# Hand-Held multifunction process calibrators // MC 50.2

for electrical signals




*MC 50.2*

## Highlights

- Highest accuracy
- Generation of RTD-, TC-, mA- and V signals as well as frequency and pulses
- For mobile on-site calibration

| Technical data | |
|---|---|
| **Resistance thermometers (RTD)** | |
| **Generation and measurement of RTD signals** | Pt50, Pt100, Pt200, Pt500, Pt1000, Cu10, Cu50, Ni100, Ni120, Ni1000 |
| **Ω-generator function** | 0...4000 Ω |
| **Ω-measurement function** | 0...4000 Ω |
| **Accuracy (of reading + const.)** | ±0.012 % |
| **Selectable temperature unit** | °C / °F |
| **Measurement of multi-wire connections** | 2 / 3 / 4 |
| **Thermocouples (TC)** | |
| **Generation and measurement of TC signals** | J, K, T, R, S, B, N, E, U, L |
| **mV-generator function** | 0...100 mV |
| **mV-measurement function** | 0...100 mV |
| **Accuracy (of reading + const.)** | ±0.013 % |
| **Selectable temperature unit** | °C / °F |
| **Internal comparison point** | ±0.3 °C |
| **Current (mA)** | |
| **Loop current signal generation** | 0(4)...24 mA |
| **Loop current signal measurement** | 0(4)...50 mA |
| **Accuracy (of reading + const.)** | ±0.0175 % |
| **Current loop supply** | 24 V ±10 %, 22 mA |
| **HART Communication protective resistor** | 250 Ω |
| **Voltage (V)** | |
| **Voltage signal generation** | 0...20 V |
| **Voltage signal measurement** | 0...50 V |
| **Accuracy (of reading + const.)** | ±0.015 % |


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# Technical data

| Technical data | |
|---|---|
| **Continuity (O/C)** | |
| **Continuity measurement** | O / C |
| **Switching threshold „open“** | 1 kΩ |
| **Frequency and pulse (Hz)** | |
| **Frequency and pulse signal generation** | 0.01 Hz...10 kHz |
| **Frequency and pulse signal measurement** | 0.01 Hz...20 kHz |
| **Accuracy (of reading + const.)** | ±0.005 % |

| Functions | |
|---|---|
| **Generation** | |
| **High-speed call values** | 10 points (flexible) |
| **Linear steps and ramps** | ✓ |
| **User-defined synthesiser values** | 100 |
| **User-defined signal output characteristic** | 10 points |
| **Editable units** | ✓ |
| **Transmitter function simulation** | |
| **Measurement** | |
| **Data memory** | |
| **Value tables and graphics function** | |
| **Offset programming for sensor characteristic** | ✓ |
| **Calibration data files and linearisation points** | |
| **User-defined measuring input characteristic** | 10 points |
| **Editable units** | ✓ |
| **Measured value min. / max.** | ✓ |
| **Averaging function** | ✓ |

| General data | |
|---|---|
| **Features** | |
| **Sensor connection** | 4 safety sockets (1 channel) incl. 2 sets<br>with safety instrument leads (4 mm) and alligator clips |
| **Power supply** | Rechargeable battery including power adapter, 230 VAC / 12 VDC |
| **Operator guidance** | Menu with pull-down windows<br>Separate channels for parallel signal processing |
| **Display** | Multifunction display, double-LCD, 2 x 6 digit, illuminated |
| **Housing** | |
| **Version** | ABS plastic with protective cover |
| **Dimensions** | 110 x 210 x 50 mm (H x W x D) |
| **Weight** | Approx. 900 g |


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# Article numbers

| Order code | | |
|---|---|---|
| **Type** | **Version** | **Order number** |
| MC 50.2 | Accuracy ±0.0175 % of reading + const. | EME8AOMC050200 |

| Order code | |
|---|---|
| **Accessories** | **Order number** |
| DAkkS certificate | EKSIMMULTI000D |
| SIKA works calibration certificate | EKSIMMULTI000W |
| Transport case | EME8GKK3100000 |
| Plug connector 4 mm, red | EME8AOSKLS40RT |
| Plug connector 4 mm, black | EME8AOSKLS40SW |


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