4- to 20mA Current Loop Simulator

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Product of USA

The C**urrent Loop Simulator** was developed to assist maintenance personnel and integrators in 4–20 mA analog input testing, troubleshooting and application development.

It simulates a 2-wire loop powered transmitter.

Five fixed output settings are available: **4 mA, 8 mA, 12 mA, 16 mA or 20 mA.**

A specific output selection made by connecting signal wire to one of the five output terminals

It is not recommended to connect more than one output at the same time. If this happened, maximum current limited to 24mA.

Simulator can work with wide range of loads from 0 to 1000 Ohm, typical analog input impedance is 250 Ohm. Loads above 500 Ohm require 24V or higher loop power supply

A typical 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

SPECIFICATION

Device Simulation	Two-Wire Loop Powered Device
Power Supply	12-30V DC 24VDC typical
Current Output	
Output Range	4mA to 20mA
Fixed Preset	4 , 8, 12, 16, 20 mA
Output Selection	Terminal
Output Accuracy	±1% of full scale or ±0.20mA
Protection	Reverse Polarity
Load Range	0-1000 Ohm 250 Ohm typical

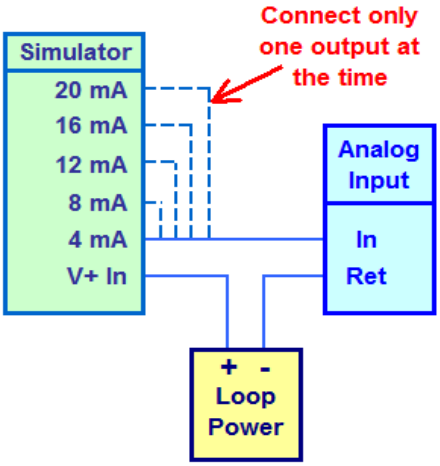
Loads over 500 Ohm require 24V or higher power supply

Currently the device does not carry any agency approvals and is not compliant with RoHS.

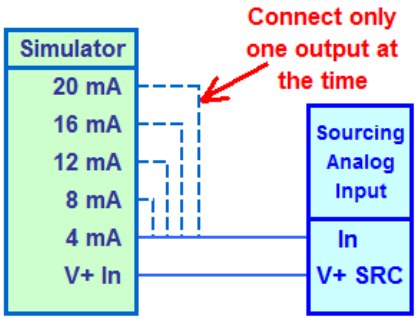
DANGER EXPLOSION HAZARD

Do Not Operate Device Unless Area Is Non-Hazardous

Typical Simulator Connection with an External Loop Power Supply



Typical Simulator Connection with a Sourcing Analog Input



Important:

Do not use this device for an input module or instrument calibration.

This device is a simple tester that provides current signal within a selected range.

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.