

ISO 4028

Hexagon socket set screws with dog point



Standard	ISO 4028		
Product Type	This document specifies the characteristics of hexagon socket set screws with dog point, with metric coarse pitch threads M1,6 to M30 for steel and M1,6 to M24 for stainless steel, and with product grade A. Set screws are not intended for use under tensile load. If, in certain cases other specifications are requested, hardness classes and stainless steel grades can be selected from ISO 898-5 or ISO 3506-3, and dimensional options from ISO 888, ISO 965-1 or ISO 4753.		
Material	Stainless Steel, Carbon Steel, Alloy Steel		
Property Class	A2 (ISO 3506-3) · 45H (ISO 898-5)		
Surface Finish	Passivated, Plain, Blackened		
Size Range	M1.6 - M24	Length Range	3-60 mm
Thread	ISO metric coarse pitch		

BASIS OF SPECIFICATION

WHICH STANDARD GOVERNS WHAT

Dimensions to	ISO 4028:2003
Carbon steel / Alloy steel mechanical properties to	ISO 898-5:2012
Stainless steel mechanical properties to	ISO 3506-3:2025
Product grade	A

PROPERTY CLASSES

REQUIRED VALUES PER ISO 3506-3

Class	Steel group	Governing property	Source
A2	Steel group A2	Hardness and torque - not tested in tension	ISO 3506-3

HARDNESS REQUIREMENTS

REQUIRED VALUES PER ISO 898-5

Class	Hardness	Governing property	Source
45H	450 - 560 HV	Hardness - not tested in tension	ISO 898-5

DIMENSIONAL DATA - SIZES WE SUPPLY

ALL DIMENSIONS PER THE STANDARD

d Diameter - mm	P Thread Pitch - mm	s Hex Socket Size - mm	t (min) Key Engagement, Short Length - mm	t (min) Key Engagement, Long Length - mm	dp (max) Point Diameter - mm	dp (min) Point Diameter - mm	z (min) Point Length, Short Type - mm	z (max) Point Length, Short Type - mm	z (min) Point Length, Long Type - mm	z (max) Point Length, Long Type - mm	Short Length Limit - mm
M3	0.5	1.5	1.2	2	2	1.75	0.75	1	1.5	1.75	5
M4	0.7	2	1.5	2.5	2.5	2.25	1	1.25	2	2.25	6
M5	0.8	2.5	2	3	3.5	3.2	1.25	1.5	2.5	2.75	6
M6	1	3	2	3.5	4	3.7	1.5	1.75	3	3.25	8
M8	1.25	4	3	5	5.5	5.2	2	2.25	4	4.3	10
M10	1.5	5	4	6	7	6.64	2.5	2.75	5	5.3	12
M12	1.75	6	4.8	8	8.5	8.14	3	3.25	6	6.3	16

FURTHER SIZES IN THIS STANDARD

ALL DIMENSIONS PER THE STANDARD

Not held in stock. Available to order; minimum order quantity applies.

d Diameter - mm	P Thread Pitch - mm	s Hex Socket Size - mm	t (min) Key Engagement, Short Length - mm	t (min) Key Engagement, Long Length - mm	dp (max) Point Diameter - mm	dp (min) Point Diameter - mm	z (min) Point Length, Short Type - mm	z (max) Point Length, Short Type - mm	z (min) Point Length, Long Type - mm	z (max) Point Length, Long Type - mm	Short Length Limit - mm
M1.6	0.35	0.7	0.7	1.5	0.8	0.55	0.4	0.65	0.8	1.05	2.5
M2	0.4	0.9	0.8	1.7	1	0.75	0.5	0.75	1	1.25	3
M2.5	0.45	1.3	1.2	2	1.5	1.25	0.63	0.88	1.25	1.5	4
M16	2	8	6.4	10	12	11.57	4	4.3	8	8.36	20
M20	2.5	10	8	12	15	14.57	5	5.3	10	10.36	25
M24	3	12	10	15	18	17.57	6	6.3	12	12.43	30

MARKING
Steel — On the package, not on the part

What	On the package: manufacturer and/or distributor identification, the hardness class symbol of its Table 1, and the manufacturing lot number to ISO 16426. On the part itself the manufacturer identification mark is not required, and marking the hardness class is not generally required; where it is agreed, the hardness class symbol is used, for example 45H
Where	On the package. The obligation sits on the shipping label, not on the part - a set screw with no lettering on it is conforming, a shipping label without the lot number is not
Sizes	All sizes
Clause	ISO 898-5:2012, 10.2, 10.3 and 10.4

Stainless steel — Not mandatory on the part; required on the package

What	Marking the part is not mandatory. Where the hardness class symbol is marked, the manufacturer identification mark shall be there as well, as far as technically possible; the mark shall carry the steel group and hardness class, for example A2-21H. On the package, marking is required without exception: manufacturer and/or distributor identification, the steel group and hardness class symbol, and the manufacturing lot number to ISO 16426
Where	On the part where marked, and on the package in every case
Sizes	All sizes
Clause	ISO 3506-3:2009, 3.2.1 to 3.2.4, with 3.3 on delivery condition

- Set screws are the opposite of bolts: read this before shipping. The marking obligation sits on the package, not on the part.
- This standard sets no marking clause of its own: its body runs Clauses 1 to 5 only. That is a checked negative.
- Two optional suffixes buyers often ask about: L for low-carbon austenitic grades with C <= 0,03 % (A4L-21H), and P for parts passivated to ISO 16048 (A4-21HP). Delivery is clean and bright by default.
- Confirm the ordered property class before production.

INSPECTION DOCUMENTS WE CAN ISSUE

EN 10204 3.1 material certificate	Can be included when agreed in the order.
Dimensional inspection report	Can be provided for the agreed inspection scope.
Certificate of conformity	Can be issued against the confirmed order requirements.
Mechanical test report	Available when the required tests are agreed before production.
Chemical analysis report	Available when the material verification scope is agreed.
Coating inspection report	Can record the coating checks agreed for the order.

REFERENCES & NOTES

Note: Dimensional values follow the selected execution standard. Material properties and batch test results are included only when declared or supported by the applicable certificate or test report.

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