

## Proper Wiring of IO on a 1000 series Eason Unit

Proper connections to the IO of the Eason 1000 series of product is essential for proper operation and to prevent damage to the IO. The IO on the model 1000 and 1100 are rated for 5-30 VDC limited to a **maximum of 30 mA**. Exceeding this current limit will destroy the IO point.

To limit the current on an IO point a Pull-Up Resistor is required for those applications requiring other than 5 Volt Logic levels. The value of the pull-up resistor can be calculated from the following equation  $R_{min} = V_{ref} / .03$  where  $V_{ref}$  is the operating voltage.

Due to the sinking nature of the IO the following convention should be observed:

IO @ 5 Volts or 1 state is equivalent to an Inactive signal.

IO @ 0 Volts or 0 state is equivalent to an Active signal.

This will prevent strobing conditions on power up and other inconsistencies. Use of an Opto or similar isolation board will allow for this situation. When wiring directly into an Output with a relay or other output device use the diagram below. If the device in the control module is capable of running off of 5V at 30 mA or less you can omit the pull-up resistor and connect  $V_{ref}$  to the 5V output on the I/O connector.

