

The Tekneka TCAL90 process calibrator (Volt/mA/TC) is utilized for measuring or outputting 0 ~ 24mA DC current loop, 0 ~ 20V DC voltage, and temperature via thermocouple (specific to model). It is suitable for industrial companies involved in the development and verification of measurement chains. Ensure precision and dependability in each measurement by using TCAL90 to enhance your calibration experience.

Features

- Large numerical digits with 3-inch LCD
- Easy to switch between V to mV, mA to mA% and TC types
- Delivers stable current and output voltage
- Customizable ladder/ramp output mode
- Easy shifting of units (°C/°F)
- Output voltage/current/temperature range can be adjustable
- Default auto power off is 30min
- Sub display zone for ambient temperature indication
- Designed for industrial purpose with greater durability



Applications

Tekneka TCAL90 is widely used by Instrument control technicians, calibration laboratories, industrial field service engineers, quality control professionals, maintenance technicians, and automation and control system engineers.

Technical Specifications

Voltage Range (I/O)	Resolution	Accuracy
100mV	0.01mV	± 0.06% + 4 dig.
20V	0.001V	± 0.08% + 5 dig.

Input impedance: 2MΩ (rated value), < 100pF
 Protection against over-voltage: 30V
 Current delivered by rated voltage: 1mA

Loop voltage supply: 24V ± 10%

Current Range (I/O)	Resolution	Accuracy
24mA	0.001mA	± 0.08% + 5 dig.

Protection against overloads: 125mA/250V quick-response fuse
 Display as percentage: 0% = 4mA, 100% = 20mA
 Source mode: 1,000Ω load at 20mA for battery voltage ≥ 6.8V, (700Ω at 20mA for a battery voltage between 5.8 and 6.8V)
 Simulation: external loop voltage condition: 24V (rated value), 30V maximum, 12V minimum

Thermocouple (I/O)	Temperature Range	Resolution	Accuracy
K (CA)	-200°C ~ 1372°C (-328°F ~ 2501.6°F)	0.1°C	±0.7°C
J (IC)	-200°C ~ 1200°C (-328°F ~ 2192°F)	0.1°C	±0.7°C
E (CRC)	-200°C ~ 1000°C (-328°F ~ 1832°F)	0.1°C	±0.7°C
T (CC)	-200°C ~ 400°C (-328°F ~ 752°F)	0.1°C	±0.7°C
N	-250°C ~ 1300°C (482°F ~ 2372°F)	0.1°C	±0.9°C
S (PR10)	-20°C ~ 1750°C (-4°F ~ 3182°F)	1°C	±2°C
R (PR13)	-20°C ~ 1750°C (-4°F ~ 3182°F)	1°C	±2°C
B (PR30)	600°C ~ 1800°C (1112°F ~ 3272°F)	1°C	±2°C

Temperature Coefficient: ± 0.02% on 0 ~ 18°C and 28 to 50°C

Reference Junction Error should add ± 0.3°C

General Specifications

Voltage Units	V/mV
Current Units	mA/mA%
Temperature Unit	°C/°F
Output Mode	Quick, Ladder and Ramp
Operating Temperature	0 ~ 50°C
Storage Temperature	-40 ~ 60°C
Power Supply	6 x 1.5V
Dimension	205 x 97 x 45mm
Weight	472g
Mains Power Supply (optional)	Input: 100V ~ 240V AC, 50 ~ 60Hz 1.8A Output: 12V DC, 2A Max

Packing Includes

- Test Leads
- Alligator Clip
- K-Type Thermocouple Sensor
- USB Cable
- 6 x AAA Batteries
- Calibration Certificate
- User Manual



Ordering Info

TCAL90..... Process Calibrator