0-+10V Infrared Remote Control Interface

Application

The EVO/™10Y-IRC Infrared Remote Control interface provides a means to turn on a remote device and adjust a 0-+10V control signal. A broad array of parameters may be remotely adjusted by integrating the IRC interface with devices accepting this standard control signal.

Common applications:

Temperature	**Humidity**
Position	**Audio**
Light Level	**RPM**
Ventilation	

The EVO/™IRC-Remote sends modulated infrared signals to an infrared sensor on the EVO/™10Y-IRC interface board. The interface board may be mounted on or near the equipment. The user sets the interface to output a percent of the +10V signal in 1% (+0.1V) steps. A green signal lamp flashes out a number between 1 and 100, indicating the percent output.

The green signal lamp and infrared sensor are mounted next to each other. They may be mounted on the interface board, or on the end of a remote infrared sensor cable, accommodating a wide variety of equipment configurations.

The EVO/™IRC-Remote allows the user to turn the equipment on or off. When on, a red power lamp illuminates and +24V is output from the On/Off terminal to energize the controlled device.

Ordering

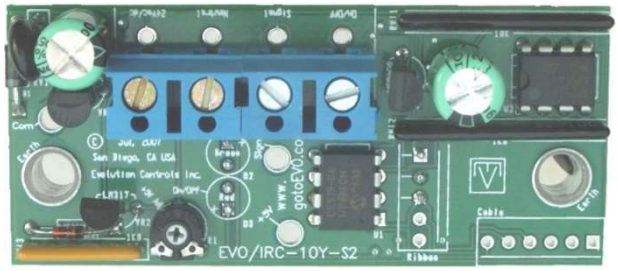
Infrared Remote Interface EVO/™IRC -10Y_ _ _

Add an "-en" suffix for the remote lamps/IR infrared sensor. (Also order a remote sensor assembly).

Add a "-C" suffix for the contractor version (terminal strip).

Add a “-D” suffix for supply voltage less than +20V

Note: This model number is being changed to EVO/™10Y-IRC

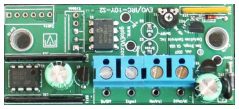


Specifications

Power	NEC Class II Only 24 Vac ± 20% 50/60 Hz Or +18V to +30V
Outputs	Signal 0 to +10V @10mA On/Off +24V @ 50mA …*does not exceed DC power supply voltage.*
Accuracy	±0.03% of setting
Operating Environment	(18°C to 55°C)*M* (0°F to 130°F)*I* 10%-80% rh

Power Connections:

Contractor Version (-C)	Screw Termination
OEM Version	¼” Tabs



EVO/IRC-Remote EVO/IRC-Sensor

Operation

Point the EVO/IRC-Remote at the infrared sensor on the equipment. Operate the On/Off button or any of the four ↑/↓ (up/down) buttons. The green signal lamp lights, indicating you are in an adjustment session. Continue to operate the on/off button or any of the four ↑/↓ buttons to achieve the desired settings. Press the Enter button to save your new settings and exit the adjustment session. Press the Clear button to delete your new settings, revert to the original settings and exit the adjustment session. If you enter an adjustment session and do not make any adjustments for 15 minutes, the adjustment session automatically clears.

Use the Clear button to read the current settings. Point the EVO/IRC-Remote at the infrared sensor and press the Clear button.

The green signal lamp begins to flash indicating the signal was received. The flash sequence indicates the current 0-+10V signal. The sequence occurs in two sets. The 1st set uses long flashes to indicate the ten's digit. The 2nd set uses short flashes to indicate the unit's digit.

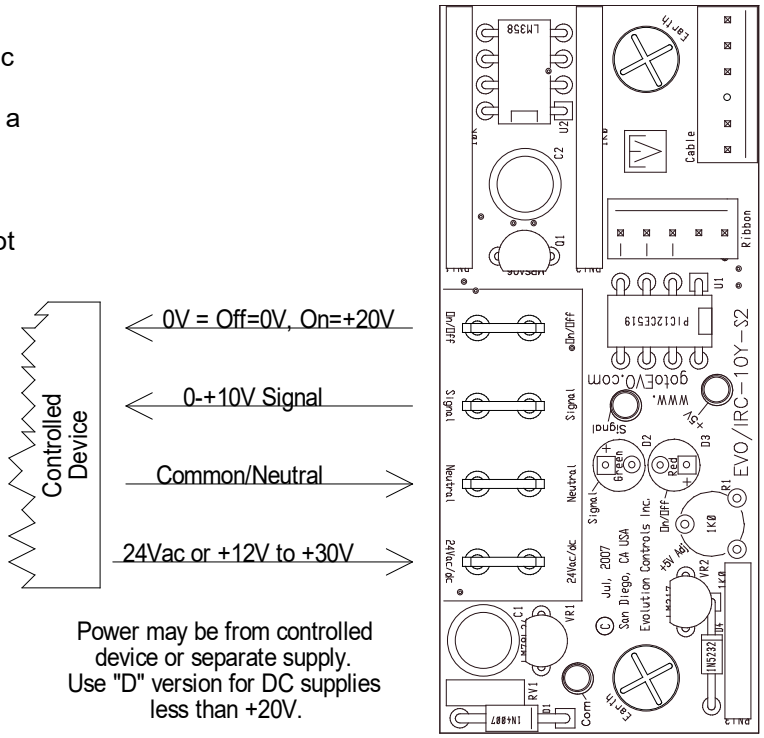
An extra long flash in the 1st or 2nd set indicates the value of the corresponding digit is zero.

