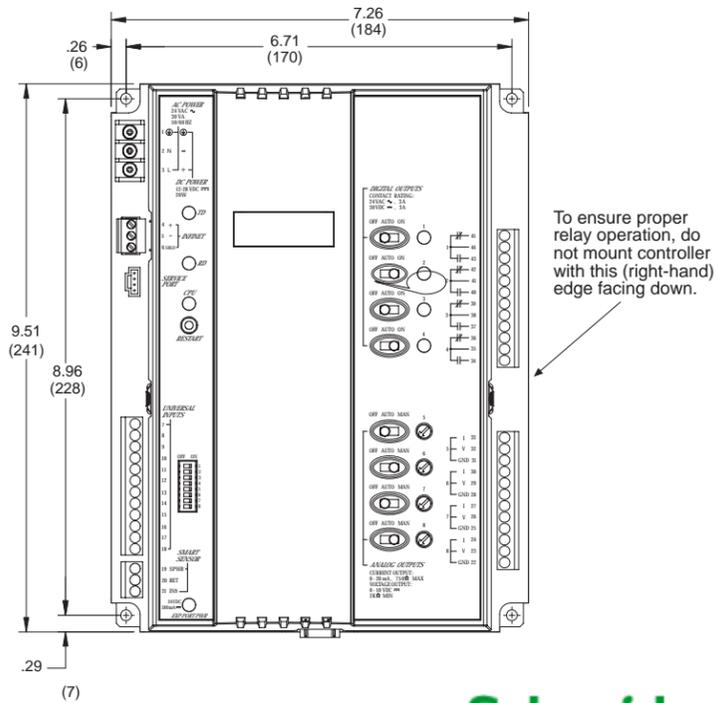


Mechanical



Schneider Electric

810 Series Installation

30-3001-468 Rev G

Wiring Rules

These modules are intended for installation within the enclosure of another product.

Do not remotely ground any part of the input sensor wiring.

Remote grounds connected to the return terminal could make the system operate incorrectly or damage the equipment.

The signal return is not true earth ground. It is an electronic reference point necessary to interpret the sensor properly.

For reliable input operation, follow these input wiring guidelines:

- Never lay wires across the surface of a printed circuit board.
- Wires should never be within 1 in. or 25 mm of any component on a printed circuit board.
- Use shielded input wire.
- Terminate the shield of the input wires at one end of the run only—preferably at the end where your I/O module is located.
- Be careful when stripping wire not to drop small pieces of wire inside the cabinet.
- Don't run your input wiring in the same conduit with AC power.
- Don't run your input wiring in the same conduit with your output wiring.

