

Process Multimeter // EC 7

Voltage / Current / Temperature / Resistance



Highlights

- Digital multimeter measurement functions
- Multifunction Process Calibrator (measure and source)
- Output 4...20 mA, TC, RTD, Frequency, DC V, Ohms
- Internal 24 V loop power – no need for an external supply

Process Multimeter SIKA EC 7

The SIKA EC 7 is the ideal solution if you are looking for a compact and robust device that combines reliable multimeter functionality with professional process signal calibration in harsh environments.

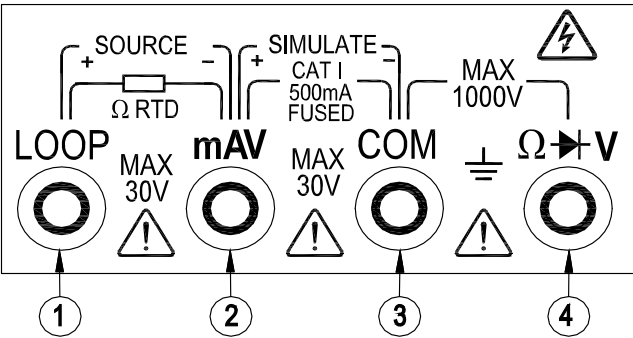
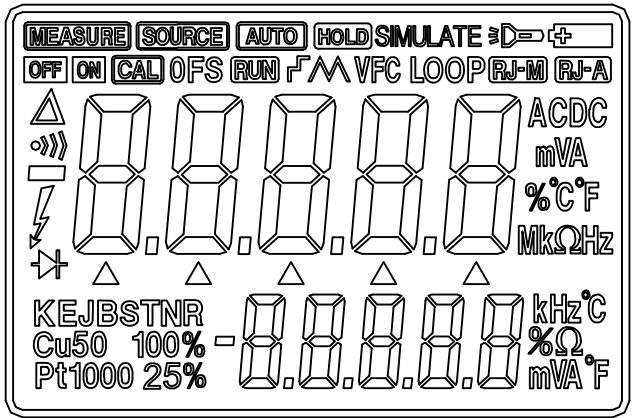
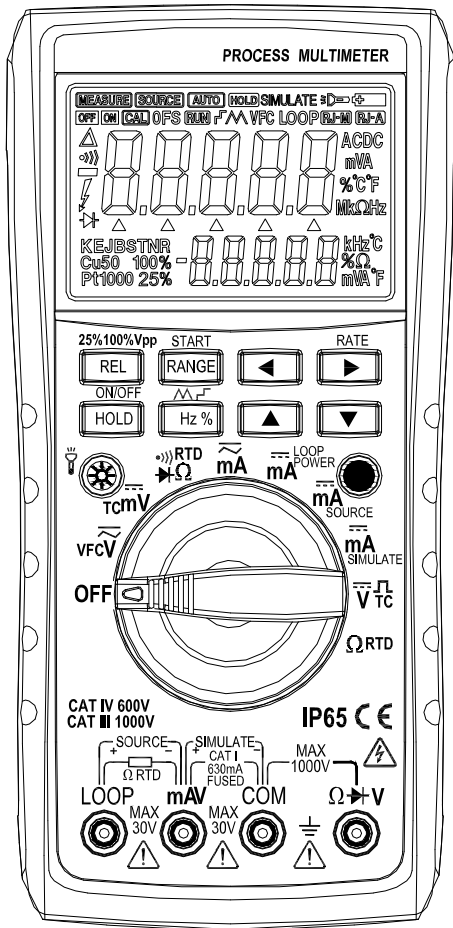
This is an industrial instrument powered by a battery for use in field maintenance. Instrumentation and process technicians can take more flexible measurements or source different process signals, while carrying significantly less equipment.

