

### CEG-2000 Electric Gauge Display with Vertical Bar Graph; 2 or 4 CH

**The Series CEG-2000 2 or 4 Channel Electric Gauge display is a precision, contact-measuring instrument when combined with an electronic probe sensor.** Electric gauging measurement is a precise, non-destructive, contact testing method that utilizes a sensing probe connected to a display to determine dimensional analysis. Tosok electric sensing probes have spring loaded points on the sensor that create displacement when pushed into or around the dimension in question on the part. Utilizing LVDT sensing technology, the sensor proportionally scales an output that is interpreted by the CEG display as a dimensional value.

The CEG-2000 Electric Gauge display with separate, customized 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. Two or four input channel models are available allowing multiple dimensions with various sensors to be connected to the same display. All CEG-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 Tosok electric gauge with LVDT technology offers sufficient magnification and reliability to measure small tolerances down to 0.05 micron. Due to its fast response, outstanding tolerance and accurate repeatability, Tosok electric 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, control keys are used to automatically calibrate the zero and full scale of the display
- Possesses a light weight and slim 2" (50 mm) wide frame allowing for placement on any bench, plus enables a small foot-print when daisy-chaining units
- 10 settings can be programmed to save master values allowing quick retrieval for future tests
- 2 or 4 electrical sensor input models available to aid in using the same display with multiple sensors as well as choose various mathematical calculations between sensors.
- Utilizing the standard serial output communications, data can be downloaded to a PC for processing and further evaluation
- Digimatic or judgment output options available

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## CEG-2000 Specifications

|                                                      |                                                                                                        |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Input</b>                                         | 2 channels. Optional 4 channels                                                                        |
| <b>Comparison Calculations</b>                       | 1-2, 1+2, 2-1, AVE (1-2), AVE (1+2), AVE (2-1)                                                         |
| <b>Measuring Range <math>\mu\text{m}</math> (mm)</b> | 5 (0.00500), 10 (0.0100), 20 (0.0200), 50 (0.0500), 100 (0.100), 200 (0.200), 500 (0.500), 1000 (1.00) |
| <b>Resolution in <math>\mu\text{m}</math> (mm)</b>   | 0.05 (0.00005), 0.1 (0.0001), 0.2 (0.0002), 0.5 (0.0005), 1 (0.001), 2 (0.002), 5 (0.005), 10 (0.01)   |
| <b>Shift Range</b>                                   | $\pm 300\%$ (full scale)                                                                               |
| <b>Display</b>                                       | Bar graph: 101 segment 3 color with Green (OK), Red (No Go);<br>Measurement Values: 8 digits           |
| <b>Auto Mastering Range</b>                          | Small Limit: $\pm 50\%$ (full scale);<br>Large Limit: $\pm 20\%$ (full scale)                          |
| <b>Power Requirement</b>                             | 85 to 264 VAC, 50/60 Hz 100-VAC                                                                        |
| <b>Power Supply Capacity</b>                         | 30 VA                                                                                                  |
| <b>Operating Temperature</b>                         | 32 to 113°F (0 to 45°C)                                                                                |
| <b>External Inputs</b>                               | Measurement, reset, large limit, small limit                                                           |
| <b>Serial Output</b>                                 | RS-232                                                                                                 |
| <b>Decision Output (optional)</b>                    | 8 (DC12/24V)                                                                                           |
| <b>BCD Output (optional)</b>                         | 1 set (DC12/24V)                                                                                       |
| <b>Analog Input</b>                                  | 4 (connection to column)                                                                               |
| <b>Dimensions</b>                                    | 2" wide x 19" high x 8" deep<br>(50 × 480 × 200 mm)                                                    |
| <b>Weight</b>                                        | 8.8 lb (4 kg)                                                                                          |
| <b>Warranty</b>                                      | 1 year                                                                                                 |

## Ordering Details

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| <b>CEG-2000-2</b> | 2 channel electrical input CEG micrometer vertical display |
| <b>CEG-2000-4</b> | 4 channel electrical input CEG micrometer vertical display |

## Optional Accessories

|                        |                                            |
|------------------------|--------------------------------------------|
| <b>CAG2000-OP-CB-1</b> | RS-232 Communication Cable<br>9 pin for PC |
|------------------------|--------------------------------------------|



Customized Electric LVDT Sensor ordered separately.



CEG-2000 Shown Stacked in Multiple Columns

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