UDC 531.717.3

JIS

JAPANESE INDUSTRIAL STANDARD

Vernier, dial and digital depth gauges

JIS B 7518—1993

Translated and Published

by

Japanese Standards Association

Printed in Japan

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

UDC 531.717.3

JAPANESE INDUSTRIAL STANDARD J I S

Vernier, dial and digital depth gauges B 7518-1993

1. Scope This Japanese Industrial Standard specifies the depth gauges of 300 mm or under in maximum measuring length, among the depth gauges for general use which measure the depth 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 "depth 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 7533 Dial test indicators (lever type)
JIS G 4303 Stainless steel bars
JIS G 4401 Carbon tool steels
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 given in the following:

(1) depth gauge The measuring instrument capable of reading the distance between the measuring surface of main scale and the measuring surface of base by the main scale graduation and vernier graduation or dial graduation, or by the electronic digital indication, when the main scale having a measuring surface in parallel to the measuring surface of base slides within the base in right angle direction to the measuring surface of base.

(2) vernier scale That scale for reading the main scale graduation in further subdivision, and it is obtained by dividing the $(n-1)$ graduations of main scale graduations into n or $\frac{n}{2}$ equal parts.

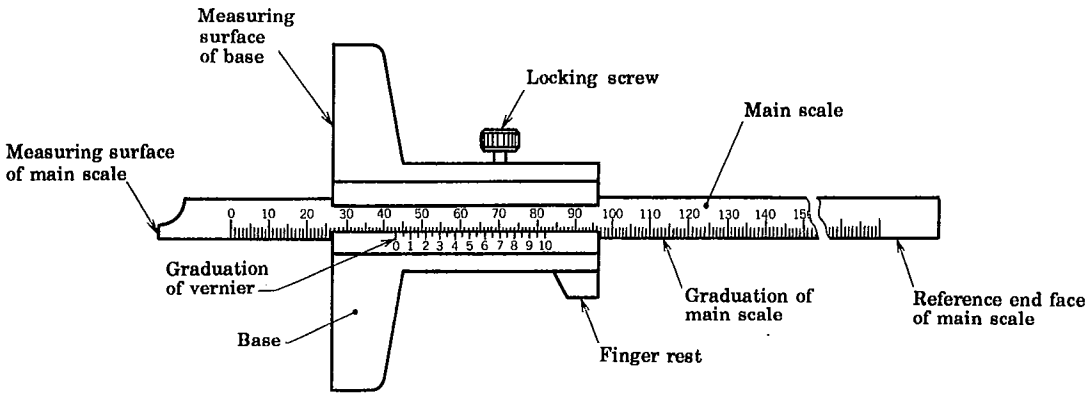
(3) dial scale That disk scale for reading by the rotating pointer, magnifying the travelling amount of the main scale mechanically by gears or the like.

(4) electronics type digital indication The numerical indication being expressed by detecting the travelling amount of the main scale on the basis on the main scale and counting this by an electronics circuit.

(5) instrumental error That subtracted value of the true value from the reading of the depth gauge.

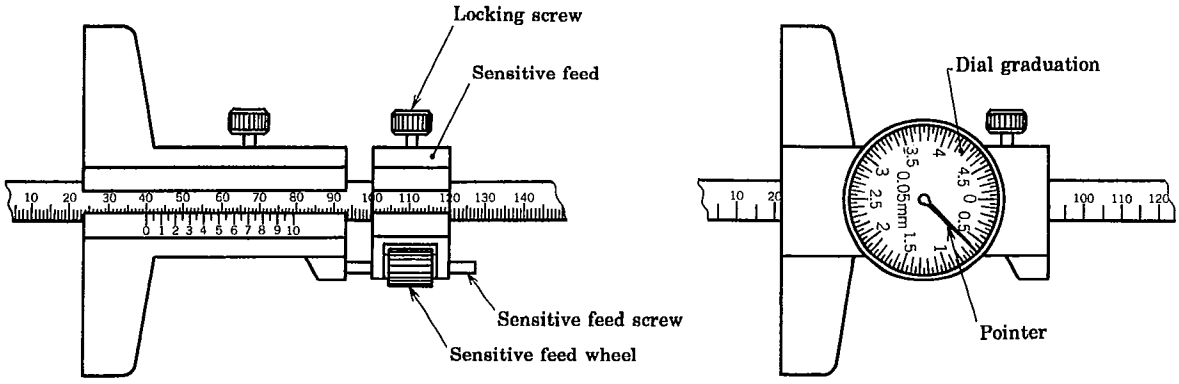
3. Names The names of the principal parts of the depth gauge shall be in accordance Fig. 1.

Fig. 1. Names of principal parts

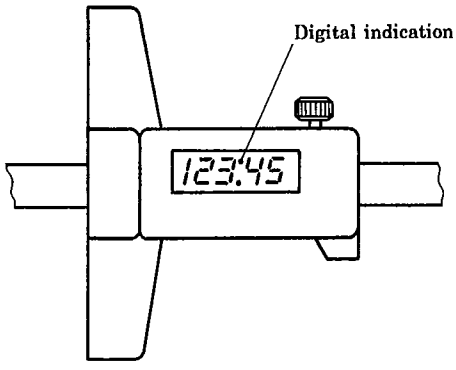


(a) That of having sensitive feed

(b) That of pointer reading



(c) That of electronics type digital indication



Remarks: These Figures are only for indicating the names, and are not for indicating the standards of shape and construction.

4. Types The types for the reading mechanisms of the depth gauges shall consist of three types of the reading by the main scale graduation and vernier scale, reading by the main scale graduation, dial scale and pointer, and reading by the electronics type digital indication, and each of them shall consist of that of with and that of without sensitive feed.