Nidec

Measuring Quality

CAG-3000 Air Gauge Display with Vertical Bar Graph

The Series CAG-3000 column type 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 can be scaled on a display to determine dimensional analysis as well as product acceptance.

The CAG-3000 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-3000's come standard with RS-232 serial communications for data analysis on PLC'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. 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 light weight and 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*
- *Optional peak function or rank output available*

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CAG-3000 Specifications

Input	1 air channel
Measuring range µm (mm)	20 (0.0200), 50 (0.0500), 100 (0.100)
Resolution in µm (mm)	0.2 (0.0002), 0.5 (0.0005), 1 (0.001)
Shift Range	±1000% (full scale)
Display	Bar graph: 101 segment 3 color with Green (OK), Red (No Go) Measurement Values: 7 digits plus decimal point
Auto Mastering Range	Zero position: ±50% (full scale) Sensitivity: ±20% (full scale)
Power Requirement	85 to 264 VAC, 50/60 Hz 100-VAC
Power Supply Capacity	30 VA
Air Supply Pressure	28.4 psi (196 kPa)
Source Pressure	58 to 87 psi (400 to 600 kPa)
Air Supply Volume	106 cfh (50 l/min)
Operating Temperature	32 to 113°F (0 to 45°C)
Dimensions	2" wide x 19" high x 8" deep (50 × 480 × 200 mm)
Weight	4.4 lb (2 kg)
Warranty	1 Year

Ordering Details

CAG3002-103	Air gauge micrometer display with 20 micron range
CAG3005-111	Air gauge micrometer display with 50 micron range
CAG3010-111	Air gauge micrometer display with 100 micron range

Options

-P	Peak Measurement Function
-R	Rank Display Function

Optional Accessories

CAG2000-OP-AF	Air Filter & oil Separator with manual drain
CAG2000-OP-AR	Precision Regulator
CAG2000-OP-CB-1	RS-232 Communication Cable for PC; 9 pin

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

CAG-3000 Shown Stacked in Multiple Columns

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