

## Depth Micrometer

### SERIES 329, 129 — Interchangeable Rod Type

#### Functions of series 329

**Origin point setting** (ABS measurement system): Resets the ABS origin at the current spindle position to the minimum value of the measuring range and switches to ABS mode.

**Zero-setting** (INC measurement system):

A brief press on the ZERO/ABS button sets display to zero at the current spindle position and switches to the incremental (INC) measuring mode. A longer press resets to the ABS measuring mode.

#### Hold:

Pressing the HOLD button freezes the current value in the display. This function is useful for preserving a measurement in situations of poor visibility where the instrument must be moved away from the workpiece before the reading can be recorded.

#### Data output:

Models equipped with this function have an output port for transferring measurement data to a Statistical Process Control (SPC) system.

#### Auto power ON/OFF:

The reading on the LCD disappears after this instrument is idle for about 20 minutes, but the reading and measurement mode are retained. Turning the spindle causes the reading to reappear.

#### Error alarm:

In case of an overflow on the LCD or a computing error, an error message appears on the LCD, and the measuring function stops. This prevents an instrument from giving an erroneous reading. Also, when the battery voltage drops to a certain level, the low-battery-voltage alarm annunciator appears well before the micrometer becomes unusable.

#### Function lock:

This function allows the PRESET (origin point setting) function and the ZERO (zero-setting) function to be locked to prevent these points being reset accidentally.

#### Optional Accessories

| Order No. | Type            | Description                                       |
|-----------|-----------------|---|
| 05CZA662  | B               | Connecting cables (1 m)                           |
| 05CZA663  | B               | Connecting cables (2 m)                           |
| 06AFM380B | B               | USB Input Tool Direct (2 m)                       |
| 02AZD790B | B               | Connecting cables for U-WAVE-T (160 mm)           |
| 02AZE140B | B               | Connecting cables for U-WAVE-T<br>For foot switch |
| 264-622   | IP67            | U-WAVE-TM   |
| 264-623   | Buzzer          | U-WAVE-TM   |
| 264-626   | IP67            | U-WAVE-TMB Transmitter                            |
| 264-627   | Buzzer          | U-WAVE-TMB Transmitter                            |
| 02AZF310  | IP67/<br>buzzer | Connecting unit for U-WAVE-TM                     |

- Interchangeable rods enable a wide-range measurement.

- Series 329 with data output function (Refer to page A-3).



329-250-30

#### SPECIFICATIONS

##### Metric

| Order No.       | Range (mm) | Resolution (mm) | Base (mm) | Spindle feed error (μm) | Flatness of reference surface (base) (μm) | Flatness of measuring face (rod) (μm) | Parallelism between reference face and measuring rod face (μm) | Zero point error of rods (μm) | No. of rods |
|-----------------|------------|-----------------|-----------|-------------------------|---|---------------------------------------|--|-------------------------------|-------------|
| Digimatic (LCD) |            |                 |           |                         |   |                                       |  |                               |             |
| 329-250-30      | 0 - 150    | 0.001           | 101.6x16  | 3                       | 2   | 0.3                                   | 7  | ±4                            | 6           |
| 329-251-30      | 0 - 300    |                 |           |                         |   |                                       | 10   | ±6                            | 12          |

##### Inch / Metric

| Order No.       | Range (in) | Resolution              | Base (in) | Spindle feed error  | Flatness of reference surface(base) (in) | Flatness of measuring face (rod) (in) | Parallelism between reference face and measuring rod face (in) | Zero point error of rods (in) | No. of rods |
|-----------------|------------|-------------------------|-----------|---------------------|--|---------------------------------------|--|-------------------------------|-------------|
| Digimatic (LCD) |            |                         |           |                     |  |                                       |  |                               |             |
| 329-350-30      | 0 - 6      | 0.00005 in/<br>0.001 mm | 4x0.63    | 0.00015 in/<br>3 μm | 0.00008                                  | 0.000012                              | 0.00035  | ±0.0002                       | 6           |
| 329-351-30      | 0 - 12     | 0.0001 in/<br>0.001 mm  |           |                     |  |                                       | 0.0005   | ±0.0003                       | 12          |

