

JIS

JAPANESE INDUSTRIAL STANDARD

Miniature Screw Threads

JIS B 0201-1973

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B 0201-1973

Japanese Text

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(Chairman: YAMAMOTO Noboru)
Divisional Council on Machine Element
(Chairman: HAYASHI Kineo)

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Miniature Screw Threads

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1. Scope

This Japanese Industrial Standard specifies basic profile, formulas, basic dimensions, classes, limits of sizes and tolerances for miniature screw threads of nominal diameter 0.3 to 1.4 mm used for timepieces, optical instruments, electrical meters, measuring instruments, etc. The tolerance system is given in Appendix.

The miniature screw threads of nominal diameter 1 to 1.4 mm shall be used only where required especially in timepiece industry and the like, in other cases generally JIS B 0205-Metric Coarse Screw Threads shall be complied with.

Reference: This miniature screw threads conform to ISO miniature screw threads specified in ISO R 1501-ISO miniature screw threads.

2. Basic Profile, Formulas, and Basic Dimensions

2.1 Basic Profile The basic profile is indicated by a heavy line in Fig. 1.

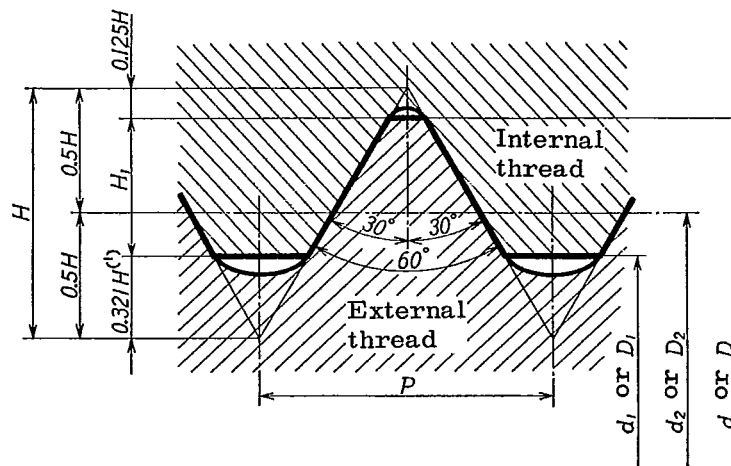


Fig. 1. Basic Profile for Miniature Screw Threads

Note (1) This value is that obtained by rounding off 0.320744H.

2.2 Formulas The formulas used for the calculation of basic dimensions shall be as follows:

$$\begin{aligned} H &= 0.866025 P & d_2 &= d - 0.649519 P & D &= d \\ H_1 &= 0.48 P & d_1 &= d - 0.96 P & D_2 &= d_2 \\ & & & & D_1 &= d_1 \end{aligned}$$

Applicable Standard:

JIS B 0205-Metric Coarse Screw Threads

Reference Standard:

ISO R 1501-1970 ISO miniature screw threads

2.3 Basic Dimensions The basic dimensions shall conform to Table 1.

Table 1. Basic Dimensions for Miniature Screw Threads

Unit : mm

Designation of screw thread ⁽²⁾		Pitch	Depth of thread engagement H_1	Internal thread		
				Major diameter D	Pitch diameter D_2	Minor diameter D_1
1	2	P		External thread		
				Major diameter d	Pitch diameter d_2	Minor diameter d_1
S0.3	S0.35	0.08	0.0384	0.300	0.248	0.223
		0.09	0.0432	0.350	0.292	0.264
S0.4		0.1	0.0480	0.400	0.335	0.304
S0.5	S0.45	0.1	0.0480	0.450	0.385	0.354
	S0.55	0.125	0.0600	0.500	0.419	0.380
		0.125	0.0600	0.550	0.469	0.430
S0.6	S0.7	0.15	0.0720	0.600	0.503	0.456
		0.175	0.0840	0.700	0.586	0.532
S0.8		0.2	0.0960	0.800	0.670	0.608
S1	S0.9	0.225	0.1080	0.900	0.754	0.684
	S1.1	0.25	0.1200	1.000	0.838	0.760
		0.25	0.1200	1.100	0.938	0.860
S1.2	S1.4	0.25	0.1200	1.200	1.038	0.960
		0.3	0.1440	1.400	1.205	1.112

Note ⁽²⁾ Screw threads in column 1 shall preferentially be chosen and, if necessary, in column 2.

3. Classes

The thread classes shall be as shown in Table 2.

Table 2. Classes for Miniature Screw Threads

Thread	Class
Internal thread	3 G 5
	3 G 6
	4 H 5
	4 H 6
External thread	5 h 3

Remark: For the method of indicating class see 5. in Appendix.