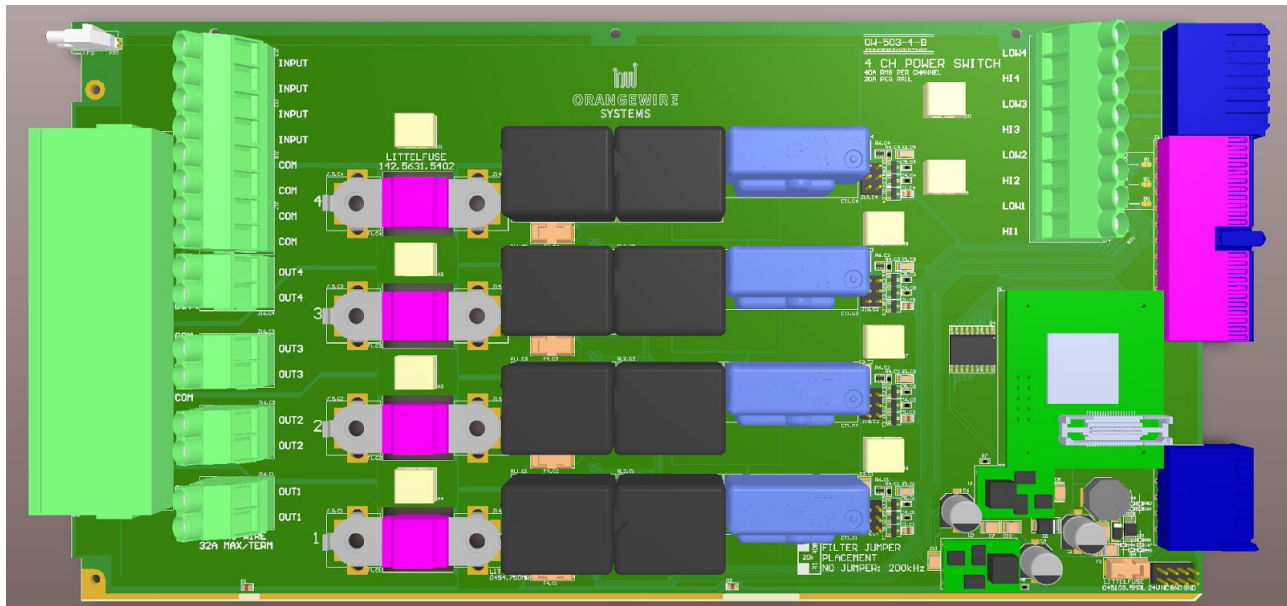


# Datasheet

## OW-503-4

### 4 Channel Power Switch



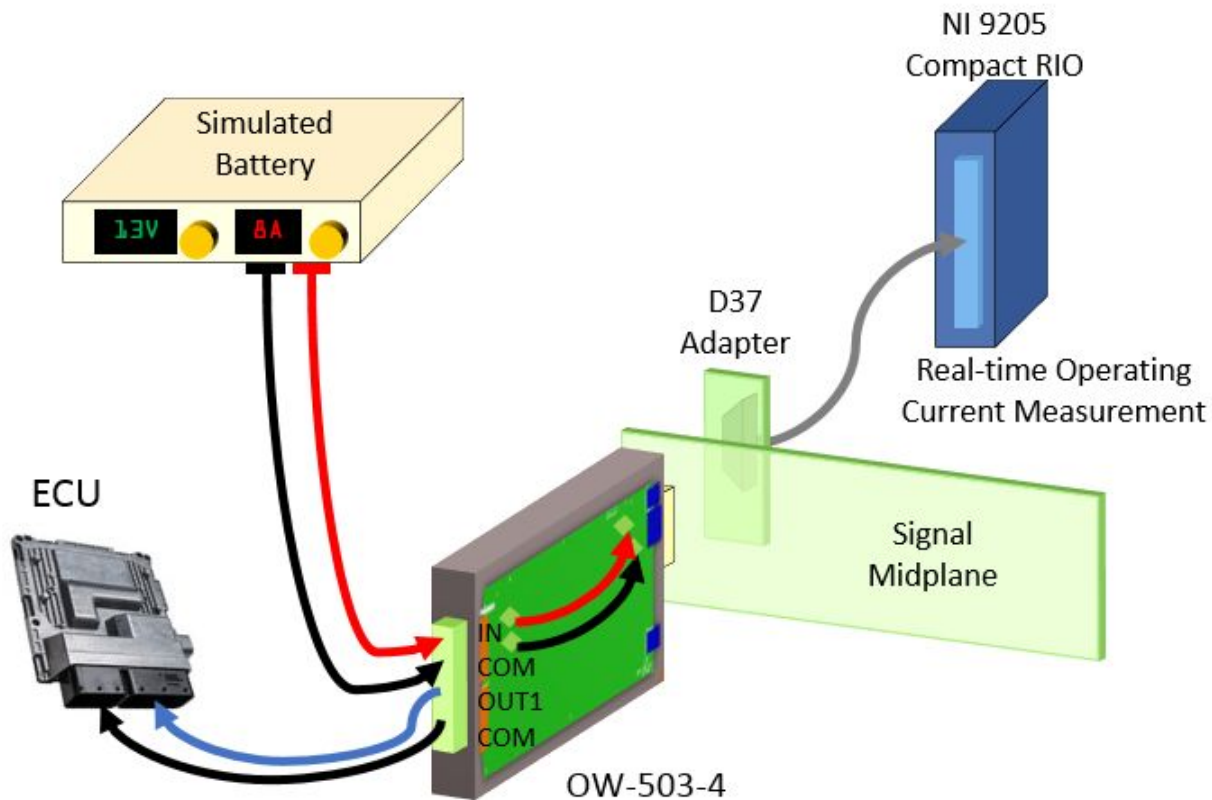
## Overview

The OW-503-4 is a 4 channel intelligent power switch that controls four channels of power in-to or out-of the SLSC Chassis. The board is used to provide programmatically switched power to SLSC based Hardware in the Loop (HIL) systems and Devices Under Test (DUT).

Fully isolated high side hall-effect current sensors provide accurate real-time current data (up to 55A peak) with four selectable filters while the DUT is operating. When the DUT is put into sleep mode ( $I < 100\text{mA}$ ), a high accuracy shunt provides microamp current sense data to measure battery drawdown.

The OW-503-4 is designed for the National Instruments (NI) Switch Load Signal Conditioning (SLSC) system, to be used in Hardware-In-the-Loop (HIL) simulators. This card is used to test prototype or production Electronic Control Units (ECUs or generically Devices Under Test or DUTs) for the purposes of developing, verifying, and validating ECU software and hardware.

- 4-Channel Power Switching Board
- Switches power to the OW-130 Midplane
- Switches power from the OW-130 Midplane
- For NI SLSC system
- For DET HIL simulation
