

Loop Simulator Professional



Analog Input Tester
4-20 mA 2-Wire Device Simulator
4-20 mA Loop Current Source
0-10 Volt Source
WWW.PLCTOOLS.COM
Product of USA

The **Loop Simulator Professional** was developed to assist maintenance personnel and integrators in analog input testing, troubleshooting and application development.

This 3-in-1 device simulates a 2-wire loop powered transmitter, provides 4 - 20mA current source, and 0 - 10V voltage source.

A specific output selected via on-screen menus.

Warning: Selecting Current Source or Voltage Mode with an externally powered loop will damage simulator.

In **Current 2-Wire** and **Source Modes** 17 pre-set output settings are available with 1mA increments and individual correction.

Voltage Source Mode has 11 preset values with 1V increments and individual correction.

Each output point can be corrected by user using **Calibration Mode**. To enter **Calibration Mode** Press **OK** after selecting output value.

While in **Calibration Mode** the specific output can be corrected using up and down keys.

OK will save new values, **Cancel** will revert to the original settings. To revert to Factory setting, hold **OK** while powering the device and follow on-screen instructions.

Power ON: Press and release **Cancel** button.
Power OFF: Press and hold **Cancel** button for 5 seconds until "**Shutting Down**" message appears.

Device options include:

- Adjustable Sleep timer with Disable Option
- Adjustable Screen Dim timer
- Adjustable Screen Brightness

Important:

A typical **Current 2-Wire** installation requires a loop power supply usually provided by an external 24VDC power supply.

Some sourcing Analog Input modules can provide loop power also.

Follow the Analog Input Module specification for a power supply selection.

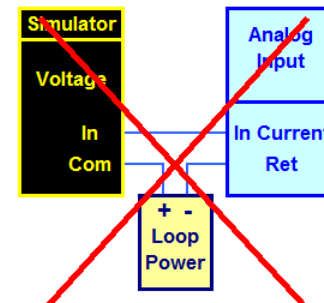
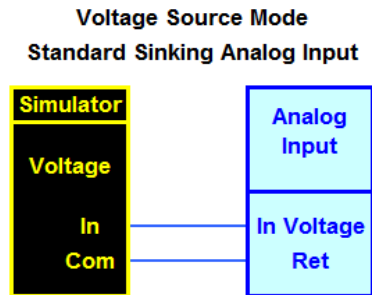
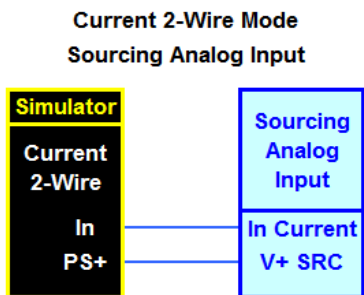
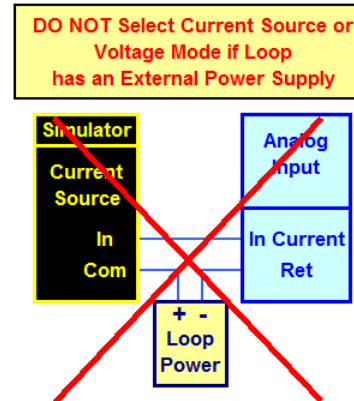
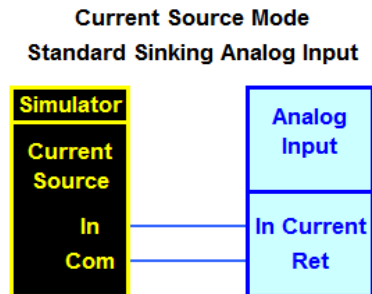
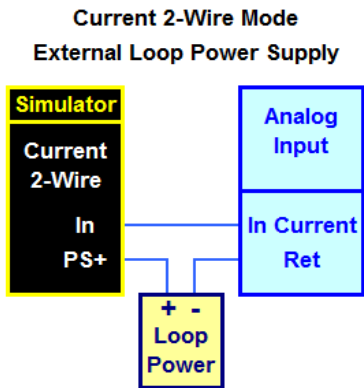
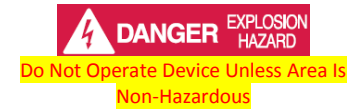
In **Current Source** mode, Loop Simulator will provide the loop power and voltage signal source using internal boost converter powered by 2 AA Alkaline or rechargeable Ni-MH batteries.

Important:

Do not use this device for an input module or instrument **calibration**. This device is a simple tester that provides current or voltage signal within a selected range.

SPECIFICATION

Functionality	4-20 mA 2-Wire Device 4-20 mA Current Source 0-10 V Voltage Source
Power Supply	Battery 2xAA Ni-MH or Alkaline 12-30V DC External Power
2-Wire Current	
Current Output	
Output Range	4mA to 20mA
Fixed Steps	1mA increments
Output Accuracy	±1% of full scale
Load Range	0-500 Ohm
Voltage Output	
Output Range	0V to 10V
Fixed Steps	1V increments
Output Accuracy	±1% of full scale
Minimum Load	20kOhm
Protection	Reverse Polarity, Over-current, Open Wire, Excessive Loop Voltage



DISCLAIMER

This device is intended to provide general assistance with current loop debugging, testing and application development. It should not be permanently used in live production systems. Accordingly, production system must be tested and commissioned with real instruments to ensure safe and reliable operation.

IN NO EVENT SHALL THE DEVICE MANUFACTURER BE LIABLE FOR ANY DAMAGES OF ANY KIND INCLUDING DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, LOSS OF PROFIT OR DAMAGE.

The examples and diagrams in this manual are included for illustrative purposes only. Because of the many variables and requirements associated with any particular installation, the device manufacturer cannot assume responsibility or liability for actual use based on the examples and diagrams.

Before making any decision or taking any action that might affect your equipment, you should consult a qualified professional advisor.