##### Metric

| Order No. | Range (mm) | Graduation (mm) | Base (mm) | Spindle feed error (μm) | Flatness of reference surface (base) (μm) | Flatness of measuring face (rod) (μm) | Parallelism between reference face and measuring rod face (μm) | Zero point error of rods (μm) | No. of rods |
|-----------|------------|-----------------|-----------|-------------------------|---|---------------------------------------|--|-------------------------------|-------------|
| Analog    |            |                 |           |                         |   |                                       |  |                               |             |
| 129-154   | 0 - 25     |                 | 63.5x16   |                         | 1.3                                       |                                       | 5  | 3                             | 1           |
| 129-155   |            |                 | 101.6x16  |                         | 2   |                                       | 5  | 3                             |             |
| 129-109   | 0 - 50     |                 | 63.5x16   |                         | 1.3                                       |                                       | 5  | 3                             | 2           |
| 129-113   |            |                 | 101.6x16  |                         | 2   |                                       | 6  | 3                             |             |
| 129-110   | 0 - 75     |                 | 63.5x16   |                         | 1.3                                       |                                       | 6  | 3                             | 3           |
| 129-114   |            |                 | 101.6x16  |                         | 2   |                                       | 6  | 4                             |             |
| 129-111   | 0 - 100    |                 | 63.5x16   |                         | 1.3                                       |                                       | 6  | 4                             | 4           |
| 129-115   |            |                 | 101.6x16  |                         | 2   |                                       | 7  | 4                             |             |
| 129-111   | 0 - 150    |                 | 63.5x16   |                         | 1.3                                       |                                       | 7  | 4                             | 6           |
| 129-116   |            |                 | 101.6x16  |                         | 2   |                                       | 7  | 4                             |             |
| 129-152   | 0 - 300    |                 | 63.5x16   |                         | 1.3                                       |                                       | 10   | 6                             | 12          |
| 129-153   |            |                 | 101.6x16  |                         | 2   |                                       | 10   | 6                             |             |

##### Inch

| Order No. | Range (in) | Graduation (in) | Base (in) | Spindle feed error (in) | Flatness of reference surface (base) (in) | Flatness of measuring face (rod) (in) | Parallelism between reference face and measuring rod face (in) | Zero point error of rods (in) | No. of rods |
|-----------|------------|-----------------|-----------|-------------------------|---|---------------------------------------|--|-------------------------------|-------------|
| Analog    |            |                 |           |                         |   |                                       |  |                               |             |
| 129-129   | 0 - 2      |                 | 4x0.63    |                         | 0.00008                                   |                                       | 0.00025  | 0.00015                       | 2           |
| 129-126   | 0 - 3      |                 | 2.5x0.63  |                         | 0.00005                                   |                                       | 0.00030  | 0.00015                       | 3           |
| 129-130   |            |                 | 4x0.63    |                         | 0.00008                                   |                                       | 0.00030  | 0.00015                       |             |
| 129-127   | 0 - 4      |                 | 2.5x0.63  |                         | 0.00005                                   |                                       | 0.00030  | 0.00020                       | 4           |
| 129-131   |            |                 | 4x0.63    |                         | 0.00008                                   |                                       | 0.00030  | 0.00020                       |             |
| 129-128   | 0 - 6      |                 | 2.5x0.63  |                         | 0.00005                                   |                                       | 0.00035  | 0.00020                       | 6           |
| 129-132   |            |                 | 4x0.63    |                         | 0.00008                                   |                                       | 0.00035  | 0.00020                       |             |
| 129-149   | 0 - 12     |                 | 2.5x0.63  |                         | 0.00005                                   |                                       | 0.00050  | 0.00030                       | 12          |
| 129-150   |            |                 | 4x0.63    |                         | 0.00008                                   |                                       | 0.00050  | 0.00030                       |             |

• Battery\*: SR44 (1 pc.), **938882**, for initial operational checks (standard accessory)

• Battery life\*. Approx. 2.4 years under normal use

\* Digimatic models

\* Scale type: Electromagnetic induction absolute encoder

\* Standard Accessories: **301336** Spanner, **04GAA274** Spanner, **202863** Hex-Spanner