

# 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)

<b>Generation and measurement of RTD signals</b>	Pt50, Pt100, Pt200, Pt500, Pt1000, Cu10, Cu50, Ni100, Ni120, Ni1000
<b><math>\Omega</math>-generator function</b>	0...4000 $\Omega$
<b><math>\Omega</math>-measurement function</b>	0...4000 $\Omega$
<b>Accuracy (of reading + const.)</b>	$\pm 0.012$ %
<b>Selectable temperature unit</b>	$^{\circ}\text{C}$ / $^{\circ}\text{F}$
<b>Measurement of multi-wire connections</b>	2 / 3 / 4

### Thermocouples (TC)

<b>Generation and measurement of TC signals</b>	J, K, T, R, S, B, N, E, U, L
<b>mV-generator function</b>	0...100 mV
<b>mV-measurement function</b>	0...100 mV
<b>Accuracy (of reading + const.)</b>	$\pm 0.013$ %
<b>Selectable temperature unit</b>	$^{\circ}\text{C}$ / $^{\circ}\text{F}$
<b>Internal comparison point</b>	$\pm 0.3$ $^{\circ}\text{C}$

### Current (mA)

<b>Loop current signal generation</b>	0(4)...24 mA
<b>Loop current signal measurement</b>	0(4)...50 mA
<b>Accuracy (of reading + const.)</b>	$\pm 0.0175$ %
<b>Current loop supply</b>	24 V $\pm 10$ %, 22 mA
<b>HART Communication protective resistor</b>	250 $\Omega$

### Voltage (V)

<b>Voltage signal generation</b>	0...20 V
<b>Voltage signal measurement</b>	0...50 V
<b>Accuracy (of reading + const.)</b>	$\pm 0.015$ %

# Technical data

Technical data	
<b>Continuity (O/C)</b>	
Continuity measurement	O / C
Switching threshold „open“	1 kΩ
<b>Frequency and pulse (Hz)</b>	
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	
<b>Generation</b>	
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	
<b>Measurement</b>	
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	
<b>Features</b>	
Sensor connection	4 safety sockets (1 channel) incl. 2 sets with safety instrument leads (4 mm) and alligator clips
Power supply	Rechargeable battery including power adapter, 230 VAC / 12 VDC
PC Interface	mini-USB Type B
Operator guidance	Menu with pull-down windows Separate channels for parallel signal processing Programming and control via PC
Display	Multifunction display, double-LCD, 2 x 6 digit, illuminated
<b>Housing</b>	
Version	ABS plastic with protective cover
Dimensions	110 x 210 x 50 mm (H x W x D)
Weight	Approx. 900 g

# Article numbers

Order code		
Type	Version	Order number
MC 50.2	Accuracy $\pm 0.0175$ % of reading + const.	EME8AOMC050200

Order code	
Accessories	Order number
DAkkS certificate	EKSIMMONO0000D
SIKA works calibration certificate	EKSIMMONO0000W
Transport case	EME8GKK3100000
Plug connector 4 mm, red	EME8AOSKLS40RT
Plug connector 4 mm, black	EME8AOSKLS40SW