Measurement functions

Measurement	Signal	+/- (% of reading + c)
Voltage		
AC (V _{AC}) true RMS	6 V, 60 V, 600 V	0.5 %
DC (V _{DC})	60 mV, 600 mV, 6 V, 60 V, 600 V, 1000 V	0.2 %
Current		
AC (I _{AC})	60 mA, 600 mA	0.5 %
DC (I _{DC})	60 mA, 600 mA	0.2 %
Temperature		
TC (°C/°F)	R, S, B, K, E, J, T, N	0.5 %
RTD (°C/°F)	Cu50, Pt100, Pt1000	0.5 %
Resistance		
Ohm (Ω)	600 Ω, 6 kΩ, 60 kΩ	0.2 %
	600 kΩ	0.5 %
	6 MΩ	1.0 %
	60 MΩ	2.0 %
Frequency (Hz)	10 Hz, 100 Hz, 1000 Hz, 10 kHz	0.02 %
Diodes	up to 2 V	1.0 %
Continuity (O/C)	up to 600 Ω	0.2 %

Output functions

Measurement	Signal	+/- (% of reading + c)
Voltage		
DC (V _{DC})	100 mV, 1000 mV, 10 V	0.2 %
Current		
DC current (I _{DC})	-30 mA, 30 mA	0.2 %
Temperature		
TC (°C/°F)	R, S, B, K, E, J, T, N	0.2 %
RTD (°C/°F)	Cu50, Pt100	0.2 %
Resistance		
Ohm (Ω)	400 Ω	0.2 %
Frequency (Hz)	100 Hz, 1 kHz, 5 kHz, 10 kHz	0.2 %
Loop supply (V _{DC})	24 V @ 35 mA, 600 Ω	



Technical data

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Type	EC 7
Display	5-digit multifunction LCD, 65 x 48 mm
Operating panel	Rubber keys and rotary switch
Compartment door	Easy replacement of batteries and fuses
Flashlight / Backlight	Built-in light sources aid in low light environments
Safety standards	IEC 61010, pollution grade two, 600 V CAT. IV, 1000 V CAT. III
Operating conditions	0...40 °C ≤ 85 % rH, 0...50 °C ≤ 80 % rH (non-condensing)
Storage conditions	-20...60 °C rH ≤ 90 % (non-condensing)
Application environment	Indoor and outdoor, (non-waterproof), altitude of 0...2000 m
Temperature coefficient	0.1 x basic accuracy / °C (temperature range <18 °C or >28 °C)
Temperature display	°C, °F
TC Cold-junction	Automatic, manually
VFC low-pass filter	Enables accurate readings on VFDs and noisy signals
HOLD function	Data display and retention of measured values
REL function	Measurement of relative values
True AC RMS	Measurement bandwidth 20...1000 Hz
Range selection	Automatic, manually
Measurement rate	Fast (20 times/sec), slow (5 times/second)
Output signal selection	Constant, manual stepping, simulate, custom output
DC current outputs	mA and % values display simultaneously 25 % and 100 % manual stepping automatic stepping, automatic ramp, custom
Loop power mode	24V loop power supply is provided internally (make own selection)
Batteries	3 x AA (1.5 V), low battery detection, auto-off function
Service life of batteries	132 hours (typical, measurement), 13 hours (typical, source 20 mA)
Protection level	IP65 dustproof and resistant to water spray
Vibration proof	Random, 2g, 5...500 Hz
Impact testing	1 m drop test
Dimensions	185 mm (H) x 90 mm (W) x 54 mm (D)
Weight	approximately 500 g
Calibrating period	1 year
Warranty	1 year

Scope of delivery

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Process multimeter SIKA EC 7
One pair of testing leads (including alligator clips)
One operating manual
Three 1.5 V alkaline cells (LR6)
One 630 mA / 250 V fast-acting fuse

Article numbers

Order code	
Type	Order number
Process Multimeter EC 7	EME8VCEC007000
Optional Accessories	
Magnetic hanging strap	TBD