ProMax CSG01 4-20ma Current Signal Generator

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This 4-20mA signal generator is a precision adjustable panel-mounted 4-20mA current loop simulator or signal generator with an LCD display.

High Quality Professional Signal Generator from ProMax is designed for Industrial Applications. This High Precision Adjustable Current Simulator is a commonly used test equipment for electrical engineering and technical personnel during the installation, debugging, overhaul, and maintenance of electrical equipment on site. It can generate 4 to 20mA Current Signals set by a knob.

It also supports generation of Automatic Programmable Time Varying curve outputs. It can be used to generate preset time v/s current signal curves to simulate dynamic signals.

This generator comes with panel mounting, high accuray knobs and requires simple loop wiring.

Features

- Generates User Adjustable 4 to 20mA Current Signal
- Automatic Mode available to output preset time varying current curves
- Can be used to simulate signals from industrial sensors & eqipments
- LCD display with backlight
- Uses accurate digital rotary encoder.
- With reverse polarity protection.
- High precision and linearity
- User Selectable Fine & Coarse Settings available
- Output can be calibrated by the users
- 3 to 21ma output available. 3mA and 21mA Signals can be used to simulate Fault and Out of Range signals

Applications

- Simulating signals of industrial sensor transmitters
- Signal Generators, Valve Adjustment, Inverter control
- PLC & Control Panel debugging by bypassing sensors
- LED & Equipment Testing or Control

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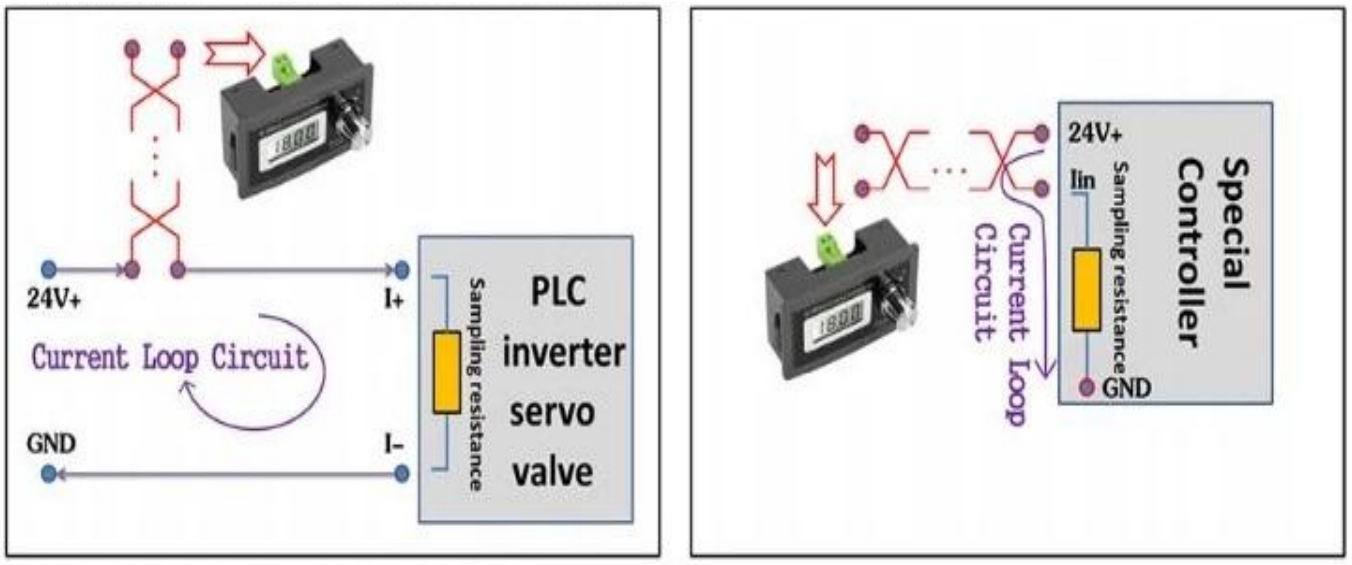
1. Technical Specifications

Parameter	Specifications
Output Current Range:	4-20mA
Current output Accuracy	0.05 mA
Current Sampling resistance	Less than 500 ohms
Operating power supply	12v-24V DC Power Supply
Display mode	Actual Generated Current / 0-100.0% / 0-50.0Hz
Display Resolution	0.01 mA
Output accuracy	±0.5%
Operating temperature	-20 to +50 degree Celsius
Shell material	ABS
Dimension	LxWxH: 79.5x42.2x24mm
Install panel /Panel cut-out size	77x40mm

