

ADT 220

Multifunction Loop Calibrator



OVERVIEW

The ADT220 is a highly integrated loop calibrator that features several patented technologies. The calibrator is ultra-compact, rugged, and best of all, easy to use. It is a true hand held device that will source, simulate and measure loop current, mV/V, loop integrity and also perform switch testing. Its smart phone like menu make it simple and easy to use. The ADT220 is ideal for calibrating, maintaining, and troubleshooting various loop devices in the field.



- Measure and source loop current, mV, and V
- Measure and source simultaneously
- Loop integrity check capability
- 24V loop supply with simultaneous current measurement
- 3 year warranty

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, Simplified Chinese
- **Convenient tools**
 - ✓ Calculator, thermocouple converter, HOLD screen lock
- **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.
- **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.
- **NIST Traceable Calibration with data**
- **Firmware upgrade**
Support firmware upgrade when available
- **Warranty: 3 years**

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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) |  |
| Manual | 1 pc | |
| NIST traceable calibration certificate | 1 pc | |

* Additel/Land software could be downloaded for free at www.additel.com

| 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 | |