



Datasheet

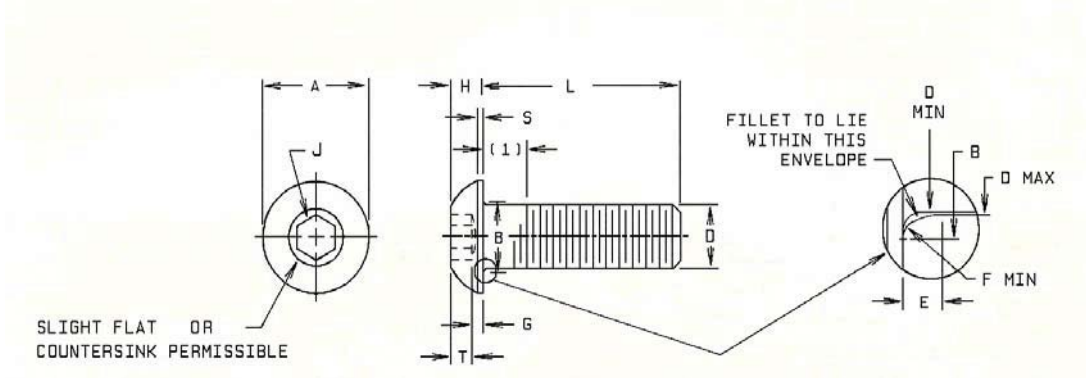
Button Head Cap Screws: Metric Thread. Steel Black Self-Color.



Button Head Socket Screws are designed for light duty. They have a similar thread design as a Socket Cap Screw although the dome shaped head is wider and has a lower profile than a Socket Cap Screw, presenting an aesthetic appearance to an assembly. These fasteners are ideal when a wider bearing surface is required. Self-color steel is an uncoated mild steel and is used in applications where corrosion resistance is not required. If painted or suitably treated these self-color button head socket screws can be used in outdoor applications.

- 10.9 grade black, self-color steel.
- Threaded in accordance with ISO 7380 standard.
- Used in applications where a wider head and lower profile is required.
- Suitable for light fastening applications.
- Typical applications include; machine tooling, security guarding and many internal joinery applications.
- Requires a Hex Key/Allen Key.

Metric Button Head Socket Cap Screws-Property Class 12.9



Nominal Size	A Head Diameter		H Head Height		S Head Side Height Ref.	J Hexagon Socket Size Nominal	T Key Engagement Min.
	Max.	Min.	Max.	Min.			
M3x0.5	5.70	5.40	1.65	1.43	0.38	2.0	1.04
M4x0.7	7.60	7.24	2.20	1.95	0.38	2.5	1.30
M5x0.8	9.50	9.14	2.75	2.50	0.50	3.0	1.56
M6x1.0	10.50	10.07	3.30	3.00	0.80	4.0	2.08
M8x1.25	14.00	13.57	4.40	4.05	0.80	5.0	2.60
M10x1.50	17.50	17.07	5.50	5.20	0.80	6.0	3.12
M12x1.75	21.00	20.48	6.60	6.24	0.80	8.0	4.16
M16x2.0	28.00	27.48	8.80	8.44	1.00	10.0	5.20

Nominal Size	G Wall Thickness Min.	B Transition Diameter		E Fillet Transition Length Max.	F Fillet Juncture Radius Min.	L Maximum Standard Length
		Max.	Min.			
M3x0.5	0.20	3.6	3.2	0.51	0.10	12
M4x0.7	0.30	4.7	4.4	0.60	0.20	20
M5x0.8	0.38	5.7	5.4	0.60	0.20	30
M6x1.0	0.74	6.8	6.5	0.68	0.25	30
M8x1.25	1.05	9.2	8.8	1.02	0.40	40
M10x1.50	1.45	11.2	10.8	1.02	0.40	40
M12x1.75	1.63	14.2	13.2	1.87	0.60	60
M16x2.0	2.25	18.2	17.2	1.87	0.60	60

Applicable Standards: ASME B18.3.4M and ASTM F835M.

Hardness: R_C 38-45. Tensile Strength: 1220 MPa min.

Note: Screws of nominal length shorter than those listed in Column L will be threaded to the head.

Metric Button Head Socket Cap Screws-Property Class 12.9 (continued)

Mechanical Properties and Tightening Torques

Nominal Size	Tensile Strength kN Min.	Shear Strength Thread Section kN Min.	Tightening Torque Nm Max.
M3x0.5	4.93	3.81	1.25
M4x0.7	8.60	6.65	2.9
M5x0.8	13.9	10.7	5.9
M6x1.0	19.7	15.2	10
M8x1.25	35.9	27.7	24
M10x1.50	56.8	43.9	48
M12x1.75	82.6	63.9	84
M16x2.0	155.0	119.0	207

