

Additel 209 and 210 Series Loop Calibrator

- Accuracy to 0.01% of reading
- Small and rugged handheld design
- Measure, source, or simulate loop current
- Measure DC volts
- Simultaneously mA and % span display
- Switch functionality
- Selectable ramp and step functions
- Easy to read display and user interface
- HART 250Ω resistor in series with 24V loop



OVERVIEW

The new Additel 209 and 210 loop calibrator series combine ease of use and functionality, making them the ideal tools to troubleshoot your process loop. The ADT209 has an accuracy of 0.03% of reading whereas the ADT210 holds an accuracy of 0.01% of reading. If you want to source, simulate or simply measure, the Additel Loop calibrator series will fit your need. The ADT209 and ADT210 allow for measurement of current, voltage and a switch. You can also simulate or source mA or a process transmitter. With a push of a button, you can switch to zero and span values, auto ramp, and auto step throughout the range. Each loop calibrator has a large, easy to read screen which simultaneously displays the measurement with the % of span.

ELECTRICAL MEASURE SPECIFICATIONS

	Range	Resolution	ADT209 Accuracy ^[3]	ADT210 Accuracy ^[3]
Voltage DC ^[1]	0 to 30 V	1 mV	0.03%RD + 2mV	0.01%RD + 2mV
Current DC ^[2]	0 to 24 mA	1 μA	0.03%RD + 2μA	0.01%RD + 2μA
Switch test	Input resistance more than 500 MΩ Trigger level: low level <0.3V; high level: >2V			

[1] 1MΩ input resistance.

[2] Loop transmitter current measure: 700Ω maximum.

[3] Accuracy is valid for one year after calibration. The temperature range for ensuring accuracy is 10 to 30 °C .

The temperature coefficient of accuracy within the temperature range of -10 °C to 10 °C and 30 °C to 50 °C is ±0.005%FS/°C .

ELECTRICAL SOURCE SPECIFICATIONS

	Range	Resolution	ADT209 Accuracy ^[1]	ADT210 Accuracy ^[1]
Current DC	0 to 24 mA	1 μA	0.03%RD + 2 μA	0.01%RD + 2 μA
Source mode	700Ω/20 mA maximum			
Sink mode	External loop voltage nominal 24 V, maximum 30 V, minimum 12 V			

[1] Accuracy is valid for one year after calibration. The temperature range for ensuring accuracy is 10 to 30 °C .

The temperature coefficient of accuracy within the temperature range of -10 °C to 10 °C and 30 °C to 50 °C is ±0.005%FS/°C .

GENERAL SPECIFICATIONS

Voltage limit	30 V between terminals or between terminals and ground
Measurement Functions	Auto step, auto ramp, span step
Display	VA LCD display. 2.04 x 2.04 in (52 x 52 mm)
Loop power	24 V
Over-voltage protection	30 V DC (240 V AC)
Overload current protection	33 mA DC
Storage temperature	-20°C to 70°C
Working Environment	-10 to 50°C, 95%RH
Working Altitude	<3,000 m
Vibration/shock	Random 2G 5 to 500 Hz 1 meter drop
Power	One 9 V alkaline battery (ANSI/NEDA 1604A or IEC) DC9 V optional adapter available
Battery life (typical)	Output mode: 18 hours (12 mA/500Ω) Measure mode: 50 hours
Size (LxWxH)	163 x 83 x 41 mm
Weight	350 g
Calibration Certification	ISO 17025 Accredited Calibration with data
Compliance Certification	ADT209: CE ADT210: CE
Warranty	3 years

ORDERING INFORMATION

Model Number

ADT209

ADT210

Accessories included

9024	Test lead set	1 set
	Alligator clips	2 pcs
	9V Alkaline battery	1 pc

Optional Accessories

9812	110V/220V external power adapter (DC 9V)
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