



# WF 3144

## C-Series Programmable Resistor Module

The WF 3144 from WireFlow is a 4-channel, 16 bit, programmable resistor module for Compact RIO. Each channel is galvanically isolated, making it ideal for sensor simulation.

The 16 bit resolution is non-linear with finer steps at lower resistance values. It could, for example, be used to emulate a PT100 sensor with a range of 40–180Ω/-150–+200°C with a resolution of 0.1°C.

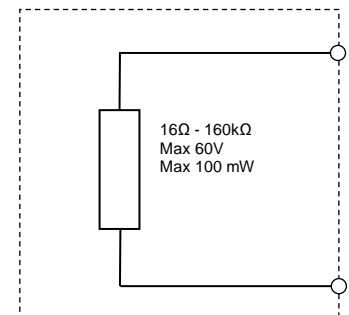


## Application areas

- Resistive sensor simulation; Pressure sensors, Thermistors, RTDs etc.
- ATE (Automatic Test Equipment)
- HiL testing (Hardware in the Loop)
- Laboratory testing of electronic control units
- Automated calibration and alignment
- Automation of manual controls

## Features

- Four independent, galvanically isolated channels
- Entirely solid-state simulation
- High resolution with non-linear scaling
- Wide resistance range
- Enhanced accuracy mode
- On-board calibration memory
- LabVIEW driver included
- Compatible with NI VeriStand
- Combines permutations of real resistors to achieve desired value



## Specifications

Number of channels	4	
Max Voltage	60 V	
Max Power	100 mW/channel	
Range	16 Ω – 160 kΩ	
Max error in Normal mode	R < 100 Ω	0.03%
	R < 1 kΩ	0.1%
	R < 10 kΩ	1%
	R < 160 kΩ	10%
Max error in Enhanced mode	32 Ω < R < 160 kΩ	0,25%
Max update rate	200 Hz	

## Isolation Voltages (rated working voltage)

Channel-to-channel, continuous	250 Vrms
Channel-to-earth ground, continuous	250 Vrms

WireFlow AB

Theres Svenssons gata 10  
SE-417 55 Göteborg  
Sweden

www.wireflow.se

WF 3144 Data Sheet  
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