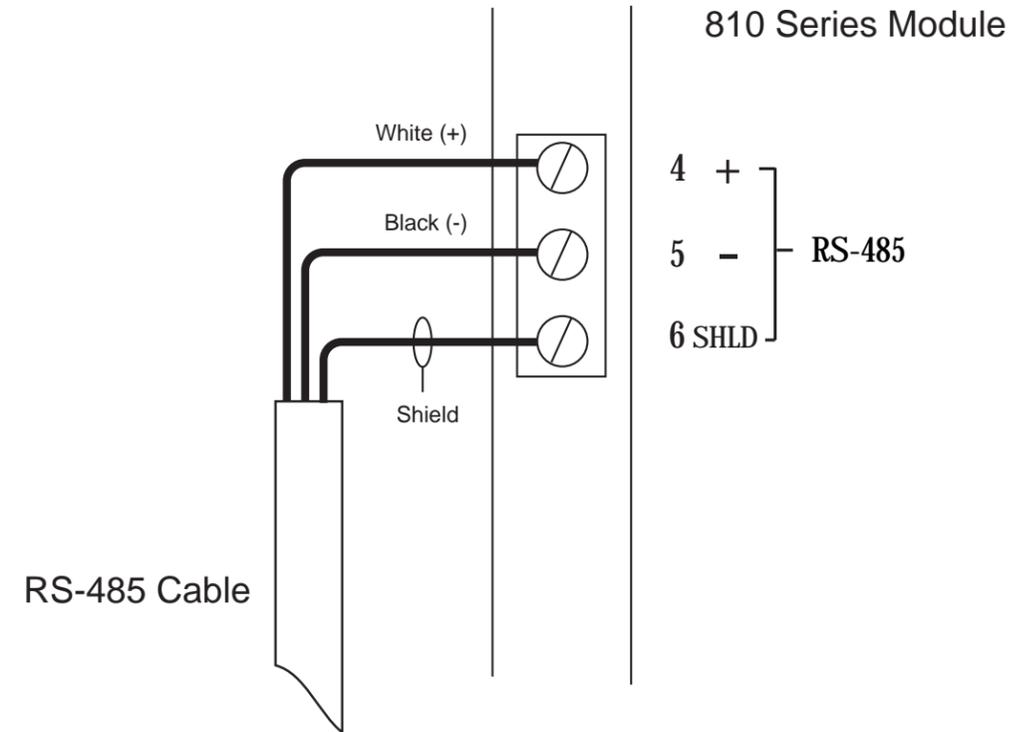
Grounding the Controller

To insure proper operation of the controller, it is imperative that it be connected to a good earth ground. It is important that this connection be made as close to the module as possible.

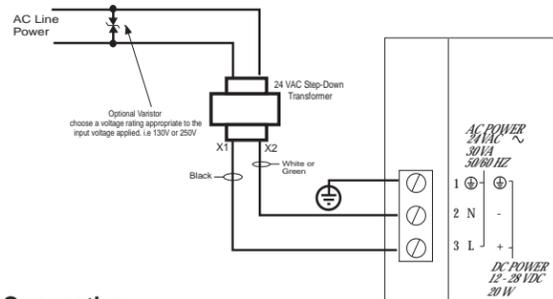


Caution: Earth ground (⊕) must be connected to avoid module damage.

RS-485 Connection



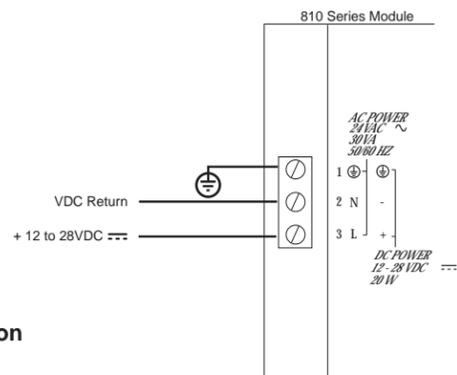
Power & Battery Backup Connection



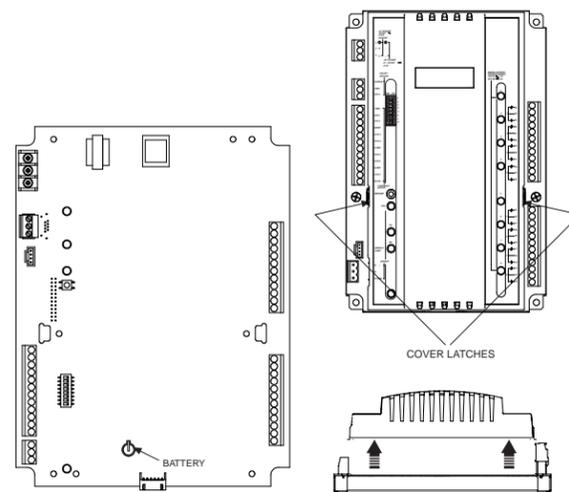
AC Connection

Use a separate transformer for each unit installed.

Use care when attaching power wiring to these connectors. They are not to be used as a strain relief. The connectors cannot withstand excessive bending or flexing.



