



## 5 W Programmable Load

# Features

SMP7600 5 W Programmable Load

Ideal for Unit Under Test Loading or Simulation

5 W High-density Programmable Load Module

Wide Resistance Range from 0.5  $\Omega$  to 1.5 M $\Omega$

0.1  $\Omega$  Step Size

Over-voltage, Over-current, and Over-temperature Sensing

External Voltage and Current Sense Outputs

Fail-safe Interrupt Input on Front Panels for Emergency Fault Conditions

VXI *plug&play* Drivers

## Overview

The SMP7600 is a single channel programmable precision load. It is designed for applications such as RTD or other sensor simulation, process control, ATE calibration, and device under test loading.

The SMP7600 contains internal, high-precision 5 W power resistors that are switched in and out via mechanical relays. It is capable of producing any resistance value between 0.5  $\Omega$  to 1,500,000  $\Omega$  and can be adjusted in 0.1  $\Omega$  increments via external commands. It is designed for terminal voltages from 0 to 200 V dc and for currents up to 0.5 amps.

## Fault Sensing

After power up, reset or a fault condition, all relays on this module are open, removing the load from the device under test. A fault condition is the result of exceeding the maximum current, maximum voltage or maximum temperature for this module. Additionally, a voltage sense out signal provides an indication of the voltage across the programmed resistance, and a current sense out signal provides an indication of the current across the programmed resistance. The VM2710 A (DMM) can then be used to monitor these signals and open all relays if a set voltage or current is exceeded, hence protecting the device under test.

## Specifications

<b>Resistance:</b>	0.5 $\Omega$ to 1,500,000 $\Omega$
<b>Resolution:</b>	0.1 $\Omega$ step size
<b>Accuracy:</b>	0.5 – 60.0 $\Omega$ $\pm 0.15 \Omega$ 60.1 – 1,499,999 $\Omega$ $\pm 0.25\%$ of Programmed Value
<b>Maximum Voltage:</b>	200 V ac
<b>Maximum Current</b>	0.5 A
<b>Maximum Power</b>	5 W
<b>Voltage Output Range/Gain</b>	40:1 $\pm 1\%$ Full-scale
<b>Current Output Range/Gain</b>	100:1 $\pm 1\%$ Full-scale
<b>User Connector:</b>	Standard 15-pin female D-Sub connector
<b>Clocked Input Data Setup:</b>	2 $\mu$ s
<b>Clocked Input Data Hold:</b>	80 ns