Hexagon socket button head screw with collar

The integral collar provides a wider bearing area with a compact, rounded head. It is part of the head, not a separate washer; check clearance and the bearing surface of the clamped component.

ISO 7380-2:2022 assumes head loadability equal to 80% of thread loadability. This is neither a design working load nor a tightening torque. The marked property class has a leading zero, for example 08.8 or 010.9, to identify reduced loadability.

Dimensional range

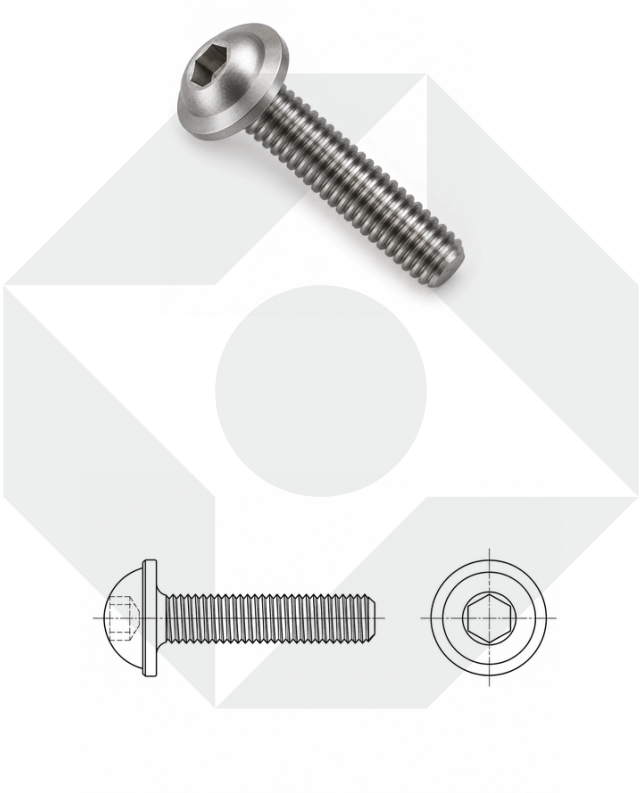
M3-M16

Thread

Metric · coarse pitch

Configuration

Reduced-loadability head



Technical drawing

d

thread

P

pitch

dk

button diameter

dc

collar diameter

c

collar thickness

k

overall head height

s

socket size

t

socket depth

L

length below collar

Variants and dimensional data

Principal dimensions M3-M16 to ISO 7380-2:2022. Commercial lengths M3-M12; M16, other diameters and lengths on request.

Dimensions in mm. Identification drawing, not a manufacturing drawing.

M	Pitch P	dk max.	dc max.	c max.	k max.	s	t min.
3	0.5	5.2	6.9	0.7	1.65	2	1.04
4	0.7	7.2	9.4	0.8	2.2	2.5	1.3
5	0.8	8.8	11.8	1	2.75	3	1.56
6	1	10	13.6	1.2	3.3	4	2.08
8	1.25	13.2	17.8	1.5	4.4	5	2.6
10	1.5	16.5	21.9	2	5.5	6	3.12
12	1.75	19.4	26	2.4	6.6	8	4.16
16	2	26	34	2.8	8.8	10	5.2

Full or partial threading must be confirmed for the individual size and supply. Listed commercial lengths do not guarantee a plain-shank length; b remains ND where the configuration has not been confirmed.

ISO 7380-2:2022 assumes head loadability equal to 80% of thread loadability. This is neither a design working load nor a tightening torque. The marked property class has a leading zero, for example 08.8 or 010.9, to identify reduced loadability.

Table dimensions refer to the stated execution. DIN/UNI, polymer and special variants require verification of their own dimensions; they do not automatically inherit reference geometry, weight or performance.

Materials, classes, finishes and treatments

Executions are distinguished by reference, material, class and finish. DIN, ISO and UNI references do not imply dimensional equivalence or availability of every size in each material. Supply and batch documents require quotation confirmation.

Execution reference	Material	Class / hardness	Documented finishes
ISO 7380-2	Steel	010.9	Black zinc plated; GEOMET 321A; Plain; Zinc plated
ISO 7380-2	Stainless A2	To be specified	To be specified
ISO 7380-2	Steel	10.9 (reduced loadability)	GEOMET 321A

“To be specified” is a requirement not established by this selection; it does not imply class 70/80, HV hardness or an automatic finish. Steel property classes do not apply to nylon/polyamide; PA6 and PA66 are distinguished only where stated. For nuts with non-metallic inserts, the material shown is the body material.

Documentation

Document	Status
Declaration of conformity	Subject to order agreement
Material certificate	Subject to order agreement
EN 10204 2.2 test report	Subject to order agreement
EN 10204 3.1 inspection certificate	Subject to order agreement
Dimensional inspection report	Subject to order agreement
Coating report	Subject to order agreement
Other documentation	Subject to order agreement

Batch documents are not automatically included: specify your requirements in the RFQ.

ISO, DIN and UNI: key differences

ISO 7380-2:2022

Main standard used for the dimensions in this data sheet.