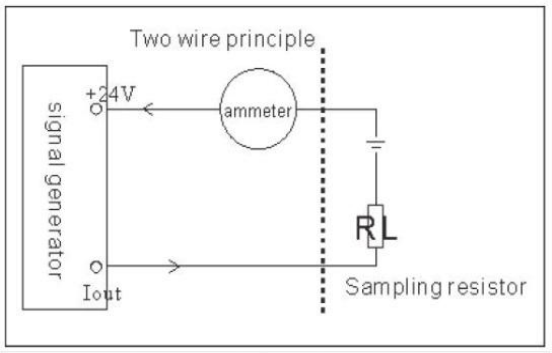
2. Current signal generator Physical Dimensions

3. Pinout

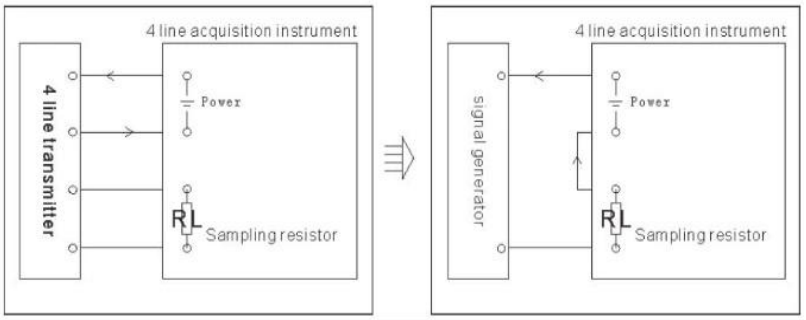
Connection is simple and easy. Use Loop wiring. Polarity is not important.



Wiring Diagram - Signal Generator to PLC



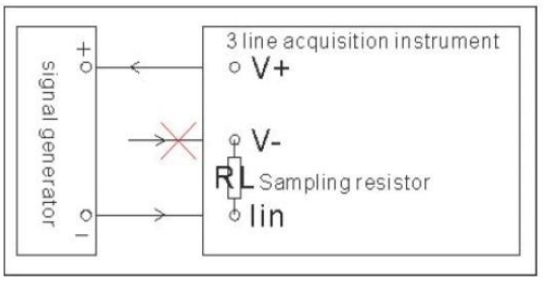
4-20mA Loop Simulator Typical Connection



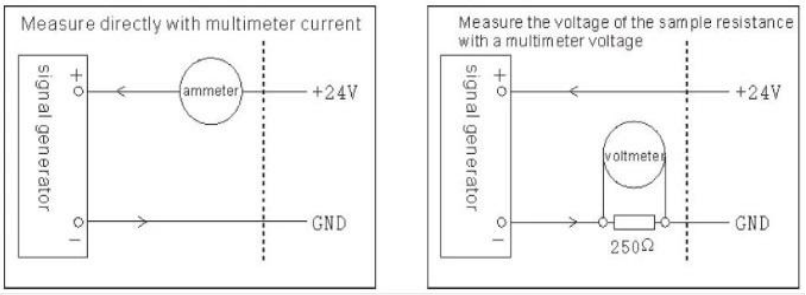
4-20mA Simulator 4-wire Application

3-wire 4-20mA Calibration Wiring Circuit

4-20mA Current Signal Measurement



4-20mA Loop Simulator 3 Wire Application



4-20mA Loop Simulator Measurement

Using the Signal Generator with different equipments.

4. Parameters Programming Instructions

The signal generator can operate in two modes manual and automatic. In manual mode, the output current is controlled by the user through the knob. The current at the output is displayed on the LCD. In automatic programmable mode, the generator outputs fixed preset time v/s current signal curves on the output. The two modes and other settings can be accessed using the following procedure

Note: Rotate Knob Clockwise for one step is "+"

Rotate Knob Counter-Clockwise for one step is "-"

Press the knob to "Confirm"

