

# TL5 Intelligent Test Load



**A complete, scalable solution for research, development or quality control testing.**

**TL5 Intelligent TEST LOAD for fuel cells and batteries** is an electronic load with microprocessor intelligence. Two models, the TL5-20 and TL5-40 are available working in the 0-20.00A and 0-40.00A ranges respectively. Both models have the ability to briefly interrupt current and measure resistance free cell potential following a selectable delay. There are additional inputs for reference electrode and temperature sensor. Further expansion via the I/O connector provides an additional eight digital inputs, eight digital outputs and two analog inputs. The onboard microprocessor controls time keeping, data acquisition functions, and readings are displayed on a multifunction 80-character LCD display. Two operator selectable current ranges of 0 - 2.000 A and 0 - 20.00 A (or 0 - 4.000 A and 0 - 40.000 A), depending on the model. The voltage up to 20.00 V is auto ranging.



**Connect up to 16  
TL5 Test Loads!**

**Purchase the TLIF Interface Module and TESTMASTER™ Software** and connect 16 TL5 Intelligent units to operate in a daisy-chain configuration per available RS-485 port on host PC. Functionality added in this configuration includes centralized remote control and optional lockout for test loads, real-time data viewing in graphical format, complete data acquisition and data management with the ability to easily export all data.

## Specifications

**TL5-20** Current ranges  
0 - 2.000 A  
0 - 20.00 A

**TL5-40** Current ranges  
0 - 4.000 A  
0 - 40.00 A

Voltage compliance range  
0.5 - 20 V

Maximum power dissipation  
100 W (internally limited)

Resistance free voltage sampling time delay  
0.1, 1 or 10 ms

Clock range  
0 - 255:59:59 hrs.  
with start/stop/clear

Inputs  
+ - power  
+sense, -sense, reference  
electrode temperature,  
-40 to 125°C (Type T sensor)

Display  
LCD, 80 characters, 4 lines

Expansion I/O port  
25-pin D-connector  
- digital inputs  
Eight, HCMOS standard  
- digital outputs  
Eight, HCMOS standard  
- analog inputs  
Two  $\pm 2.047$  V

Communication ports  
RS-485

Instrument power  
AC adapter: 115 V/12 VAC  
daisy chain cable: 12 VAC  
(with TLIF)

Dimensions (L x W x H)  
180 x 180 x 180 mm  
(7 x 7 x 7 in.)

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