

GENERAL

ALIACA The ACA60 Series is mainly designed for the calibration and maintenance of on-site industrial thermodynamic instrument and their system. Its complete and practical functions are easily accessible. With latest extensive digital-converted integrative circuit and large-screen display, it is supplied with functions of output, measurement, ITS-90 query and 24 VDC power supply, making it convenient for you to check and calibrate sensor, transmitter, displayed instruments, and control system on spot.

FEATURES

- ❑ Large 2-line LCD with backlit display
- ❑ Sources and reads mA, mV, V, Ω , RTD and frequency
- ❑ Keypad to enter output parameters directly
- ❑ Simultaneous millivolt display when in temperature measurement mode
- ❑ Small, streamlined shape, easy to carry and hold
- ❑ Thermocouple measurement / output with automatic or manual cold junction compensation
- ❑ Quick query to resistance & temperature, and millivolt & temperature
- ❑ 24 VDC loop power supply
- ❑ Ni-MH battery available, continuous use for at least 6 hours
- ❑ Concurrent input / output, convenient to operate
- ❑ Temperature unit °C and °F available.

STANDARD SPECIFICATION

- | | | | |
|-----------------------|---------------------------------------|----------------------|--|
| ● Source | : VDC, mA, mV | ● Battery Type | : NiMH Pack, 1800 mAh, 7.2 VDC |
| | : T/C (S, K, E, T, J, B, R, N, W325) | ● Charger Supply | : 90-260 VAC 50/60 Hz |
| | : Frequency, 0-5000 Hz (4 VDC) | ● Power Consumption | : 2 W |
| | : Resistance, 10-510 Ω | ● Accessory Included | : Test leads two pairs |
| | : 24 VDC, 30 mA Max. | | : Power Adaptor (90-260 VAC, 50/60 Hz) |
| ● Read | : VDC, mA, mV | | : Reinforced aluminum carrying case |
| | : T/C (S, K, E, T, J, B, R, N, W325) | | : Shoulder straps for carrying case only |
| | : Frequency, 0-5000 Hz (24 VDC Max.) | ● Dimension | |
| | : RTD (PT100, Cu50) | Calibrator | : 231 * 104 * 45 mm |
| ● Response Time | : 80 ms | | : 9.1" * 4.1" * 1.8" |
| ● Operating Temp. | : -10~55 °C | Carrying Case | : 330 * 250 * 150 mm |
| ● Ambient Humidity | : 0-90% RH non-condensing | | : 13" * 9.8" * 6.0" |
| ● Display | : 2" (128 * 64 Pixels), Backlight LCD | ● Weight | : 0.7 kg |
| ● Display Update Rate | : 4 / Second | ● Enclosure | : IP54 |
| ● Keyboard | : 25 Silicone keyboard | | |
| ● Password Protection | : 4 Digits | | |
| ● Battery Operation | : 6-8 Hours | | |
| ● Charge Time | : 8-12 Hours | | |



TECHNICAL SPECIFICATION

Source				
Function	Range	Load	Resolution	Accuracy
DCV	0-5.000 V	Min. 350 W	1 mV	±0.05% FS
DCmA	0-24.000 mA	Max. 250 Ω	1 mA	±0.05% FS
DCmV	0-99.999 mV	Min. 100 W	1 mV	±0.05% FS
R ⁽¹⁾	10.0-510.0 Ω	**	0.1 Ω	±0.15% FS
TC	K, T, E, J, N	**	0.1 °C / 0.1 °F	±0.1% FS
	R, S, B, W325	**	0.1 °C / 0.1 °F	±0.2% FS
Hz	0-1000 Hz	Min. 350 W	1 Hz	±1 Hz
	0-5.00 kHz	Min. 350 W	0.01 kHz	±0.02% kHz
Built-in 24 VDC	24 VDC	Max. 30 mA	**	**

Measurement				
Function	Range	Impedance	Resolution	Accuracy
DCV	0-5.000 V	1.4 MΩ	1 mV	±0.1% FS
DCmA	0-24.000 mA	20.3 Ω	1 μA	±0.05% FS
DCmV	0-99.999 mV	1.4 MΩ	1 mV	±0.05% FS
RTD	PT100, CU50	**	0.1 °C / 0.1 °F	±0.1% FS
TC	K, T, E, J, N	1.4 MΩ	0.1 °C / 0.1 °F	±0.1% FS
	R, S, B, W325	1.4 MΩ	0.1 °C / 0.1 °F	±0.2% FS
F	0-5000.0 Hz	1.4 MΩ	0.1 Hz	±0.2% Hz

