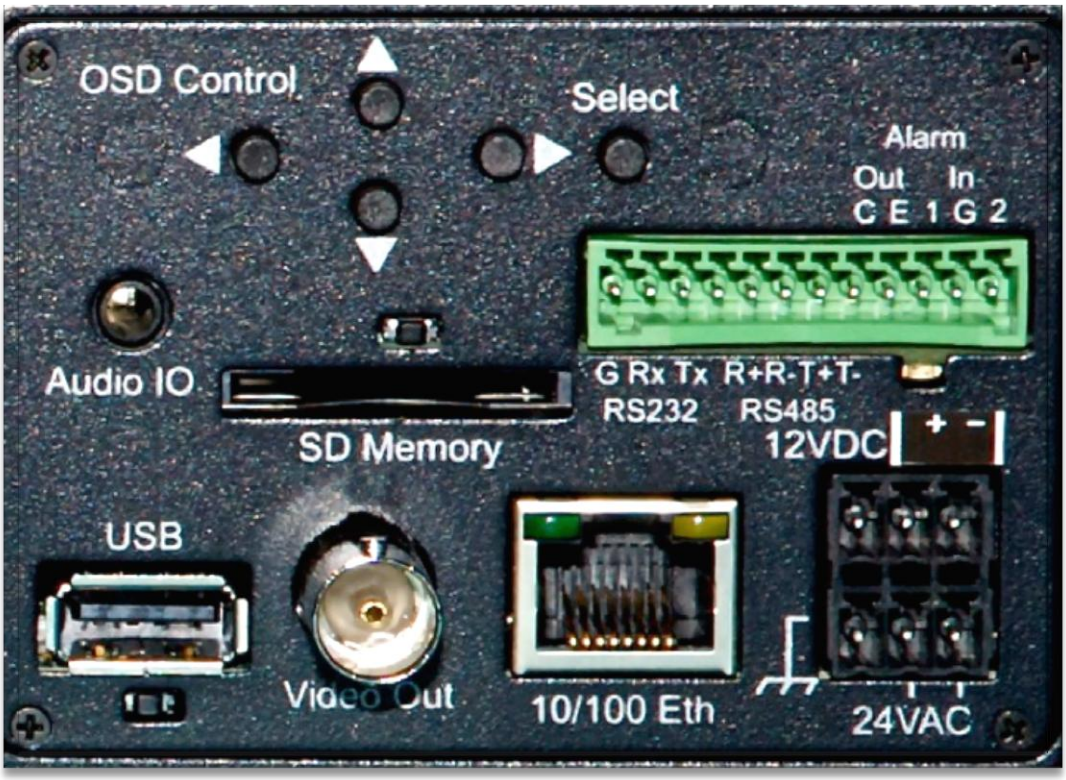
VIDEOIQ

TechNotes

iCVR Alarm I/O

The VideoIQ iCVR offers (2) alarm inputs and (1) alarm output for interfacing with other devices and sensors in your environment. These alarm I/O's provide an opportunity for enhanced flexibility in iCVR installations and allow you easily tie into alarm panels, external relays and similar components.

Alarm I/O's are found on the back panel of the iCVR Encoder and iCVR Camera. Connection to the alarm I/O pins is done via the included 12 position green connector block. Wires can be inserted into this block by pressing on the orange release button above the hole for the associated pin and then inserting an 18-22ga wire and release the orange button to hold the wire by an internal spring mechanism. Using wires that are too large or too small may compromise the holding ability of the connector. Once all wires have been inserted the connector can be snapped onto the socket on the back of the iCVR. All rear-panel inputs are labeled for easy reference.



iCVR alarm inputs are TTL-level inputs, meaning that they accept a low-voltage DC input signal. This signal should be between 3.3 and 5VDC for an active or high state, and between 0 and 1VDC for an inactive or low state.

Connect the signal output from your device to the alarm input labeled "1" or "2". Connect the ground or common wire from your signaling device to the input labeled "G", this will complete the electrical circuit between the iCVR and your signaling device.

If the signaling device that you want to connect to the iCVR only offers a contact closure output (such as from a dry-contact relay output) you will need to add a 5V power supply in-

line with this output, so that when the signaling devices dry-contact out is activated it provides this 5VDC signal to the iCVR.

