

### CAG-2000 Air Gauge Display with Vertical Bar Graph

**The Series CAG-2000 1 or 2 channel air gauge, 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 change in back pressure in the sensor is scaled on a display to determine dimensional analysis as well as product acceptance.

The CAG-2000 Gauge display with separate, customized air probe sensor performs fast, easy and precise dimensional analysis on components. Pass/Fail feedback is instant with the integral easy view three-color LED bar-graph display. Column displays can also be conveniently daisy-chained with additional units to allow quick inspections of multiple dimensions with various sensors. All CAG-2000's come standard with RS-232 serial communications for data analysis on PC's. An Excel spreadsheet program is available for download for free from the Shimpo website that allows communication with up to 5 units simultaneously.

The air gauge technology offers sufficient magnification and reliability to measure small tolerances down to 0.1 micron and even 0.01 micron with the 10 micron range. Due to its fast response, outstanding tolerance and accurate repeatability, Tosok air gauge micrometers are ideal for quality measurements on the production floor.



#### Features

- Red/Orange/Green 3- color, 101 segment bar graph display with programmable set points makes it easy to quickly view measurements and make go/no-go judgments
- Actual values presented on the 8-digit alphanumeric display
- The display can be programmed to show technical drawing tolerances
- In coordination with the max./min. masters and the air probe sensor, control keys are used to automatically calibrate the zero and full scale of the display
- Possesses a slim 2" (50mm) wide frame allowing for placement on any bench, plus enables a small foot-print when daisy-chaining units
- 10 types of setting can be programmed to save master values allowing quick retrieval for future tests
- Sensitivity adjustment knob allows fine tuning for more precise air control
- External signal input allows for automatic master calibration of zero and span with separate input switch
- Utilizing the standard serial output communications, data can be downloaded to a PC for processing and further evaluation
- Ranges down to 10 micron.
- Several options are available such as judgment result output, rank output, BCD output, and Digimatic output.
- If choosing a 2 channel sensor input, evaluation of three parameters consisting of 2 measurements along with their arithmetic result can be performed with a single column display.

## CAG-2000 Specifications

<b>Input</b>	1 air channel; Optional 2 air channels
<b>Measuring range <math>\mu\text{m}</math> (mm)</b>	10 (0.0100), 20 (0.0200), 50 (0.0500), 100 (0.100), 200 (0.200)
<b>Resolution in <math>\mu\text{m}</math> (mm)</b>	0.01 (0.0001), 0.2 (0.0002), 0.5 (0.0005), 1 (0.001), 2 (0.002)
<b>Shift Range</b>	$\pm 1000\%$ (full scale)
<b>Display</b>	Bar graph: 101 segment 3 color with Green (OK), Red (No Go) Measurement Values: 7 digits plus decimal point
<b>Auto Mastering Range</b>	Zero position: $\pm 50\%$ (full scale) Sensitivity: $\pm 20\%$ (full scale)
<b>Power Requirement</b>	85 to 264 VAC, 50/60 Hz 100-VAC
<b>Power Supply Capacity</b>	30 VA
<b>Air Supply Pressure</b>	28.4 psi (196 kPa)
<b>Source Pressure</b>	43.5 psi (300 kPa) to 101.5 psi (700 kPa)
<b>Air Supply Volume</b>	1 CH: 106 cfh (50 l/min) 2 CH: 212 cfh (100 l/min)
<b>Operating Temperature</b>	32 to 113°F (0 to 45°C)
<b>Dimensions</b>	2" wide x 19" high x 8" deep (50 × 480 × 200 mm)
<b>Weight</b>	8.8 lb (4 kg)
<b>Warranty</b>	1 Year



Customized Air Probe Sensor with  
Maximum & Minimum  
Calibration Masters.  
Ordered separately.

## Ordering Details

<b>CAG2001-1</b>	Air gauge micrometer display with 10 micron range, 1 channel
<b>CAG2002-1</b>	Air gauge micrometer display with 20 micron range, 1 channel
<b>CAG2005-1</b>	Air gauge micrometer display with 50 micron range, 1 channel
<b>CAG2010-1</b>	Air gauge micrometer display with 100 micron range, 1 channel
<b>CAG2020-1</b>	Air gauge micrometer display with 200 micron range, 1 channel

\*Note: Change -1 to -2 for 2 Channel version.

## Options

<b>-DP</b>	Digimatic Output
<b>-DC</b>	Output
<b>-P</b>	Peak Measurement Function
<b>-R</b>	Rank Display Function
<b>-DR</b>	Rank Output
<b>-BC</b>	BCD Output

## Optional Accessories

<b>CAG2000-OP-AF</b>	Air Filter & oil Separator with manual drain
<b>CAG2000-OP-AR</b>	Precision Regulator
<b>CAG2000-OP-CB-1</b>	RS-232 Communication Cable 9 pin for PC
<b>Foot Switch</b>	Foot Switch Input



CAG-2000  
Shown Stacked  
in Multiple Columns

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