To Enter Progamming Section

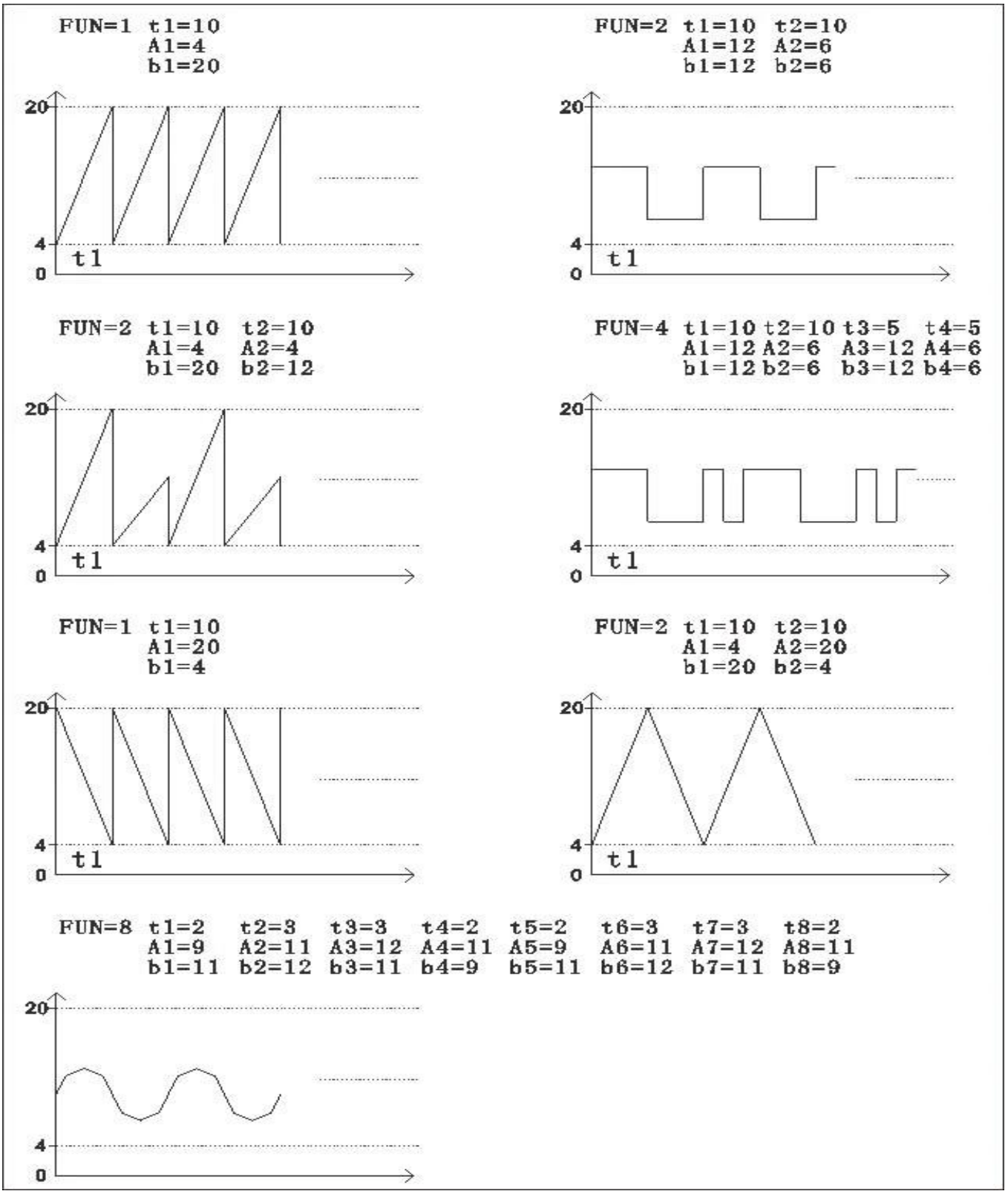
Press and hold the knob for 2 seconds to enter the parameter settings

To change between coase and fine tuning -

- Enter programming section
- Under Display parameter number "F001", press "Confirm "
- Set the value of parameter "F001", = 0 for coarse tuning, or 1 for Fine tuning.
- Then press "Confirm" to save its value

5. 4-20mA Generator Curves Output

You can use the signal generator to generate these curves. The time period and peak current values can be changed by changing the parameters on the generator.



6. Tutorial Guide

Please refer the following tutorials for more details

https://tutorials.probots.co.in/4-20ma-signal-generator-part-1/

https://tutorials.probots.co.in/4-20ma-signal-generator-part-2/

7. Signal Generator Overview

Read and understand this section before using the product

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