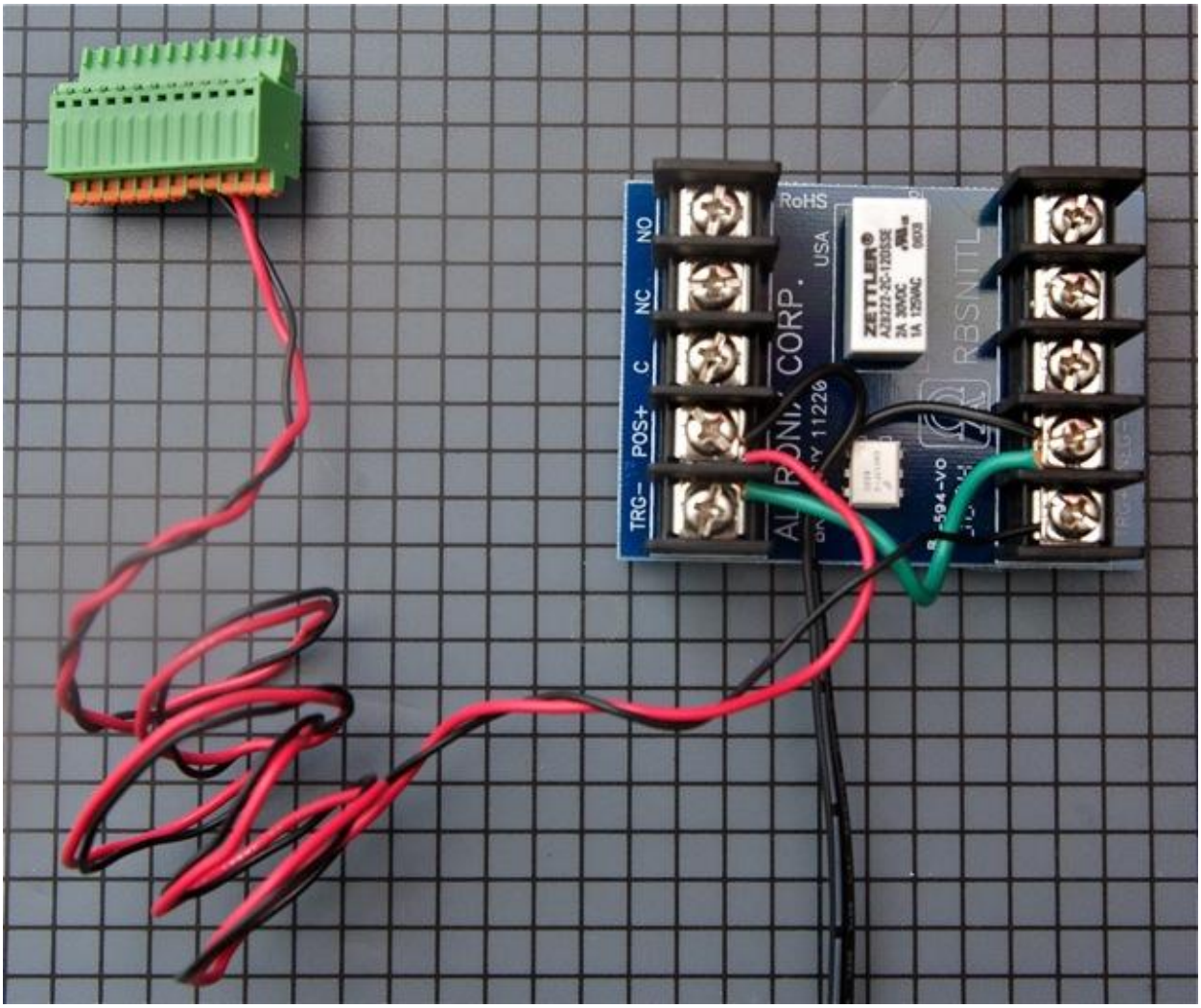
When adding an ROI to a rule, you can select the "Requires Active Alarm Input" checkbox, which means that the object(s) defined in the rule need to be not only present in the ROI, but that the alarm input must also be active before an alarm event will be triggered. One example of this use is to tie an Arm/Disarm indicator output from an alarm panel into the iCVR's alarm inputs. Configure ROIs in rules to use the alarm input, and you can cause the iCVR to only generate alarms when an object is present AND the associated alarm panel is armed or disarmed. This can be valuable when doing remote site monitoring, as an employee turning off the perimeter alarm system can also deactivate the alarms from the iCVR cameras.

The iCVR alarm output is an optical relay output. This output is different from a relay or dry-contact output in that it is a solid-state transistor output, designed for low current (20ma max.) signal and is polarity sensitive.

When interfacing with a modern alarm panel or similar device you can connect the alarm output pins directly to the monitoring devices input zone.

If you prefer to have a dry-contact style output available, the iCVR's alarm outputs would be connected to a device commonly known as a "TTL relay board". There are several of these products available; one such example is the Altronix RBSN-TTL board. This device is designed to take a small input voltage and activate a 2Amp DPDT relay. This board can be wired to the iCVR's alarm output with an external power supply to achieve a dry-contact relay output in conjunction with an active alarm.

The RBSN-TTL is wired as shown in the following photo:



Connect the external 12-24VDC power supply for the relay board to the terminals labeled "POS+" and "NEG-", making sure to observe correct polarity. Next, connect a jumper wire from the "NEG-" terminal to the "TRG-" terminal. Connect a wire from the "POS+" terminal to the alarm out terminal on the iCVR labeled "E" or "+". Last, connect a wire from the alarm output terminal of the iCVR labeled "C" or "-" to the "TRG+" terminal on the RBSNTTL board.

After making the connections as described above, connect the green terminal block to the iCVR, and plug the power supply used for the relay board into a suitable power source.

In order to associate the alarm output with 1 or more rules, you will need to go into the "Activity" tab in the Rule setup and select the "Activate Alarm Output" option. Also note that in the "Camera Settings" window, you can specific whether the alarm output should be normally open or normally closed, and also configure the outputs as "Following", meaning the output is active for as long as a Rule is active, or "Momentary", where the alarm output is active only for the time specified and fires once per alarm, no matter how long the alarm duration.