



1077 Milliamp Transducer/Simulator

Time Electronics

Calibration, Test & Measurement

- 3 Operating modes
- 100mA Source & Load
- 24V Line mode
- 0.02% Accuracy
- Safety terminals
- Removable protective boot
- Battery level indicator



The **1077** is a hand held instrument designed for the testing and simulation of milliamp transducer system. Its rugged and compact construction makes it ideal for use in the field or laboratory.

Three operating modes are possible -

- 1) As an **adjustable current load** (simulating the transducer) on the line, the 1077 will draw up to 100mA from the line. The required current is set by the front panel controls.
- 2) As an **adjustable power supply** (14V to 40V) with accurate measurement and display of the current drawn from the circuit.
- 3) As a **precision current source** with 14V to 40V max. (adjustable) drive capacity. The 1077 will source the set current up to 100mA to the loop.

Safety Terminals: Fully compatible with 4mm shrouded plugs, as well as standard plugs, bare wires, and spade terminals.

Added Protection: The 1077 comes fitted with an ergonomic rubber boot (9028) providing increased protection and durability. The boot has a textured grip for comfortable handling and openings at the top and bottom to allow access to the battery meter and a position to place labels if required. The boot is easy to remove if the user prefers a stand-alone unit or to house the 1077 in the 9027 carry case.

The versatile capabilities make the 1077 ideal for process control engineers. It is supplied with rechargeable batteries, mains charger, and protective boot as standard.

1077 Technical Specifications

CURRENT LOAD (TRANSDUCER SIMULATION)

Output:	0 to 100mA in 3 ranges: 0 – 99.99mA in 10 μ A steps 0 – 9.999mA in 1 μ A steps 0 – 999.9 μ A in 0.1 μ A steps
Accuracy:	\pm 0.02% of setting; \pm 0.02% of range; \pm 0.02 μ A
Output Stability:	Better than 60 ppm per $^{\circ}$ C. Better than 25 ppm per hour at constant temp.
Input Voltage:	30V maximum, 3V minimum
Voltage Limit Warning:	A front panel indicator provides indication of insufficient terminal voltage.

24 VOLT LINE SIMULATION

24 V Line Simulation:	Adjustable 14V to 40V, 100mA current limit, Maximum output power 2.4 W.
Display:	A 3.5 digit (1999 max) LCD display indicating line current.
Measure Range:	0 – 20mA
Resolution:	10 μ A
Accuracy:	0.2% of reading + 1 count

CURRENT SOURCE

Output:	0 to 100mA in 3 ranges – 0 – 99.99mA in 10 μ A steps 0 – 9.999mA in 1 μ A steps 0 – 999.9 μ A in 0.1 μ A steps
Accuracy:	\pm 0.05% of setting, \pm 0.02% of range
Output Stability:	Better than 60 ppm per $^{\circ}$ C. Better than 25 ppm per hour at constant temp.
Output Noise:	Less than 15 ppm of full scale
Voltage Capability:	Adjustable 14V – 40V
Output Power:	2.4 watts maximum
Output Limit Warning:	A front panel indicator provides indication of insufficient drive voltage.
Power Supply:	NiCad rechargeable batteries with external mains recharger. Recharge time approximately 10 hours. Operating time typically 10 hours.

General Specification

Dimensions:	200 x 75 x 110mm (215 x 100 x 120mm including protective boot)
Weight:	1.1kg (1.5kg including protective boot)
Supplied with:	Protective boot, NiCad cells and 240V AC mains charger. Customer must specify when ordering if 110V–120V AC charger is required.
Optional Extras:	Carry Case Calibration Certificates – traceable to NPL and UKAS

Ordering Information

Code	Description
1077	Transim (Milliamp Transducer/Line Simulator)
9027	Leatherette Carry Case
9158	Factory (NPL Traceable) Calibration Certificate
9108	UKAS Calibration Certificate (ISO 17025)

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

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