



Tomorrow's Telemetry Today!

Da-Tel Research Company, Inc.
 932 N. Park Avenue
 Montrose, Colorado 81402
 www.da-telresearch.com

Phone: (970) 249-6129
 Fax: (970) 249-8919

Email: info@da-telresearch.com

INSTRUCTION INFORMATION FOR THE G-8804A ANALOG ISOLATION MODULE

- * 4 FLYING-CAPACITOR INPUTS
- * 4 ISOLATED CURRENT-LOOP OUTPUTS
- * CONSTANT HIGH INPUT IMPEDANCE

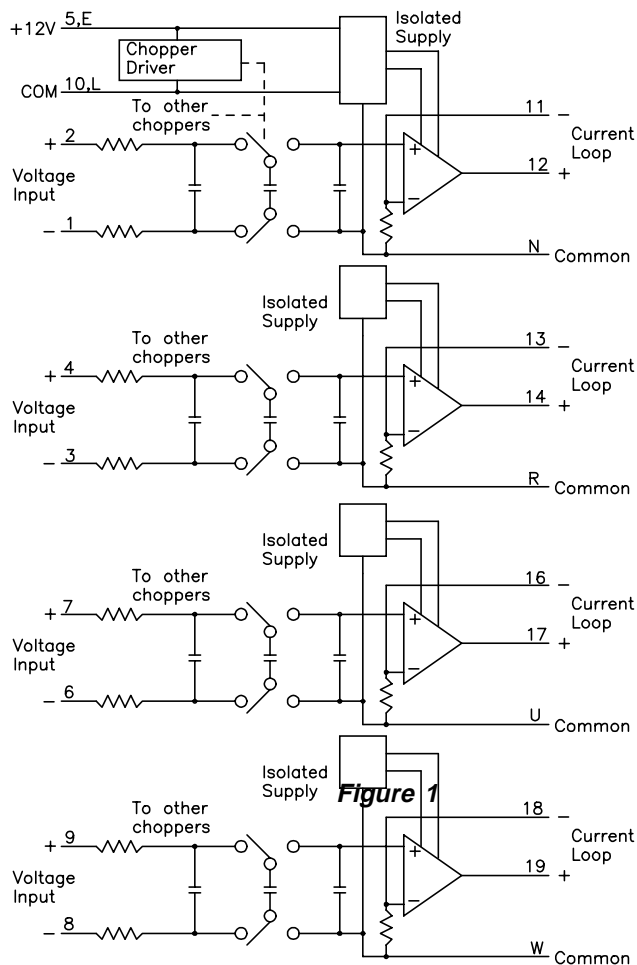


GENERAL

The G-8804A Analog Isolation Module employs a flying-capacitor input for each of the four inputs. This flying-capacitor input totally isolates the driving source from the G-8804A outputs and provides a consistent high input impedance.

Figure 1 shows a simplified schematic of the G-8804A and the input-output configurations. The chopper driver controls the flying-capacitor switches for all 4 inputs. Once the inputs are sampled, an operational amplifier driver powered from an isolated power supply generates the current loop output. The current loop output may be converted to a voltage output and using the isolated supply common. J1 - J4 adds a resistor in the feedback path to perform the conversion to voltage.

Figure 2 shows a typical application where high input impedance and isolation are important. The two current sources, I1 and I2, use the loop resistors, R1 and R2, to produce a sum of the currents shown as V. It is important to not only NOT draw current from the sources, but also to not disturb another device possibly monitoring V.



SPECIFICATIONS

Size: Standard Da-Tel Module

Weight: 8 oz.

Temperature Range: 0° to 70° C.

Power Requirements: 30 mA per stage at 12 Vdc.

Accuracy: +/- 0.2% over temperature range.

Input Range: +/-10 Vdc maximum, 1 mV resolution.

Input Impedance: greater than 1 megaohm.

Output Range: +/-1 mA into 10 Kohm maximum,
+/-20 mA into 350 ohm maximum,
+/-10 Vdc output maximum.

Output Impedance: less than 100 ohms.

Input and Output Isolation: 500 Vdc.

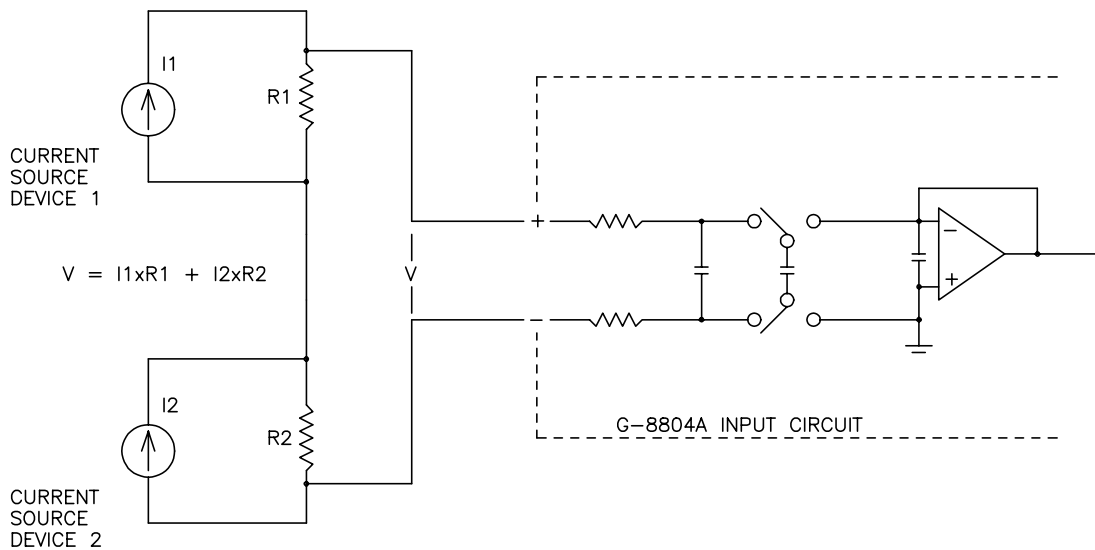


Figure 2

For more information about Da-Tel Research Company and our products, contact:

DA-TEL RESEARCH COMPANY, INC.

932 North Park Ave.

Montrose, CO 81402

Phone: (970) 249-6129

Fax: (970) 249-8919

Toll-Free: 800-324-8388

e-mail: info@da-telresearch.com

or visit us at:

www.da-telresearch.com

**Equipment and/or components purchased through Da-Tel but manufactured by other companies are covered under the warranties of those manufacturers.*

NOTICE

As of the date of this printing, the specifications for the G-8804A in this Instruction Information sheet apply to all G-8804A, except as indicated. Because all Da-Tel products are continually being refined and improved, these specifications are subject to change without notice.