



# Analog Voltage Divider Interface • CAVD-1

The CAVD-1 has been designed to extend the voltage measurement range of the analog inputs on the Davicom DV series of Remote Monitoring and Control units.

When connected to an analog input of a DV unit, the interface forms a voltage divider with the input's internal impedance. Voltages up to  $\pm 50\text{VDC}$  can be safely measured with this device. For example, it can be used to monitor the 48V battery voltage on Davicom units that are powered by a -48V power source.

The interface should be installed directly on one of the I/O panel analog input terminals by inserting the pins (V+, AGND and V-) into the proper terminal blocks and securing the screws.



Electrical Specifications		
	DV-Mini	DV-200
Approximate Dividing Ratio	1/10	1/4 to 1/2
Maximum Voltage	$\pm 50\text{VDC}$	
Input Impedance	$> 2\text{ M}\Omega$	
Terminal 1	GROUND (GND)	
Terminal 2	INPUT VOLTAGE (VSUP)	

Note that in order to obtain correct readings, the input voltage range on the unit's analog input must be set to  $\pm 10\text{V}$  or  $\pm 20\text{V}$ .

For direct readings in Volts on the  $\pm 10\text{V}$  input scale, set the ABC coefficients to:

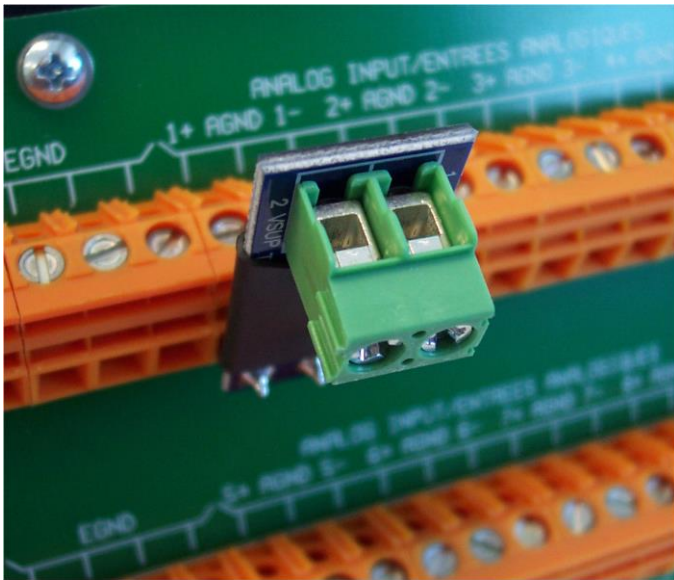
DV-Mini: A=0, B=9.9759, C=0, D=0  
DV-208/216: A=0, B=3.8339, C=0, D=0

For direct readings in Volts on the  $\pm 20\text{V}$  input scale, set the ABC coefficients to:

DV-Mini: A=0, B=10.4544, C=0, D=0  
DV-208/216: A=0, B=2.4187, C=0, D=0

## CAVD-1 INSTALLATION PROCEDURE

- 1) Install the CAVD-1 on one of the I/O panel's analog input terminals.



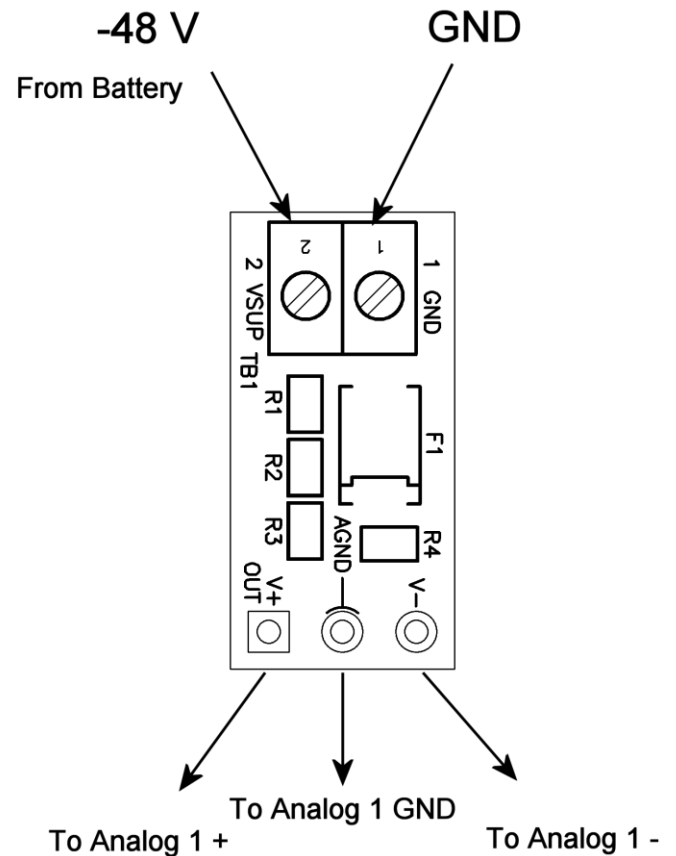
### Installation on the Davicom I/O panel.

- 2) Secure the CAVD-1 with the terminal screws.
- 3) Run power cables from the power source to the green connector on the CAVD-1. GND is terminal 1 and battery voltage input is terminal 2.



**RISK OF ELECTRICAL SHOCK.**

**INSTALLATION MUST BE CARRIED OUT BY QUALIFIED PERSONNEL.**



### Typical connections for -48V measurement (CAVD-1 viewed from top).

- 4) Set the DV unit analog input range to  $\pm 10V$  in the Davicom software.
- 5) Set the internal jumpers (DV-208/216 only) to the  $\pm 10V$  measurement range.
- 6) For direct readings in Volts, set the ABC coefficients to:

DV-Mini: A=0, B=9.9759, C=0, D=0  
 DV-208/216 : A=0, B=3.8339, C=0, D=0