Use the On/Off button to turn the equipment on or off. Point the handheld at the infrared and press the on/off button. If you press Enter while the equipment is off, the equipment stays off, even through a power on/off cycle.

Adjust the 0-+10V signal using the ↑/↓ buttons. The ↑/↓ button pair on the left adjusts the signal ↑/↓ 10% (+1.0V). The ↑/↓ button pair on the right adjusts the signal ↑/↓ 1% (+0.1V). Using the ↑/↓ x10 pair, you can quickly move the signal up and down. Using the ↑/↓ x1 pair, you can set the signal to within 0.1V of the desired voltage. During an adjustment session, the green signal lamp blinks each time you make a valid entry. If the signal is already 100%, and you try to increase the signal, the green signal lamp does not blink, and the increase does not occur. If the signal is greater than 90% and you press the ↑10 button, the green signal lamp does not blink and the increase does not occur because your entry would take the signal above 100%. When the signal is greater than 90%, use the ↑1 button to increase the voltage. The ↓1 and ↓10 keys respond in a like manner when you try to set the signal below 0V.

Wiring

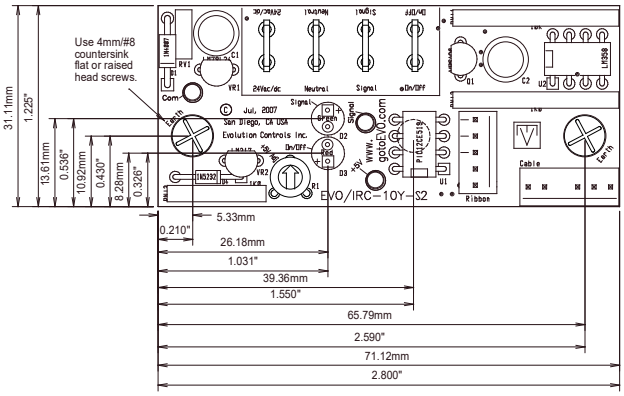
Power the EVO/™10Y-IRC interface with a 24Vac NEC Class II power source. Observe all code requirements regarding Class II circuits to insure a safe, reliable installation. Connect the neutral connection to the grounded side of the 24Vac Class II power source as required by code. Connect the 24Vac 50/60Hz connection to the hot side of the 24Vac Class II power source. The power supply, signal and On/Off share the same common.

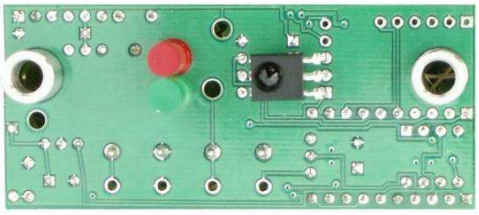


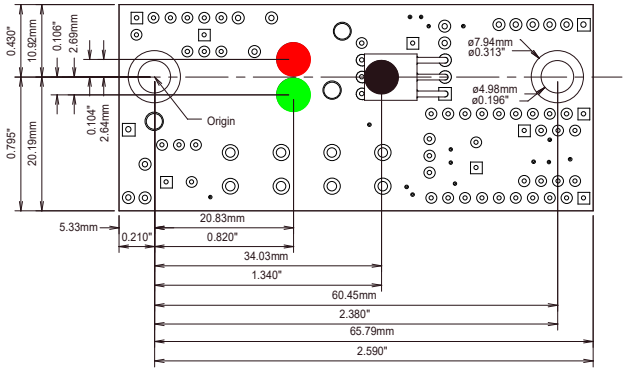
Mounting

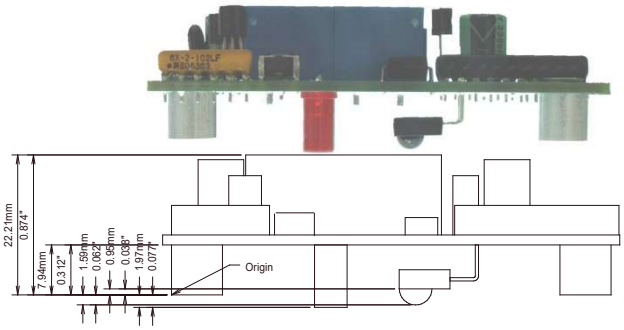
Mount the interface board inside a metal junction box, control cabinet or enclosure. Earth the box to minimize possible electromagnetic interference. Make mounting, lamp and IR infrared sensor holes through the cover or enclosure wall and mount the interface board to the inside. A (USA) standard electrical switch plate may be used as a mounting plate, or mounting template.

Mount the interface board with clearance for the power wires and control signal wiring. Remote mount the interface board in a single gang electrical switch-box. Use a standard switch cover to cover the unit.



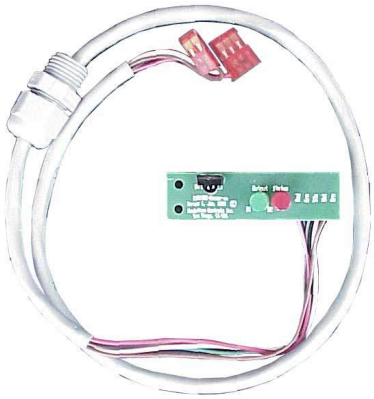






Remote Sensor Option

EVO/™10Y-IRC-en-C



EVO/™IRC-Sensor

See EVO/™IRC Accessories Datasheet