1): Resistance simulation need excitation current 0.6 mA

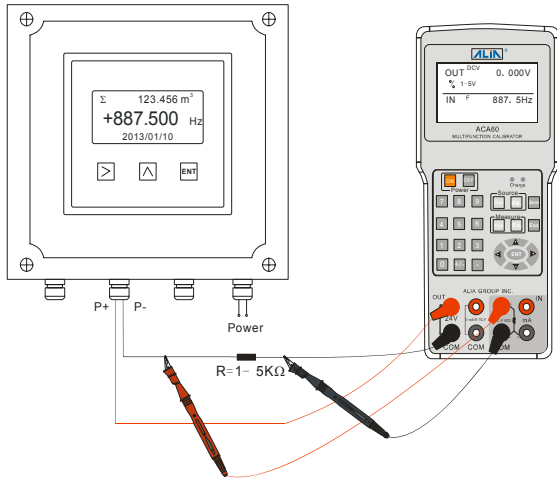
TC Measurement and Source					
Sensor Type		Display (°C)	mV	Measurement	Simulation
				1Year Uncertainty ⁽¹⁾	1Year Uncertainty ⁽¹⁾
K	NiCr-Ni	0000.0-1768.0	0.000-54.874	±0.35 °C	±0.35 °C
T	Cu-Con	000.0-320.0	0.000-16.029	±0.25 °C	±0.25 °C
E	NiCr-Con	0000.0-1000.0	0.000-76.354	±0.25 °C	±0.25 °C
J	Fe-Con	0000.0-1200.0	0.000-69.535	±0.3 °C	±0.3 °C
N	NiCrSi-NiSi	0000.0-1300.0	0.000-47.513	±0.4 °C	±0.4 °C
R	Pt13Rh-Pt	0000.0-1760.0	0.000-21.006	±0.8 °C	±0.8 °C
S	Pt10Rh-Pt	0000.0-1768.0	0.000-18.696	±0.85 °C	±0.85 °C
B	Pt30Rh-Pt6Rh	0000.0-1820.0	0.000-13.814	±1.5 °C	±1.5 °C
W325	WRe3-WRe25	0000.0-2300.0	0.000-39.353	±0.9 °C	±0.9 °C

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

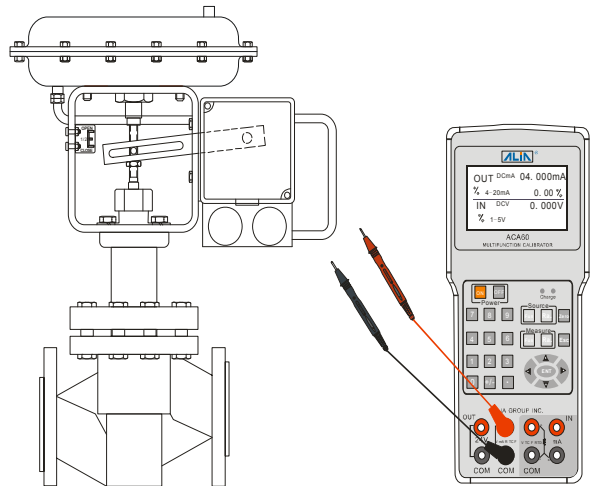
RTD Measurement and Simulation					
Sensor Type		Display (°C)	Ω	Measurement	Simulation
				1Year Uncertainty ⁽¹⁾	1Year Uncertainty ⁽¹⁾
PT100		-200.0~800.0 °C	18.52-375.7	0.2 °C	0.25 °C
Cu50		-50.00~150.00 °C	39.242-82.134	0.25 °C	0.9 °C

