SHIMPO INSTRUMENTS

Measuring Quality

MD Dial Type Air Gauge Display

The Series MD dial type air gauge, 1 or 2 channel micrometer display, is a precision, non-contact measuring instrument when combined with a customized air probe sensor. Air gauge measurement has been around for decades. It is a non-destructive testing method that utilizes air flow and the resistance created between an object under test and the air gauge's sensing probe. The air resistance or back pressure changes with distance between the air probe and device under test. This air pressure change out of the air sensor can be scaled on a display to determine dimensional analysis as well as product acceptance.

The MD Series dial type air gauge micrometer with separate, customized air probe sensor performs fast, easy and precise dimensional analysis repetitively on components or subassemblies. Unique adjustment functions allow for accurate magnification tuning over a wide range. The MD's are available in a single channel indicating the measurement of one part or a dual channel type which indicates the measurement of two parts at once providing a higher level of part pass/fail status.

The air gauge technology offers sufficient magnification and reliability to measure small tolerances down to 1 micron. High pressure air blows off dust, oil, etc. to ensure accurate measurement and a quick response. Due to its fast response, outstanding tolerance and accurate repeatability, Tosok air gauge micrometers are ideal for quality measurements on the production floor or in the lab.

Features

- *In coordination with the max./min. masters and the customized air probe sensor, air adjustment knobs enable accurate setting of the zero and full scale on the dial.*
- *Non-contact measurement eliminates the potential for damage to the test part.*
- *No Power Required; Simply connect compressed air line*
- *Pressurized air from the sensor cleans off oil and dust on the test pieces, assuring accurate measurement.*
- *Simplified operation and set up compared with digital models.*
- *Compact, lightweight, rugged display enclosure.*
- *Especially effective in QA/QC departments for quickly measuring components, parts, or subassemblies.*
- *Single channel models have min. and max. adjustable set point flags plus a single process indicator pointer while the dual channel models have an additional process indicator pointer (1 black and 1 red), facilitating the correlation and acceptance analysis of two dimensions simultaneously.*
- *Adjustable high/low limit flag indicators aid user in determining part acceptability.*

Series MD Specifications

Input	Compressed air
Measuring range µm	50, 100, *200 (*available in high pressure models only)
Scale Graduation µm	1, 2 , 5
Source Pressure	High Pressure Models: 57 psi (400 kPa) to 113.7 PSI (784 kPa) Low Pressure Models: 43.5 psi (300 kPa) 101.5 PSI (700 kPa)
Air Supply Volume	MD-14L 50 µm 40L/min 100 µm 50L/min 200 µm 70L/min MD-24L 50 µm 80L/min 100 µm 100L/min 200 µm 140L/min MD-14LL 50 µm 40L/min 100 µm 50L/min
Operating Temperature	32 to 113°F (0 to 45°C)
Dimensions	Single Channel: 7.5 x 6 x 7” (190 x 152 x 177) Dual Channel: 7.5 x 6 x 10.4” (190 x152 x 264)
Weight	Single Channel: 12 lb (5.4 kg) Dual Channel: 15.2 lb (6.9 kg)
Warranty	1 year

Ordering Details (Specify range at order)

MD-14L	Single Channel Dial Type Air Gauge Micrometer available in 50, 100 or 200 µm capacity scales.
MD-24L	Dual Channel Dial Type Air Gauge Micrometer in 50, 100 or 200 µm capacity scales.
MD-14LL	Single Channel Dial Type, Low Pressure Air Gauge Micrometer available in 50 or 100 µm capacity scales.

Accessories

FUA-703	Air Filter & oil Separator -manual drain
CAG2000-OP-AR	Precision Regulator