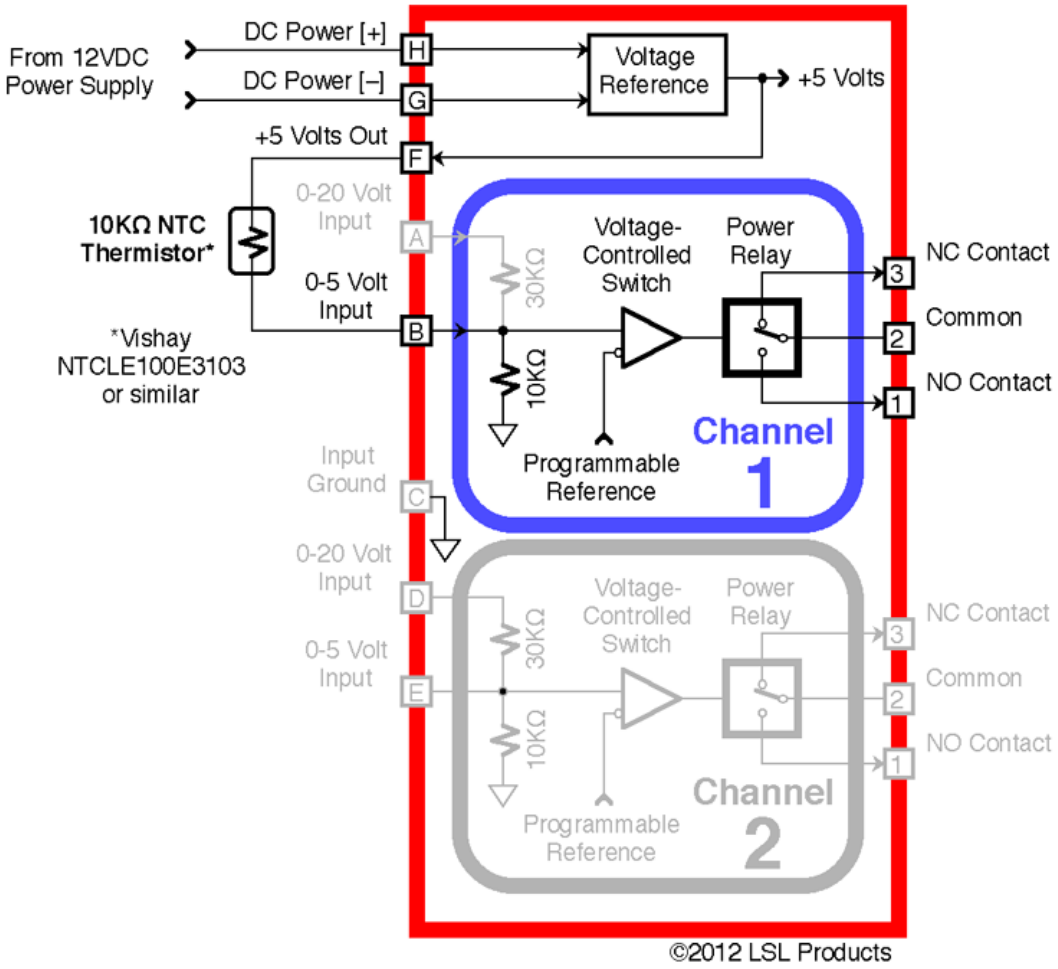
Pro-VCS™ Application Example:

THERMOSTAT



This configuration uses a temperature-sensitive resistor (or "Thermistor") that is connected to produce a voltage which is proportional to its temperature. Essentially, the Thermistor forms the upper part of a resistive divider circuit, and the 10K Ohm resistor which is built into the **Pro-VCS™** unit forms the lower part. As the Thermistor is exposed to different temperatures, its resistance will change, causing the voltage at the center of the divider to also change. We can program the **Pro-VCS™** to turn on or off at these different voltages, thereby allowing the unit to function as a thermostat. Only one of **Pro-VCS**'s two channels is required to build this circuit.

This particular Thermistor has a negative temperature coefficient - which means that its resistance decreases as it gets warmer. Thus, the configuration shown will produce a higher voltage in warmer temperatures (closing the **NO** relay contacts), or a lower voltage in cooler temperatures (closing the **NC** relay contacts instead).

Typical applications would to control a refrigerator, air conditioner, cooling fan, etc. Note that using the relay's NC contact allows this configuration to also control heating devices.

Source for the NTCLE100E3103 Thermistor: MOUSER ELECTRONICS (www.mouser.com)