867 Installation

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 Modules

Some modules include an integral ground clip for grounded DIN rail mounting. All modules include a screw terminal connection for earth ground. It is important that this connection be made as close to the module as possible.

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.

Use a separate transformer for each unit installed unless units are installed next to each other.

AC Power & Battery Backup Connection

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 as shown below to access the board.

RS-485 Connection

Smart Sensor Bus Interface (IN5 & SPWR)
Each input includes a reference resistor that may be disabled.

Max DC Input Voltage = 5V

Adjacent output pairs:
- OUT1 and OUT2
- OUT2 and OUT3
- OUT3 and OUT4
- OUT4 and OUT5

These can be combined to form a standard Tri-state output.

Configure the output point of the first point of a pair (e.g., OUT3 of the pair OUT3 and OUT4) with an Electrical Type of Tri-state.

Output Rating:
- 24 VAC, 0.5 A (Cannot switch DC Loads)
- Minimum Load Current: 30 mA

Voltage Output = 0 - 10V

Device Load Resistance ≥ 2KΩ

Refer to the following documents:
- i2 Controller Technical Reference 30-3001-861
- b3 and b4920 Controller Technical Reference 30-3001-862