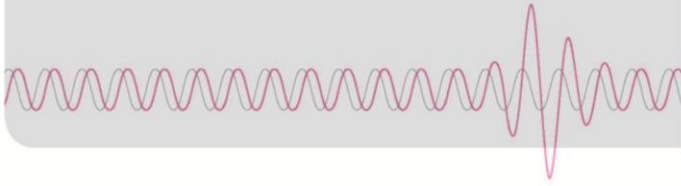


# METES 12 | 32.

## SPECIFICATIONS



|                               |   |  |  |
|-------------------------------|---|--|--|
| <b>System concept</b>         | Single- and three-phase reference meters for testing electricity meters. Two versions of the single-phase reference meter are available, designed for direct current measurement or for use with error-compensated current clamps (KoCoS <i>SmartProbe</i> technology). The devices are operated and controlled using just four function keys. All the measurement data and necessary parameters are saved in an internal memory. The measurement electronics are accommodated in a robust, waterproof housing. |  |  |
| <b>Product specifications</b> | <b>METES 12.1 - Internal</b>  | Single phase reference meter with internal current measurement. Ideal for testing prepayment meters.   |  |
|                               | <b>METES 12.2 - External</b>  | Identical to METES 12.1, but uses error-compensated current clamps for current measurement. Ideal for testing Ferraris electricity meters.   |  |
|                               | <b>METES 32</b>   | Portable, three-phase reference meter for testing electronic and Ferraris electricity meters.  |  |
| <b>Functions</b>              | <b>Measurement functions</b>  | Meter testing  | Determination of the accuracy of electricity meters, with direct error display.  |
|                               |   | Measured quantities  | Voltage<br>Current<br>Frequency<br>Phase angle<br>Power factor<br>Power quantities (W, var, VA) per phase and in total                               |
|                               | <b>Current measurement</b>  | METES 12.1   | Direct current measurement with high-precision current transducers. Measuring ranges: 1 A, 5 A, 15 A. Manual or automatic measuring range selection. |
|                               |   | METES 12.2 / 32  | Current measurement with external current clamp(s). Measuring ranges: 1 A, 10 A, 100 A. Manual or automatic measuring range selection.               |
|                               | <b>Data storage</b>   | Measured values and test results are stored in an internal database. Using the software provided, this data can be transferred to an external PC for test report generation and archiving. |  |
| <b>Complete system</b>        | <b>Environment</b>  | Operating temperature  | 0 to 50°C  |
|                               |   | Storage temperature  | -20 to 60°C  |
|                               |   | Relative humidity  | 5 to 90%, non-condensing   |
|                               |   | Safety standard  | EN 61010-1 300 V~CAT II  |
|                               |   | EMC emissions  | EN 50081-2 industrial  |
|                               |   | Susceptibility   | EN 50082-2 industrial  |

**Product specifications**

|   | <b>METES 12.1</b>                | <b>METES 12.2</b>                | <b>METES 32</b>                  |
|---|----------------------------------|----------------------------------|----------------------------------|
| <b>Measuring ranges</b>                                       |                                  |                                  |                                  |
| Voltage   | 1 x 85 to 250 VAC                | 1 x 85 to 250 VAC                | 3 x 85 to 250 VAC                |
| Current, direct   | 1 x 1, 5, 15 AAC                 |                                  |                                  |
| Current clamp   |                                  | 1 x 1, 10, 100 AAC               | 3 x 1, 10, 100 AAC               |
| Frequency range   | 50 and 60 Hz                     | 50 and 60 Hz                     | 50 and 60 Hz                     |
| <b>Accuracy class</b>   |                                  |                                  |                                  |
|   | 0.2                              | 0.2                              | 0.2                              |
| <b>Inputs for scanning heads</b>                              |                                  |                                  |                                  |
|   | 1                                | 1                                | 1                                |
| <b>Display</b>  |                                  |                                  |                                  |
| Alpha-numeric LCD screen,<br>4 x 20 characters                | ■                                | ■                                | ■                                |
| <b>Operation</b>  |                                  |                                  |                                  |
| Membrane keypad, 3x4 matrix<br>and 4 function keys            | ■                                | ■                                | ■                                |
| <b>Memory</b>   |                                  |                                  |                                  |
| 128 MB multi-media card                                       | □                                | □                                | □                                |
| <b>Power supply</b>   |                                  |                                  |                                  |
| 85 to 265 VAC, 45 to 65 Hz<br>Supplied by measurement circuit | ■                                | ■                                | ■                                |
| <b>Interfaces</b>   |                                  |                                  |                                  |
| RS232   | □                                | □                                | □                                |
| USB   | □                                | □                                | □                                |
| <b>Housing</b>  |                                  |                                  |                                  |
|   | Polycarbonate<br>waterproof case | Polycarbonate<br>waterproof case | Polycarbonate<br>waterproof case |
| Dimensions<br>(W x H x D) [mm]                                | 230x170x100                      | 230x170x100                      | 230x170x100                      |
| Weight  | 0.6 kg                           | 0.6 kg                           | 0.8 kg                           |
| <b>Scope of delivery</b>                                      |                                  |                                  |                                  |
| Connecting leads for voltage                                  | ■                                | ■                                | ■                                |
| Connecting leads for current                                  | ■                                |                                  |                                  |
| Current clamps  |                                  | 1                                | 3                                |
| Scanning head<br>for electronic meters                        | ■                                | ■                                | ■                                |
| Hand switch<br>for Ferraris meters                            | ■                                | ■                                | ■                                |
| Scanning head<br>for LED and meter disc                       | □                                | □                                | □                                |

■ Standard

□ Optional