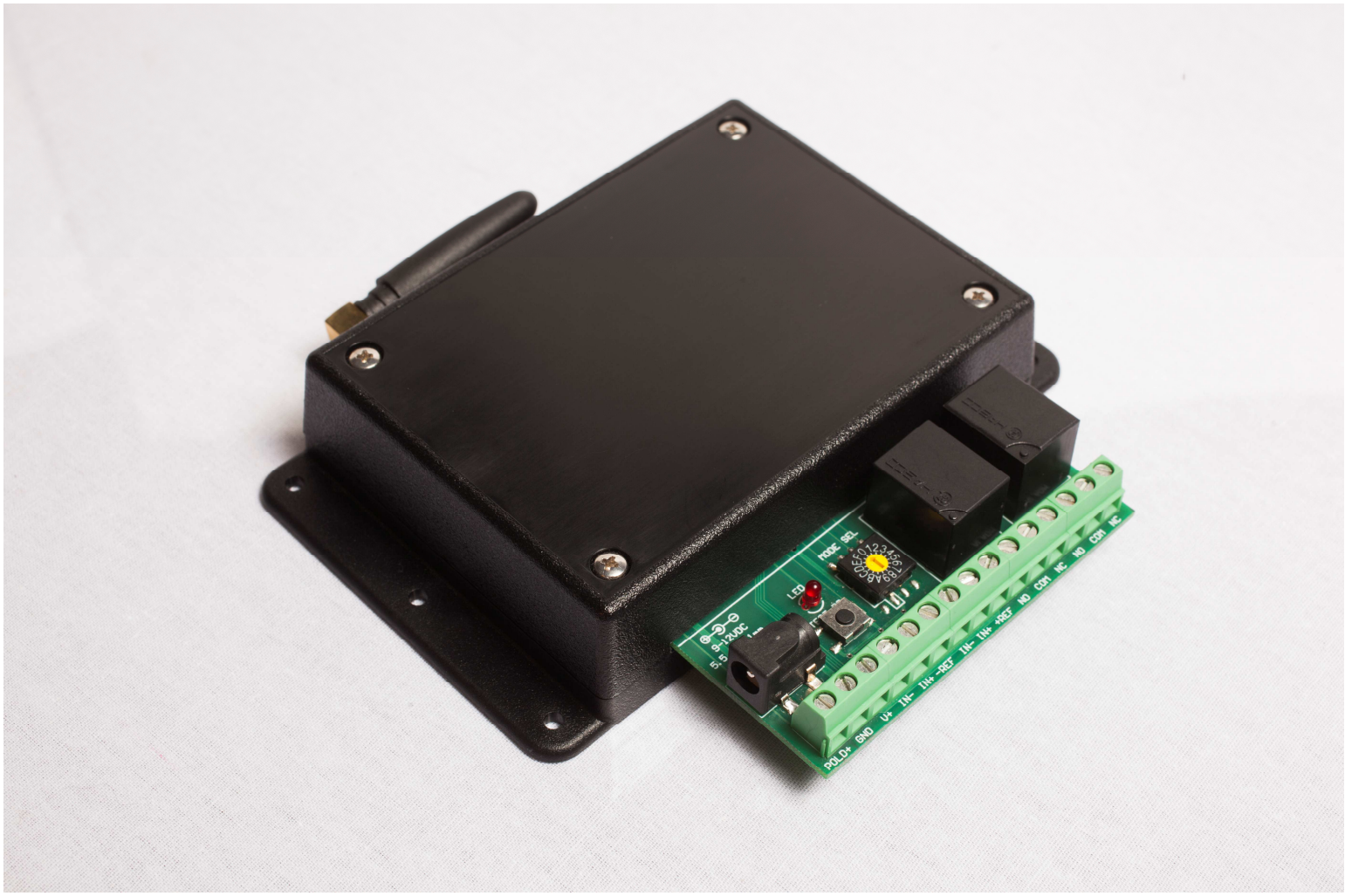
API-Alarm Panel Interface



POLD+ if you were to wire up a POLD sensor to the API (and it is polarized) the Sensor would have its black wire going to GND and its red wire going to POLD+. When the POLD+ goes to GND level, it trips.

The **opto isolators** used for **HOME/AWAY** and **STANDBY** have non-committed inputs for maximum flexibility.

They are current protected up to 20 volts.

The IN+ would need to go to the positive input potential through a switch or wire.

The IN- would need to go to the negative or GND potential through a switch or wire.

Each opto-isolator has its own IN+ and IN- and they can be wired for high going signals, or GND (low) going signals.

The **+REF and -REF** signals are used as the voltage references for the optos. +REF usually reads 12VDC, while -REF is GND.

If (for example) you want the STANDBY to activate when its signal is grounded, then you would wire up the IN+ of STANDBY to the +REF and the IN- goes through a switch or relay to GND. If connecting to an alarm panel, make sure that the GND's are the same potential by connecting its GND to the API GND or -REF pins.

If (for example) you wanted to hook up an Alarm Panel that goes to 12 volts when in AWAY mode. Then wire the Alarm Panel GND and HOME/AWAY IN- to the API GND or -REF and wire the HOME/AWAY IN+ to the 12 volt AWAY trigger signal. (HOME mode is when the AWAY mode is not activated.)

Here are the valid **MODE SEL** combinations:

```
0 - H/A DIS,     STBY DIS,     POLD DIS

1 - H/A ENA,     STBY DIS,     POLD DIS

2 - H/A DIS,     STBY ENA,     POLD DIS

3 - H/A ENA,     STBY ENA,     POLD DIS

4 - H/A DIS,     STBY DIS,     POLD ENA

5 - H/A ENA,     STBY DIS,     POLD ENA

6 - H/A DIS,     STBY ENA,     POLD ENA

7 - H/A ENA,     STBY ENA,     POLD ENA
```

8 - F is presently unused.

These settings will selectively create events that the API can generate and transmit to the control panel. **DIS** means that function is disabled and the system will ignore any activity on those input lines. **ENA** means that function will transmit and the panel will respond to input activity on those lines.

If the pushbutton is held down for 8 seconds after power up, it will reinitialize the system and allow any panel to claim ownership of it, during a LEARN sequence.

The **LED** will flash briefly during data transmissions and glow solid when the ALARM is active.

The **RELAY**s both operate together (as of rev 1.00) when an ALARM condition is transmitted. When the panel releases the ALARM, the RELAYS will deactivate.

The **mini-USB plug** is for factory use only. The customer should not use this port, it is for configuration purposes only.

USB does not require external power supply connection for menus and changes, however relays and IN+ and IN- functions will not operate.

ALL inputs have a 4 second glitch filter to prevent spurious signals from inadvertently tripping the circuitry. Also this delay keeps the Control Panel and LDS from getting confused while packets are being transmitted to and fro. This glitch filter filter works on both activation and deactivation of the connected function. The USB plug will also delay about 4 seconds before connecting to the computer device manager.

At startup, the LED will flash for a few seconds to allow the glitch filter to process all of the inputs before starting normal readings.