- 40A per channel
- Use with NI PXI or CompactRIO



## Application

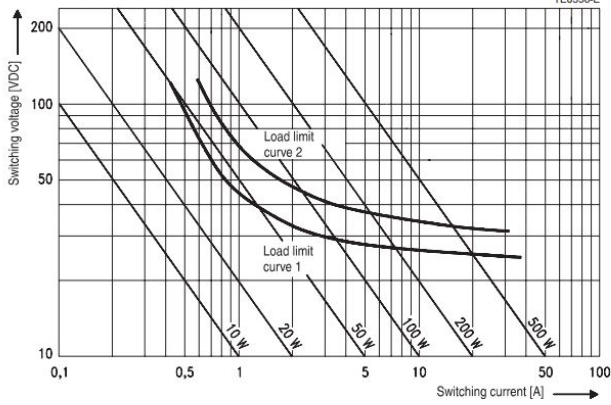
The OW-503-4 may be used in any application where low frequency, high power switching is required with operating current measurement up to 55A and sleep mode current measurement of  $<10\mu\text{A}$  accuracy. Some examples are simulating battery connect/disconnect, battery terminal reversal, ground offsets, and fused power input to an SLSC based HIL system.

## Specifications

<b>Absolute Maximum Ratings</b>	
Operating Current Measurement Range	±55A
Power-down Maximum Current	100mA
Operating Maximum Continuous Current	40A (fused)
Input Signal Voltage	200V
Reference Output	20A

<b>Operating Specifications</b>	
<b>General</b>	
Number of Channels	4
Reference Power Connectivity	12 position, 41A, 7.62mm Phoenix
Operating Current Sense Technology	Hall-Effect, LEM LAH 25-NP sensor
Operating Current Sense Accuracy	± 0.3% (Sensor accuracy)
Power-down Current Sense Technology	10 Ω 0.1% resistor
<b>Input</b>	
Current ( $I_{PN}$ ) Measuring Range	±55A
Bandwidth	200 kHz
<b>Output</b>	
Voltage Output Range	-10 to +10 V
Output Filter Cutoff Frequencies	1kHz, 20kHz, 80kHz, 200kHz

**Max. DC load breaking capacity**



**Coil operating range**