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

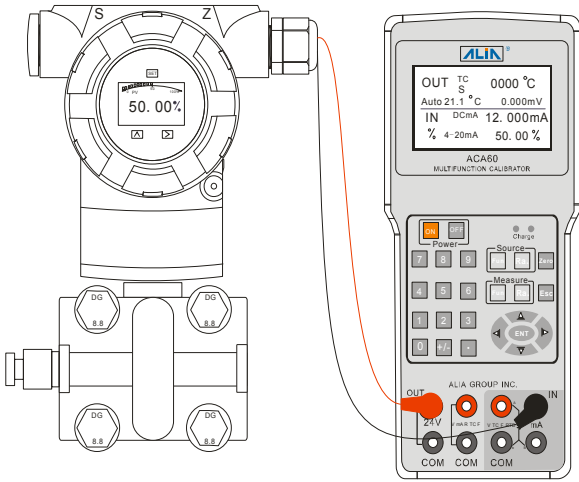
TYPICAL APPLICATIONS



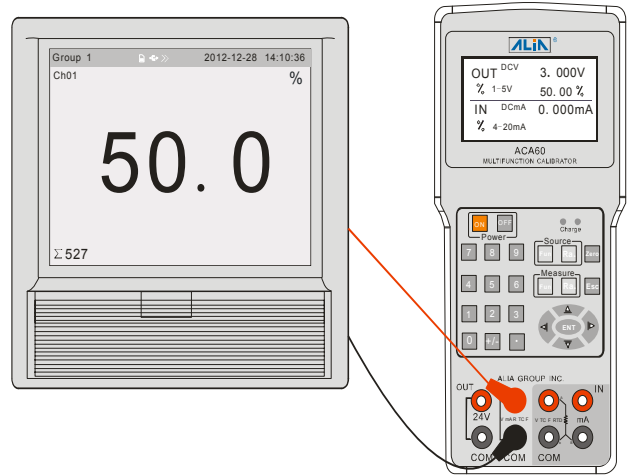
Frequency / Pulse measurement



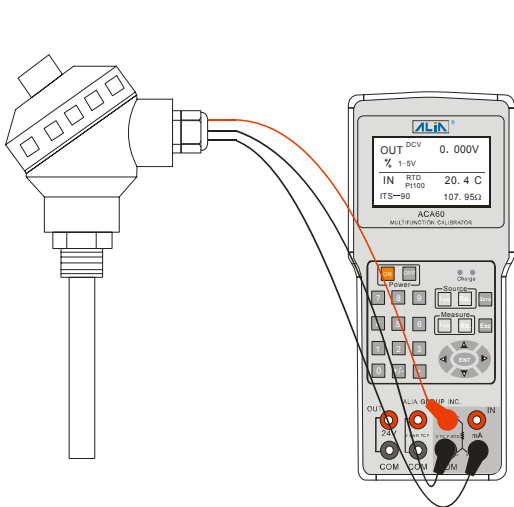
4-20 mA output of control valve simulation



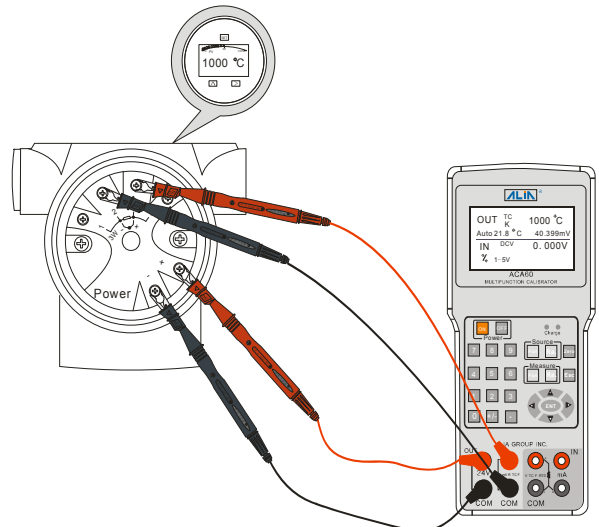
24 VDC power supply and 4-20 mA measurement



1-5 V / 4-20 mA simulation for recorder

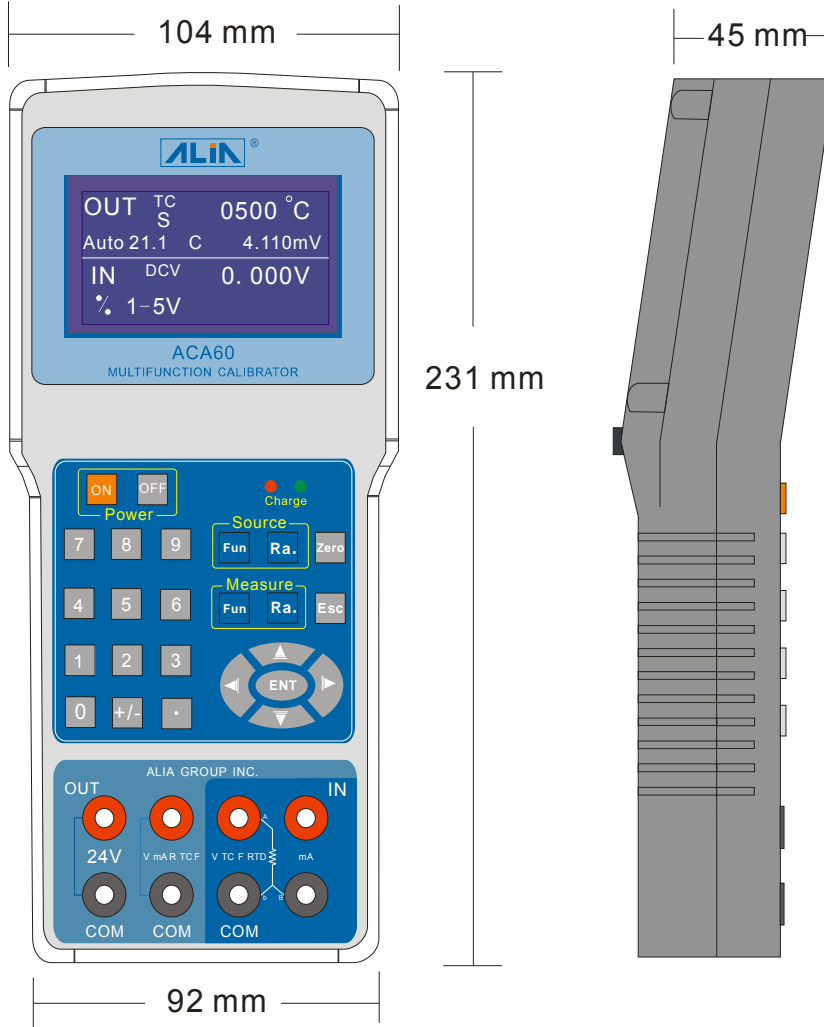


RTD-3W measurement



24 V power supply and T/C converter simulation

➤ DIMENSIONS



➤ ACCESSORIES