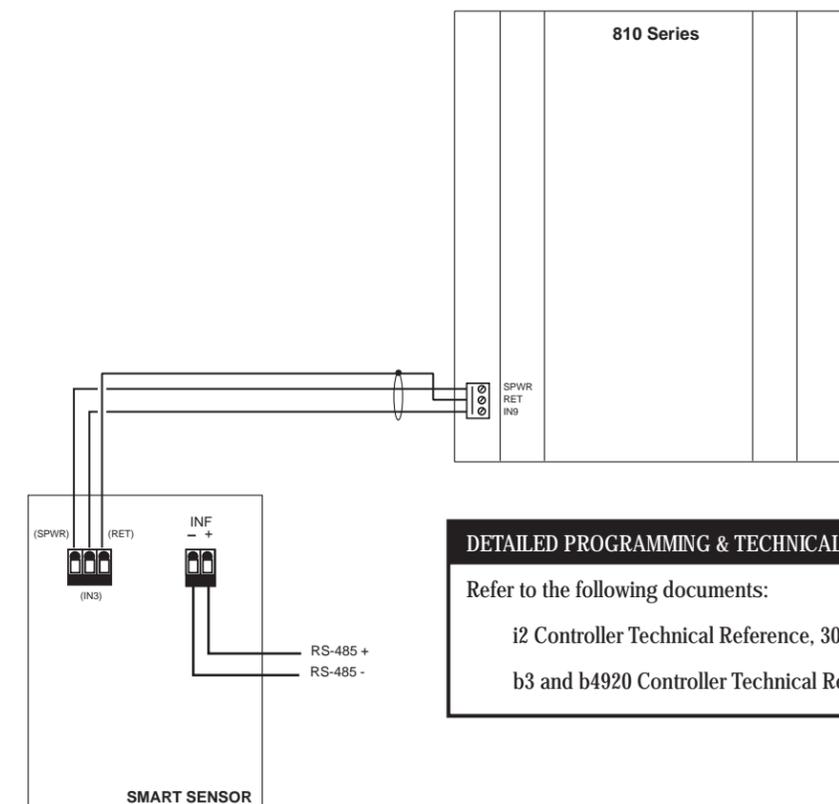
DC Connection



BATTERY ENABLE INFORMATION

During shipment, an insulating plastic tab is inserted under the clip on the battery to prevent it from draining prior to installation. To activate the battery, this tab must be removed. Remove the cover to access the board.

Smart Sensor Bus Interface (IN9 & SPWR)



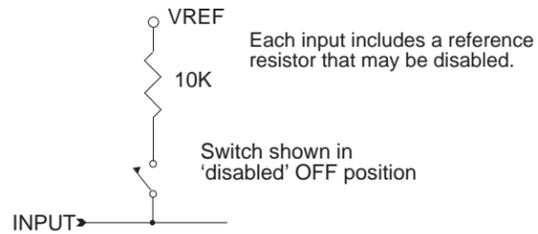
DETAILED PROGRAMMING & TECHNICAL INFORMATION

Refer to the following documents:

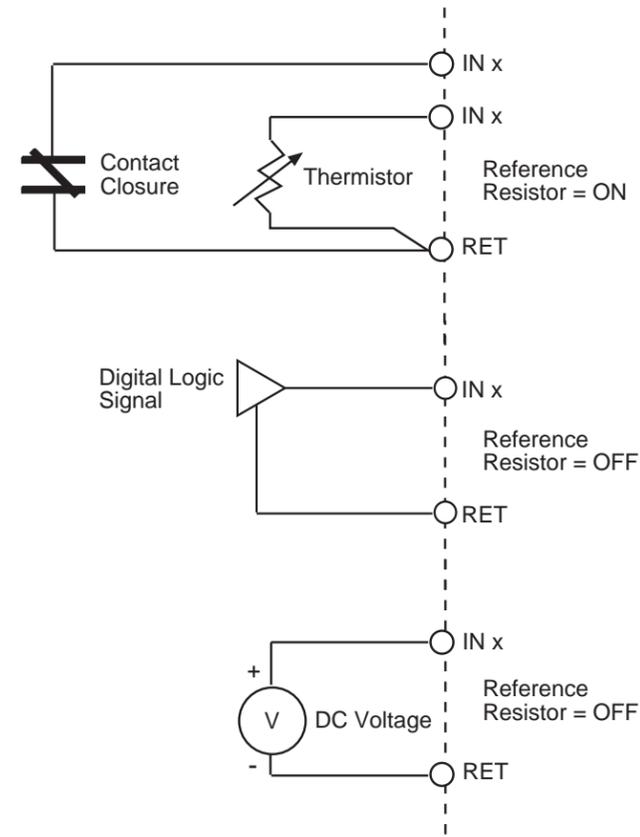
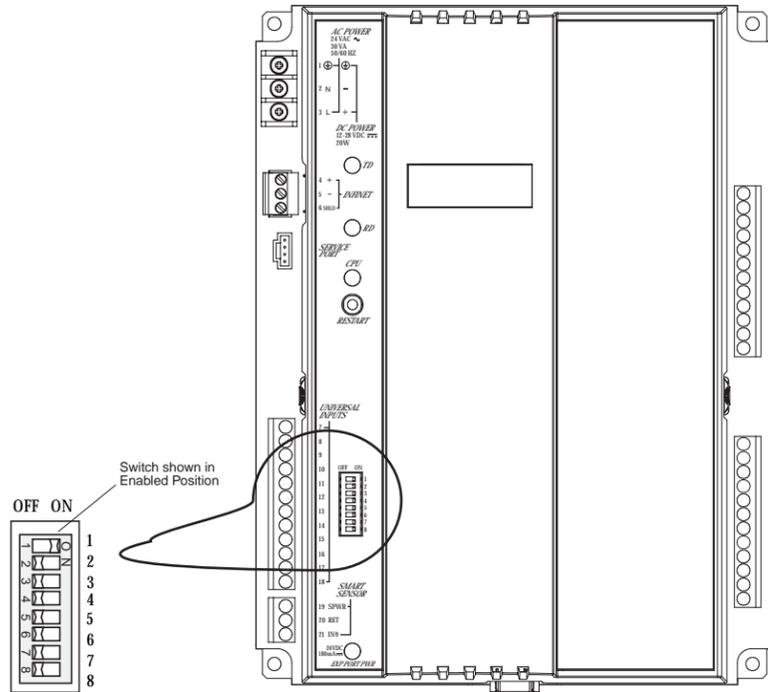
i2 Controller Technical Reference, 30-3001-861

