

OVERVIEW

A highly integrated loop calibrator featuring several patented technologies, the ADT220 is an ultra-compact, rugged, and ease-to-use hand-held device for sourcing, simulating and measuring loop current, mV and V, checking loop integrity, and capture switches. Its smartphone-like menu and interface make the operation simpler and easier. The ADT220 is ideal for calibrating, maintaining, and troubleshooting various loop devices on site.



- Measuring and sourcing loop current, mV, and V
- Measuring and sourcing simultaneously
- Loop integrity check capability
- 24V loop supply with simultaneous current measurement

FEATURES

■ Measuring and sourcing loop current, mV and V

- ✓ Measures loop current up to 30mA with 0.1 μ A resolution
- ✓ Measures voltage signals up to 60 V, and mV signals up to 300 mV
- ✓ Sources loop current, mV and V
- ✓ 24V loop power supply with simultaneous current measurement
- ✓ Simultaneous dual reading capability
- ✓ Capture switch

■ Data statistics and analysis

- ✓ Display max, min, peak-to-peak, average, and percentage simultaneously
- ✓ Convert data to a real physical value through re-scaling function

■ Data logging

- ✓ High-capacity storage with up to twenty thousand records
- ✓ On-line view, index, analyze, auto-curve, and list the data

■ Various sources and converting mode

- ✓ Support linear, flow, valve, and 25% stepping source
- ✓ Auto-source of ramping and stepping
- ✓ Gauge span examination

■ "As Cal" on-site calibration tools

- ✓ Four on-site calibration tools preset: loop indicator, sensor/transmitter, signal isolator/converter, and limit alarm/switch

■ Support 2W transmitter connection

■ Multi lingual interface

English, Chinese

■ Easy to use

- ✓ Smartphone-like menu and interface make the operation simpler and easier
- ✓ Ultra-compact, size 3.9" x 7.6" x 2.0" (100mm x 192mm x 52mm), and weight 1.6 lb (0.7 kg)
- ✓ One hand operation

■ Snapshot

Save and manage up to 100 snapshots

■ Display

- ✓ 3.5 inch TFT color screen
- ✓ 4, 5, or 6 digits adjustable display

■ Rugged

Rugged design for harsh environments.
Passed a 1-meter drop test
Three year warranty for the ADT 220, and one year for the battery pack

■ Misuse protection and Electrical isolation

- ✓ Up to 30V voltage on any two sockets and up to 1A current on current sockets will not damage the calibrator. The calibrator will return to normal condition as soon as the voltage or current is removed.
- ✓ Measuring, sourcing and loop power circuits are electrically isolated each other.

■ Convenient tools

- ✓ Calculator, thermocouple converter, HOLD screen lock

■ Rechargeable battery

Rechargeable Li-Ion battery for 15 hours uninterrupted use. Battery life will be reduced when 24V is applied. The rechargeable battery is replaceable.

■ Firmware upgrade

Support firmware upgrade when available

APPLICATIONS

The ADT 220 loop calibrator is a process tool for measuring, sourcing and simulating mA, mV and V, captures switch values and provides 24 V loop power. It is a high performance solution for calibration, repair and maintenance of various loops devices, loop integrity check, and switch capture.

SPECIFICATIONS

Electrical Specifications

Measurement Accuracy			
	Range	Resolution	Accuracy
Voltage DC	-300.000 to 300.000 mV	1µV	0.01%RD+0.005%FS
	-60.0000 to 60.0000 V	0.1mV	0.01%RD+0.005%FS
Current DC	-30.0000 to 30.0000 mA	0.1µA	0.01%RD+0.005%FS
Loop integrity test	0 to 2000.0 ohm	0.1 Ω	0.02%RD+0.2 Ω
On/off	In case the switch comes with voltage, the voltage range: 3 to 24V		
Source Accuracy			
Voltage DC	-10.00 to 200.00 mV	0.01mV	0.02%RD+0.005%FS
	0 to 12.000 V	1mV	0.02%RD+0.005%FS
Current DC	0 to 22.000 mA	1µA	0.02%RD+0.005%FS
DC24V	N/A	N/A	0.5V

General Specifications

Environmental Specifications	
Operating Temperature	-10°C to 50°C
Storage Temperature	-20°C to 60°C
Humidity	<90%, non-condensing
Safety Specifications	
European Compliance	CE Mark
Mechanical Specifications	
Display	3.5 inch TFT color screen
Electrical Connection	φ4mm sockets and flat mini-jack thermocouple socket
RS232 Interface	standard RS232-DB9 socket
Size	3.9" x 7.6" x 2.0" (100mm x 192mm x 52mm)
Weight	1.6 lb (0.7 kg)
Power Supply	Polymer Li-ion rechargeable battery, or 10V DC adaptor
Battery	Rechargeable Li-ion battery (included)
Battery Life	15 hours uninterrupted use Battery life will be reduced when 24V is applied
Battery Charge	110V/220V external power adapter (included)

ORDERING INFORMATION

■ Model Number

ADT 220

Accessories (included)		
110V/220V external power adapter	1 pc	
Chargeable Li-ion battery	1 pc	
Test leads	2 sets (4 pcs)	
short circuit cable	1 sets (2 pcs)	

Optional Accessories		
Model number	Description	Picture
9050	USB to RS232 (DB-9 Male) Adapter	
9712	Spare chargeable Li-ion battery for multifunction calibrator	
9816	110V/220V external power adapter for multifunction calibrator	
9906	Carrying case for multifunction calibrator	
9121-220	NIST traceable calibration for ADT 220 series multi-function calibrators	