1077
Milliamp Transducer/Simulator

- **3 Operating modes**
- **100mA Source & Load**
- **24V Line mode**
- **0.05% Accuracy**
- **Portable**
- **Rechargeable cells**

Introduction

The 1077 is a portable, hand held instrument designed for the testing and simulation of milliamp transducer system. 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.

With facilities like these, the 1077 is ideal for process control engineers.

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Specifications

CURRENT LOAD (TRANSDUCER SIMULATION)

Output	0 to 100 millamps in 3 ranges - 1) 0 – 99.99mA in 10µA steps 2) 0 – 9.999mA in 1µA steps 3) 0 – 999.9µA in 0.1µA steps
Accuracy	± 0.05% of setting, ± 0.02% of range
Output Stability	Better than 60 ppm per ºC. Better than 25 ppm per hour at constant temperature.
Input Voltage	30V maximum, 3V minimum
Voltage Limit Warning	A front panel indicator provides indication of insufficient terminal voltage.

24 V 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 – 20 mA
Resolution	10 µA
Accuracy	0.2% of reading + 1 count

CURRENT SOURCE

Output	0 to 100 mA in 3 ranges – 1) 0 – 99.99mA in 10µA steps 2) 0 – 9.999mA in 1µA steps 3) 0 – 999.9µA in 0.1µA steps
Accuracy	± 0.05% of setting, ± 0.02% of range
Output Stability	Better than 60 ppm per ºC. Better than 25 ppm per hour at constant temperature.
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	Ni-Cad rechargeable batteries with external mains recharger. Recharge time approximately 10 hours. Operating time typically 10 hours.

General Information

Dimensions	110 x 75 x 200 mm
Weight	1.5 kg
Optional Extras	Calibration Certificates

The 1077 is supplied with carrying case, Ni-Cad cells and 240V A.C. mains charger. Please specify when ordering if 110V – 120V A.C. charger is required.

Ordering Information

Description	Order Code
Transim (Milliamp Transducer/Line Simulator	**1077**
N.P.L. Traceable Calibration Certificate	**9158**
UKAS Calibration Certificate	**9108**