

JIS

JAPANESE INDUSTRIAL STANDARD

Vernier, dial and digital height gauges

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the original Standard in Japanese is to be final authority.



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1. Scope This Japanese Industrial Standard specifies the height gauges of 1000 mm or under in maximum measuring length, among the general height gauges for measuring height dimensions by 0.05 mm, 0.02 mm or 0.01 mm in scale interval, minimum indication amount or minimum reading value (hereafter referred to as "height gauges").

Remarks: The standards cited in this Standard are the following:

JIS B 7503 Dial gauges reading in 0.01 mm

JIS B 7506 Gauge blocks

JIS B 7513 Precision surface plates

JIS B 7526 Squares

JIS B 7533 Dial test indicators (lever type)

JIS B 7536 Electrical comparators

JIS G 4051 Carbon steels for machine structural use

JIS G 4303 Stainless steel bars

JIS G 4401 Carbon tool steels

JIS G 5502 Spheroidal graphite iron castings

JIS H 5501 Cemented carbide alloy of tip

JIS Z 8103 Glossary of terms used in instrumentation

2. Definitions For the main terms used in this Standard the definitions in JIS Z 8103 apply, and the rest of the terms shall be as follows:

- (1) height gauge The measuring instrument capable of reading the distance between the measuring face of scribe and the reference face of base by the graduation of main scale or counter, and vernier scale or dial scale, or by an electronics type digital indication, when the slider with a jaw to which a scribe is attached slides along the pillar standing vertical to the base.
- (2) vernier scale That scale for reading the main scale graduations in further subdivision, and it is obtained by dividing the $(n - 1)$ graduations of the main scale graduations into n or $\frac{n}{2}$ equal parts. It is also called the auxiliary scale.
- (3) dial scale That disk scale for reading by the rotating pointer, magnifying the travelling amount of the slider mechanically by gears or the like.
- (4) mechanical type digital indication That numerical indication to detect the travelling amount of the slider on the basis of the main scale and to express this by converting and counting mechanically (hereafter referred to as "counter"). In this case, the dial scale may also be used together for reading the decimal part of the length.

- (5) electronics type digital indication The numerical indication being expressed by detecting the travelling amount of the slider on the basis of the main scale and counting this by an electronics circuit.
- (6) instrumental error That subtracted value of the true value to be indicated from the reading of the height gauge.

3. Names The names of the principal parts of the height gauge shall be in accordance with Fig. 1.

Fig. 1. Names of principal parts

