

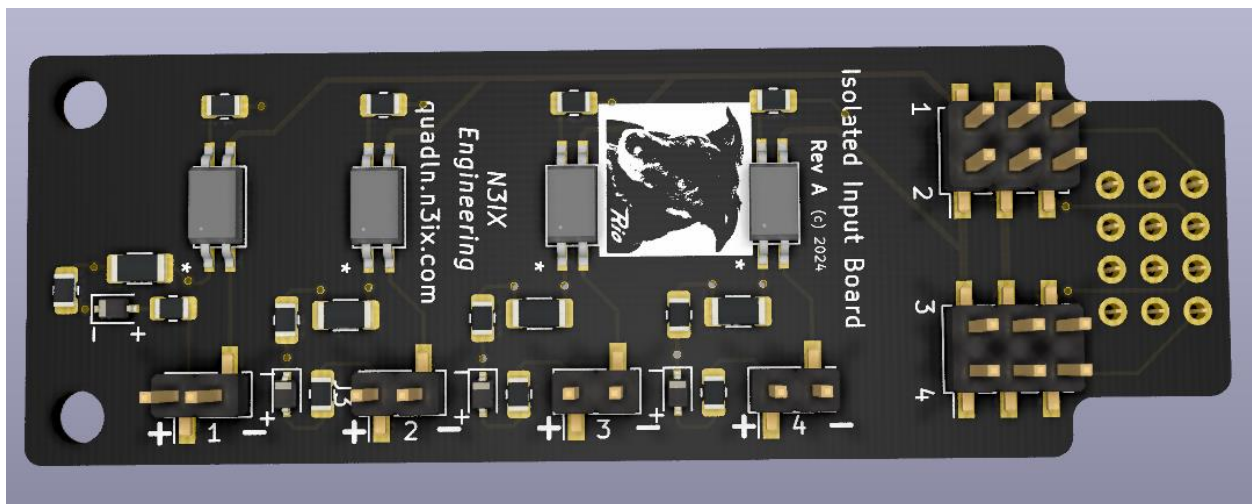


Isolated Input Board Instructions

The Isolated Input Board allows non-isolated signals from separately powered devices to be monitored by the QuadLN_S and reported over Loconet. DC signals above about 3.5VDC and DCC signals can be connected to the Isolated Input 2-pin headers. **Only connect these signals to the Isolated Input 2-pin headers , never connect them to the 3-pin headers.**

Each Isolated Input channel has a 2-pin header for connecting the input signal. Observe the input polarity, indicated by the “+” and “-” signs, when connecting DC inputs. DCC inputs can be connected either way.

If any Isolated Input channel is not needed, a standard 3-pin header is provided to allow access to the IO port for use with QuadLN_S accessories such as fascia controllers, relay boards, etc. When connecting a device via the 3-pin header, do not connect anything to the corresponding Isolated Input 2-pin header. **Do not connect anything other than QuadLN_S accessories to the 3-pin headers.**

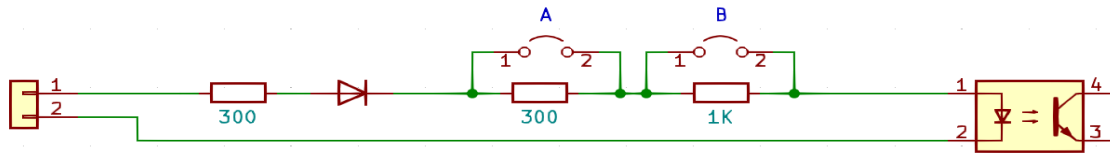


For use with DC input signals the Isolated Input Board can be plugged into the MAIN IO Port or AUX IO Port. For each IO used as an Isolated Input: Set Trigger to Both Edges; Set Freeze on DCC to Always Live; Set LED Mode to Input Only.

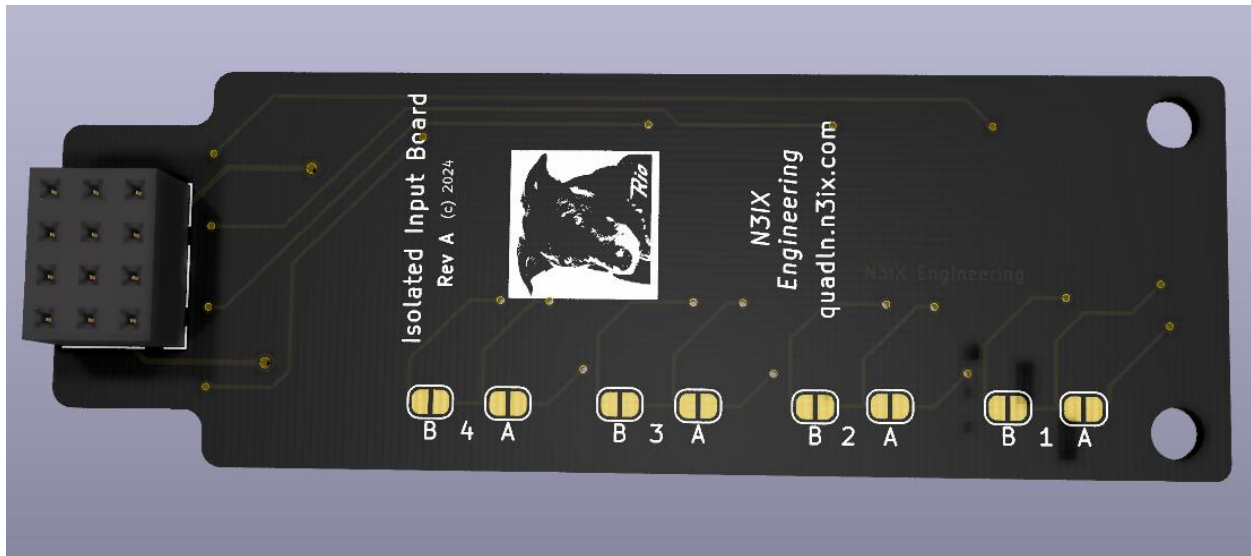
If one or more of the inputs is used to detect the presence of DCC, the Isolated Input Board must be plugged into the MAIN IO Port. For each IO used to detect DCC presence: Set Input Type to TVD Detector; Set Trigger to Both Edges; Set Freeze on DCC to Always Live; Set LED Mode to Input Only.



Each Isolated Input channel has a reverse protection diode plus three resistors in series to limit the input current.



Two of the three resistors can be bypassed via solder jumpers on the bottom side of the board. The solder jumpers for each input channel are labeled “A” and “B”.



For DC inputs between 3.5 VDC and 5 VDC, install both solder jumper A and solder jumper B.
For DC inputs that already have resistors that limit the (short circuit) current to 10 mA or less, install both solder jumper A and solder jumper B.

For DC inputs between 5 VDC and 10 VDC, install solder jumper B only.

For inputs between 10 VDC and 24 VDC, and for DCC inputs, do not install any solder jumpers.

DC inputs over 24 VDC, you must install supply an external current limiting resistor to supplement the 1.6K onboard resistance. Do not install any solder jumpers. The external resistor value chosen must result in an input current between 5 mA and 15 mA. **The voltage measured across the 2-pin header must never exceed 24 VDC.**

Misuse such as not following the instructions regarding use of solder jumpers or using an incorrect external resistor value can result in destroying the input channel. This type of damage is not covered by warranty so please use care.