b3 and b4920 Controller Technical Reference, 30-3001-862

Inputs



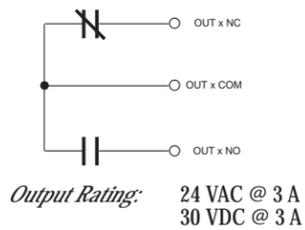
Accessing the Reference Resistor Switch



Max DC Input Voltage = 10V

Outputs

Digital Relay Output

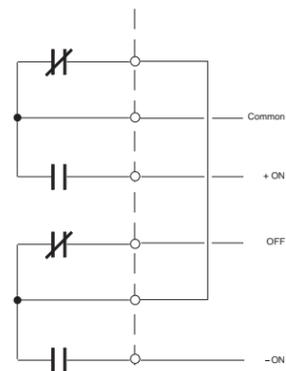


Output Override Control



- ON** The output relay is energized to an 'ON' state manually by setting the switch to ON. Programs have no effect on the output when the switch is in this position.
- AUTO** The action of the output relay is determined as a direct result of program control.
- OFF** The output relay is de-energized to an 'OFF' state manually by setting the switch to OFF. Programs have no effect on the output when the switch is in this position.

Tristate from 2 Relay Outputs

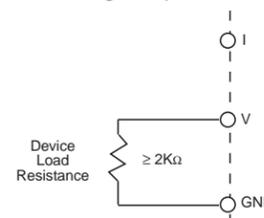


Although the controller contains eight separate form C relays, adjacent pairs of these can be combined at any one time to form standard Tri-state outputs:

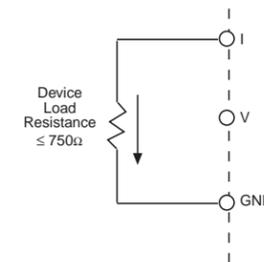
- OUT1 and OUT2 — 814 Tri-State Possibilities — 810 Tri-State possibilities
- OUT2 and OUT3
- OUT3 and OUT4
- OUT4 and OUT5
- OUT5 and OUT6
- OUT6 and OUT7
- OUT7 and OUT8

Analog Output (814 only)

Voltage Output



Current Output



Current Output: 0 - 20 mA
Voltage Output: 0 - 10VDC

Analog Output Override



- OFF** The output is set to zero volts, zero mA. Programs and the setting on the potentiometer have no effect on the output Device when the switch is in this position.
- AUTO** The analog signal is generated as a direct result of program control. The setting on the potentiometer has no effect on the output Device when the switch is in this position.
- MANUAL** The analog signal generated by the module is controlled manually by adjusting the potentiometer. Programs have no effect on the output when the switch is in this position. This is a variable control that allows you to manually adjust the output of the analog signal when the override switch is in the MANUAL position. Insert the tip of a small screwdriver to use this control. Turning to the right (clockwise) increases the output. Turning left (counterclockwise) decreases the output.