

Description

A precision module primarily used for the calibration and simulation of voltage and current loops. The 7067 is a high accuracy calibrator incorporating source and measure capabilities. With user friendly controls and simple operation the 7067 is an excellent module for both process engineers and calibration technicians.

The three operating modes provide a fast and easy solution to process applications; Loop current/voltage source for simulating a transmitter and the loop supply, sink of loop current for simulating a transmitter, and measurement of loop current/voltage for simulating a loop indicator.

Manual step of the output is possible at five calibration points; 0 %, 25 %, 50 %, 75 % and 100 % of span. Automatic stepping of the output is also available, both up and down with programmable dwell times.

Continuous up/down ramping can also be performed, with user programmable ramp rates and dwell time (top and bottom).

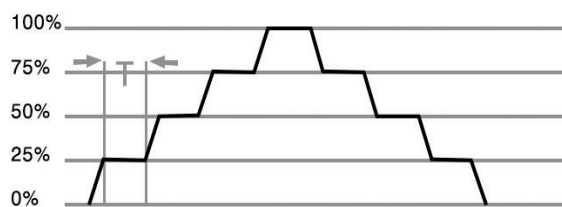
In source mode the range can be user programmed to any value between 0 mA and 50 mA, or 0V and 21 V. For example a low point of 10mA and a high point of 50 mA could be set giving a span of 40 mA.

Measure mode provides both voltage and current measuring capability with 5 digit resolution. Ranges are 0 to ± 5 V and ± 5 to ± 25 V, 0 to ± 25 mA and ± 25 to ± 125 mA.

Alternatively the signal can be measured as a % of span for the following ranges; 4 to 20 mA, 0 to 20 mA, square root 4 to 20 mA, or square root 0 to 20 mA. For all measurements a Min/Max recording function is available on demand.

Features

- Current measure: 125 mA, source: 50 mA
- Voltage measure: 25 V, source: 21 V
- Loop Current Sink
- Resolution 1 μ A or 1 mV
- Accuracy 0.01 %
- Transmitter and square root functions
- Auto-ranging feature
- Programmable steps and ramp





Technical Specifications

DC Voltage source

Range	Resolution	Accuracy	Output current	Output resistance
0 to 21 V	1 mV	± 0.01 % of setting ± 4 mV	50 mA	< 1 Ω

DC Voltage measure (0 to ± 25 V, Auto-ranging)

Range	Resolution	Accuracy	Measure load
0 to 5 V	0.1 mV	± 0.01 % of reading ± 0.4 mV	10 MΩ
5 to 25 V	1 mV	± 0.01 % of reading ± 2 mV	10 MΩ

DC Current source

Range	Resolution	Accuracy	Output voltage	Loop resistance
0 to 50 mA	1 μA	± 0.01 % of setting ± 2 μA	22 V Max	1100 Ω @ 20 mA max

DC Current measure (0 to ± 125 mA, auto-ranging)

Range	Resolution	Accuracy	Input load
0 to 25 mA	1 μA	± 0.01 % of reading ± 2 μA	24.5 Ω
25 to 125 mA	10 μA	± 0.01 % of reading ± 20 μA	24.5 Ω

DC Current source

Range	Resolution	Accuracy	Min external drive	Max external drive
0 to 50 mA	1 μA	± 0.01 % of setting ± 2 μA	4 V	40 V

Summary of Functions

Source Mode

- User programmable ranges - any values between 0 and 50 mA or 0 and 21 V.
- Fixed ranges are available: 4 to 20 mA, 0 to 20 mA, sqrt 4 to 20 mA, sqrt 0 to 20 mA.
- Fine adjustment (inching) is available for precise deviation from the calibration point.
- Manual step output - five calibration points 0 %, 25 %, 50 %, 75 %, and 100 %.
- Automatic step output (up/down) - five cal points with programmable dwell period.
- Ramp output - programmable ramp rate (0 to 20 mA/sec or 0 to 20 V/sec). Programmable dwell period (0 to 1000 seconds).

Measure Mode

- Voltage and current measuring capability with 5 digit resolution.
- Ranges: 0 to ± 5 V and ± 5 to ± 25 V, 0 to ± 25 mA and ± 25 to ± 125 mA.
- Signal can also be measured as a % of span on ranges: 4 to 20 mA, 0 to 20 mA, square root 4 to 20 mA, square root 0 to 20 mA.
- For all measurements a Min/Max recording function is available on demand.

General Specifications

Module dimensions.....H 201 x W 97 mm (primary or secondary console fitting)

Operating temperature-10 to 50 °C. Storage temperature -30 to 70 °C.

Operating humidity.....0 to 90 % non-condensing at 25 °C.

Power.....As per CalBench supplied.

Optional extrasCalibration certificates: Traceable (Factory) and Accredited (ISO 17025).

Country of origin.....UK.

Ordering Information

7067..... Loop Calibrator Module

C184.....Traceable calibration certificate (Factory)

C195.....Accredited calibration certificate (ISO 17025)

Due to continuous development Time Electronics reserves the right to change specifications without prior notice.