

JIS

JAPANESE INDUSTRIAL STANDARD

Flow Type Air Gauges

JIS B 7535 — 1982

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JAPANESE INDUSTRIAL STANDARD

J I S

Flow Type Air Gauges

B 7535-1982

1. Scope

This Japanese Industrial Standard specifies the indicating part of the flow type air gauges, hereinafter referred to as the "air gauges".

Remark: The units and the numerical values given in { } in this standard are in accordance with the Gravimetric System of Units, and are appended for reference.

2. Definitions

The definitions used in this standard shall be in accordance with JIS Z 8103 and other terms shall be as follows:

- (1) flow type air gauges The flow type air gauge means the comparator which converts micro displacement amount to an air amount flowed from the measuring head and indicates it by enlarging with the float in the taper tube.
- (2) measuring head The measuring head means the measuring device having an air flowing-out part, hereinafter referred to as the "nozzle", which generates the change of air flow with the displacement or the change of dimension by making the nozzle approach the measuring surface.

Applicable Standards:

JIS B 7505-Bourdon Tube Pressure Gauges

JIS B 7506-Gauge Blocks

JIS K 6771-Flexible Vinyl Tube

JIS Z 8103-Glossary of Terms Used in Instrumentation

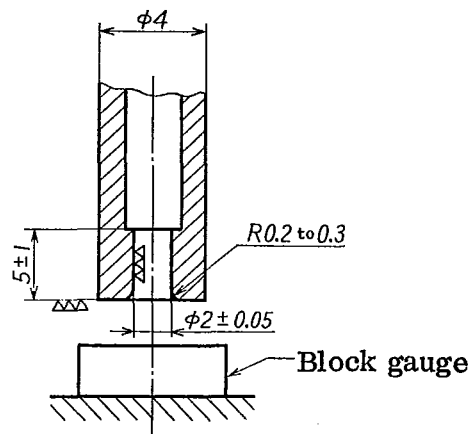
Reference Standard:

JIS Z 8703-Standard Atmospheric Conditions for Testing

- (3) multiplying factor The multiplying factor means the quotient of scale spacing divided by scale interval.
- (4) standard multiplying factor The standard multiplying factor means the multiplying factor as the standard of performance.
- (5) multiple type The multiple type means the air gauge having plural indicating parts.
- (6) effective indication range The effective indication range means the range capable of being effectively measured within the indication range (whole scale range).
- (7) standard nozzle The standard nozzle means the nozzle used for the test of air gauge (Refer to Fig. 1)

Fig. 1. Standard Nozzle

Unit: mm



- (8) reference point The reference point means the point indicating the graduation line as the standard for regulating multiplying factor in the test of performance, which decides the upper and lower limits of effective indication range.
- (9) maximum measuring clearance The maximum measuring clearance means the maximum clearance capable of being taken between the standard nozzle and the block gauge when the float indicates the graduation line of upper reference point in the case of regulating standard multiplying factor.

- (10) instrumental error The instrumental error means the difference between the value indicated by the block gauge equivalent to an arbitrary indicated value and the true value to be indicated after correctly adjusting the air gauge to the standard multiplying factor.

3. Names

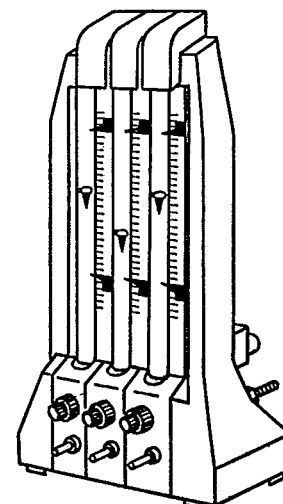
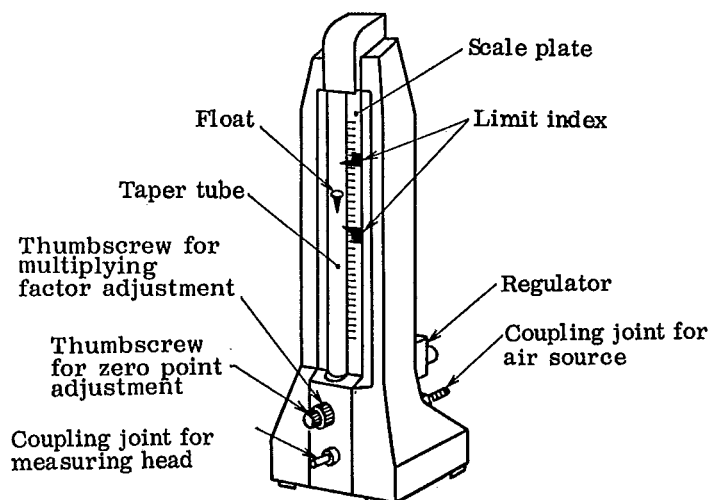
The names of main parts of air gauge shall be as given in Fig. 2.

The single type means that having a single taper tube and the multiple type, that having plural (not less than two) taper tubes.

Fig. 2. Names of Main Parts

(a) Single Type

(b) Multiple Type



Remark: Those figures are only to give the names, not to give the standard of shape and construction.

4. Standard Multiplying Factor

The standard multiplying factor of air gauges shall be 1000, 2000, 3000, 4000, 5000 and 10000 times.

5. Performance

The performance of air gauge, the test of which is carried out according to the test method specified in 7., shall be in accordance with Table 1.