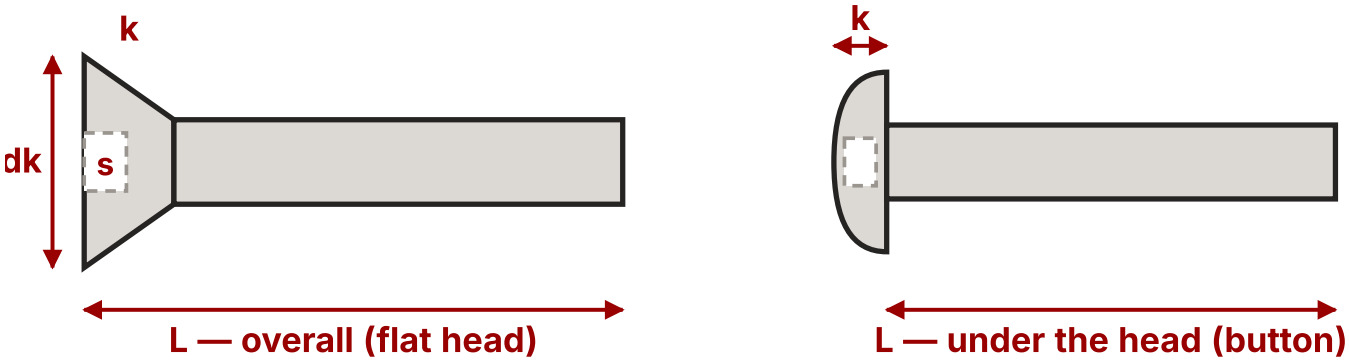
Metric Flat & Button Head Socket Screw Dimensions

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Hex key (Allen wrench) size, head diameter and head height for metric flat head socket cap screws (DIN 7991, M3–M24) and button head socket cap screws (ISO 7380, M3–M16).

Both are sized by the thread — M6 is 6 mm across — and turned with a metric hex key. A **flat head** sits flush in a countersink (90°; 60° at M24), so it is measured **overall**, head included. A **button head** sits on top, so it is measured **under the head**, like a cap screw.



Letters match the table columns: **s** hex key (socket, dashed), **dk** head diameter, **k** head height, **L** length.

Metric flat head socket cap screws — DIN 7991 (mm)

SIZE	PITCH	HEX KEY S	HEAD DIA DK MAX	HEAD HEIGHT K MAX	THREAD LENGTH B (REF)
M3	0.5	2 mm	6	1.7	12
M4	0.7	2.5 mm	8	2.3	14
M5	0.8	3 mm	10	2.8	16
M6	1	4 mm	12	3.3	18
M8	1.25	5 mm	16	4.4	22
M10	1.5	—	—	—	26
M12	1.75	8 mm	24	6.5	30
M14	2	10 mm	27	7	34
M16	2	10 mm	30	7.5	38
M20	2.5	12 mm	36	8.5	46
M24	3	14 mm	39	14	54

Countersunk head: 90° through M20; the M24 head is 60°. Length is overall. DIN 7991 heads are a little lower than ISO 10642 at some sizes — not interchangeable in a tight countersink. A dash: our sources differ — give us a call.

Metric button head socket cap screws — ISO 7380 (mm)

SIZE	PITCH	HEX KEY S	HEAD DIA DK MAX	HEAD HEIGHT K MAX
M3	0.5	2 mm	5.7	1.65
M4	0.7	2.5 mm	7.6	2.2

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SIZE	PITCH	HEX KEY S	HEAD DIA DK MAX	HEAD HEIGHT K MAX
M5	0.8	3 mm	9.5	2.75
M6	1	4 mm	10.5	3.3
M8	1.25	5 mm	14	4.4
M10	1.5	6 mm	17.5	5.5
M12	1.75	8 mm	21	6.6
M16	2	10 mm	28	8.8

Length is under the head. ISO 7380 calls these screws of **reduced loadability**: the low head is weaker than the thread, so they're marked with a leading zero (010.9, 012.9) and are not for high-strength joints.

Good to know

Flat and button heads are for light-duty fastening and a clean look; for a joint that has to carry load, use a socket head cap screw. Inch flat and button heads are on the flat & button head chart.

Quick answers

What size Allen key fits an M6 flat head socket screw?

A **4 mm** hex key (DIN 7991).

What size Allen key fits an M6 button head screw?

A **4 mm** hex key (ISO 7380).

What hex key goes with each metric button head screw?

M3 – 2 mm, M4 – 2.5 mm, M5 – 3 mm, M6 – 4 mm, M8 – 5 mm, M10 – 6 mm, M12 – 8 mm, M16 – 10 mm.

How big is the head on an M8 flat head socket screw?

16 mm across, maximum, 4.4 mm tall (DIN 7991).

How is a metric flat head screw measured?

Overall, head included, in millimetres — the head sits flush in the countersink. A button head is measured under the head.

Reference values drawn from the governing standards. For critical applications, confirm against the standard and the manufacturer's published data. Technical information disclaimer →