ALIACA
Multi-Function Calibrator
Model ACA50 Series

GENERAL

ALIACA The ACA50 Series signal calibrator can measure and output multiple signals including voltage, current, TC and thermal resistance. The adoption of high definition LCD screen and silicone keypad is convenient for operating. With long standby time, high precision and programmable output function. It's widely used in lab, PLC in industry site, process instrument, electronic valve and many other area's debugging.

FEATURES

- Sources and reads mA, mV, V, Ω, RTD and TC
- Keypad to enter output parameters directly
- Concurrent input / output, convenient to operate
- Sub display of sources and reads (mA, mV, V)
- Large 2-line LCD with backlight display
- 24 VDC loop power supply
- Thermocouple measurement / output with automatic or manual cold junction compensation
- Corresponds to various types of source pattern (Step sweep / Linear sweep / Manual step)

STANDARD SPECIFICATION

- Source
  - ACA50NB : VDC, mA, mV
  - : T/C (S, K, E, T, J, B, R, N)
  - : 24 VDC, 25 mA Max.
  - ACA50SB : VDC, mA, mV
  - : T/C (S, K, E, T, J, B, R, N)
  - : RTD (PT100)
  - : Resistance, 15-400 Ω
  - : 24 VDC, 25 mA Max.
- Read
  - ACA50NB : VDC, mA, mV
  - : T/C (S, K, E, T, J, B, R, N)
  - ACA50SB : VDC, mA, mV
  - : T/C (S, K, E, T, J, B, R, N)
  - : RTD (PT100)
  - : Resistance, 0-400 Ω
- Operating Temp. : -10~50 °C
- Ambient Humidity : 20-80% RH non-condensing
- Programmable Output : Setting Value / Time max. 4 segments
  - : Max. 40 segments from Min. -Max. -Min.
  - Cycle Time : 999 Time Maximum
- Display : 2.5" (4 * 39 Pixels), Backlight LCD
- Display Update Rate : 3 / Second
- Response Time : 80 ms
- Keyboard : 20 Silicone keyboard
- Battery Type : 4 * 1.5 VDC AAA (LR03)
- Battery Operation : 4-8 Hours
- Power Consumption : 1.2 W
- Overvoltage Protection : Max. 30 VDC
- +/-Reverse Protection : Max. 30 VDC
- Enclosure : IP54
- Dimension
  - Calibrator : 115 * 70 * 26 mm
  - : 4.53" * 2.76" * 1.02"
  - Carrying Case : 135 * 96 * 60 mm
  - : 5.31" * 3.78" * 2.36"
- Accessory Included : Carrying case
  - : Test leads (Black * 1,Yellow * 1,Red * 1)
  - : USB cable
- Weight : 0.3 kg

CE

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TECHNICAL SPECIFICATION

Source / Measurement					
Function	**Range**	**Load**	**Impedance**	**Resolution**	**Accuracy**
DCV(1	0-15.00 V	Min. 500 Ω	1.2 MΩ	0.01 V	±0.2% FS
DCmA	0-24.00 mA	Max. 750 Ω	100 Ω	0.01 mA	±0.2% FS
	4.00-20.00 mA	Max. 750 Ω	100 Ω	0.01 mA	±0.2% FS
DCmV	0-24.00 mV	Min. 300 Ω	1.2 MΩ	0.01 mV	±0.2% FS
	0-100.0 mV	Min. 300 Ω	1.2 MΩ	0.1 mV	±0.2% FS
R(2	0-400.0 Ω	**	**	0.1 Ω	±0.2% FS
RTD (PT100)	0-650.0 °C	**	**	0.1 °C	±0.2% FS
TC	K, T, E, J	**	1.2 MΩ	1 °C	±1.0% FS
	N, R, S, B	**	1.2 MΩ	1 °C	±1.0% FS
Built-in 24 VDC	24 VDC	Max. 24 mA		**	**

1) DCV: The measurable range is 0-30.00 V when in measurement.

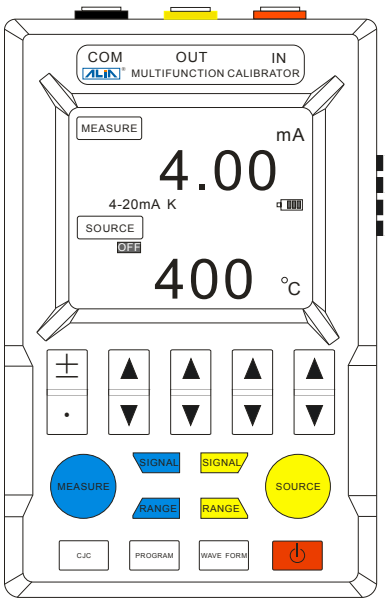
2) R: The range is 15-400.0 Ω when in output, it's used to simulate the corresponding resistance of RTD only.

TC / RTD Measurement and Source					
Sensor Type		**Display (°C)**	**mV / R**	**Measurement**	**Simulation**
				1 Year Uncertainty(3	**1 Year Uncertainty(3**
K	NiCr-Ni	0-1372	0.000-54.874	±0.35 °C	±0.35 °C
E	NICr-Con	0-1000	0.000-76.354	±0.25 °C	±0.25 °C
J	Fe-Con	0-1200	0.000-69.535	±0.3 °C	±0.3 °C
T	Cu-Con	0-400	0-20.872 mV	±0.25 °C	±0.25 °C
R	Pt13Rh-Pt	0-1768	0-21.101 mV	±0.8 °C	±0.8 °C
B	Pt30Rh-Pt6Rh	0-1820	0.000-13.814	±1.5 °C	±1.5 °C
S	Pt10Rh-Pt	0-1768	0.000-18.696	±0.85 °C	±0.85 °C
N	NiCrSi-NiSi	0-1300	0.000-47.513	±0.4 °C	±0.4 °C
RTD	PT100	0-650.0	100.00-329.64 Ω	0.2 °C	0.25 °C

TC Measurement and Source Reference Junction	
Range (°C)	**1 Year Uncertainty(3**
-10~50 °C	±0.28 °C

5): Uncertainty include reference uncertainty, hysteresis, non-linearity, repeatability and typical long-term stability for the mentioned period.

TECHNICAL SPECIFICATION



Support efficient operation with various types of source pattern