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 | 1.38 | 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) | | M18 | |
| 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 | 4.094 | 5.020 | 5.094 | 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 | | 58 | | 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.