INTEGRALERT

ESI-844

Web-to-Wireless Monitoring System

- Monitor and Control Equipment Anywhere From the Integralert Web Site
- Dual Mode (Analog/Digital) Cellular Communication Without A Local Cellular Account
- Receive Voice or E-Mail Message Within Seconds
- 120Vac Power Source
- (8) Dry Contact Digital Inputs
- (4) Selectable 4-20ma or 0-10V Analog Inputs
- (4) 250Vac/8 Amp Relay Outputs

GENERAL DESCRIPTION

The ESI-844 is a web-to-wireless remote monitor and control system. Its internal cellular modem provides 2-way communications to the automated Network Operation Center (NOC) and the www.integralert.com web site. Dual mode (analog/digital) cellular communication provides wide coverage throughout North America with no requirement for local cellular account.

The ESI-844 comes assembled in a NEMA 4X fiberglass enclosure which is easily installed inside an existing enclosure or outside.

The inputs and outputs are suitable for a wide range of direct connect monitoring and control applications. The ESI-844 can monitor up to (8) digital inputs, (4) analog inputs and (4) control relay outputs. The analog inputs and control relay outputs are standard.

Basic Operation

Operation is simple.
1.) Connect the ESI-844 to switches, sensors and other devices to be monitored and controlled. Apply power.
2.) The ESI-844 will automatically establish 2-way communications over the cellular network to the www.integralert.com web site.
3.) Log onto your private secure web page to:

- View the last reported status of your equipment – switch positions, on/off status, tank levels, temperature, pressure, flow rate, number of pulses received
- Send a remote control command or request an up-to-date report from the unit
- Configure selected alarms or events to trigger an immediate user notification
- Configure time/date scheduled command sequences

Digital Inputs

The ESI-844 is equipped with (8) configurable dry contact digital inputs. All inputs are opto-isolated and protected with surge suppression circuitry per ANSI C37.90.1-2002 to minimize the effects of external transient voltages. In the standard system, the Inputs are defined as follows:

- All inputs monitor a digital dry contact and reports state changes.
- Inputs 1 through 4 can be configured as a counter/timer
- Counters can count up to 5 digits 00000-99999
- Timers reported as ‘mmmm.ss’ where ‘m’ is minutes and ‘s’ is seconds

Analog Inputs

Additionally, the ESI-844 is equipped with (4) configurable analog inputs designed to monitor 4-20mA or 0-10Vdc signals

- Protected with surge suppression per ANSI C37.90.1
- Programmable set points and trigger time for each input
- Offsets and scalars available on the web server to convert the raw values into meaningful values (temperature, tank level, pressure, etc.)

Relay Outputs

Optionally, the ESI-844 is equipped with (4) Form "C" mechanical relays.

- Capable of switching 250Vac/30Vdc at 8 Amps
- Remote control commands from the web server can set steady state ON or OFF, or can initiate a temporary (1 sec to 160 hrs) open or closed condition

Power Supply & Battery Backup

The standard ESI-844 system operates by 120Vac power source. Optionally, the system can be powered by 15Vdc for battery powered systems or 12Vdc for solar power applications. Regardless if powered by 120Vac or 15Vdc, the ESI-800 will:

- Continually charge a 12Vdc backup battery up to 5 A·Hr while AC power is present
- Monitor loss of power and send a power outage report to the NOC

Low Power Mode

The ESI-844 system can be configured for a low power mode to conserve power. In this mode, the radio is always powered off except to send reports to the NOC. This mode is limited to monitoring the sending reports only. It is ideal for solar powered applications.

Daily Reports Limits

To reduce the number of event based reports sent to the NOC resulting from over-active inputs or power cycling conditions, the system can be configured to limit the number of reports sent per day from 1 to 20. Time scheduled and user requested reports are not limited. Daily limits may be reset from the NOC.

Web Server

The central web server records and displays all incoming status reports. Depending on the report options, the user is notified by e-mail, text message or telephone (using a text-to-speech voice message) of the event.

After entering a unique user Id and password the user may:

- View latest and historical data
- Request current status reports
- Send control commands
- Export data to spreadsheet
- Customize data field labels, scaling factors, and units of measure
- Create notification contact lists
- Configure user notification messages
- Configure time scheduled reports

Users can also dial a toll-free number to hear the current status report of their equipment from any telephone in North America.

Reporting Options

Reports are triggered for three reasons: 1) a specified alarm condition occurs, 2) a time scheduled report is due, or 3) a status report requested from the web site.

Typical alarm conditions are:

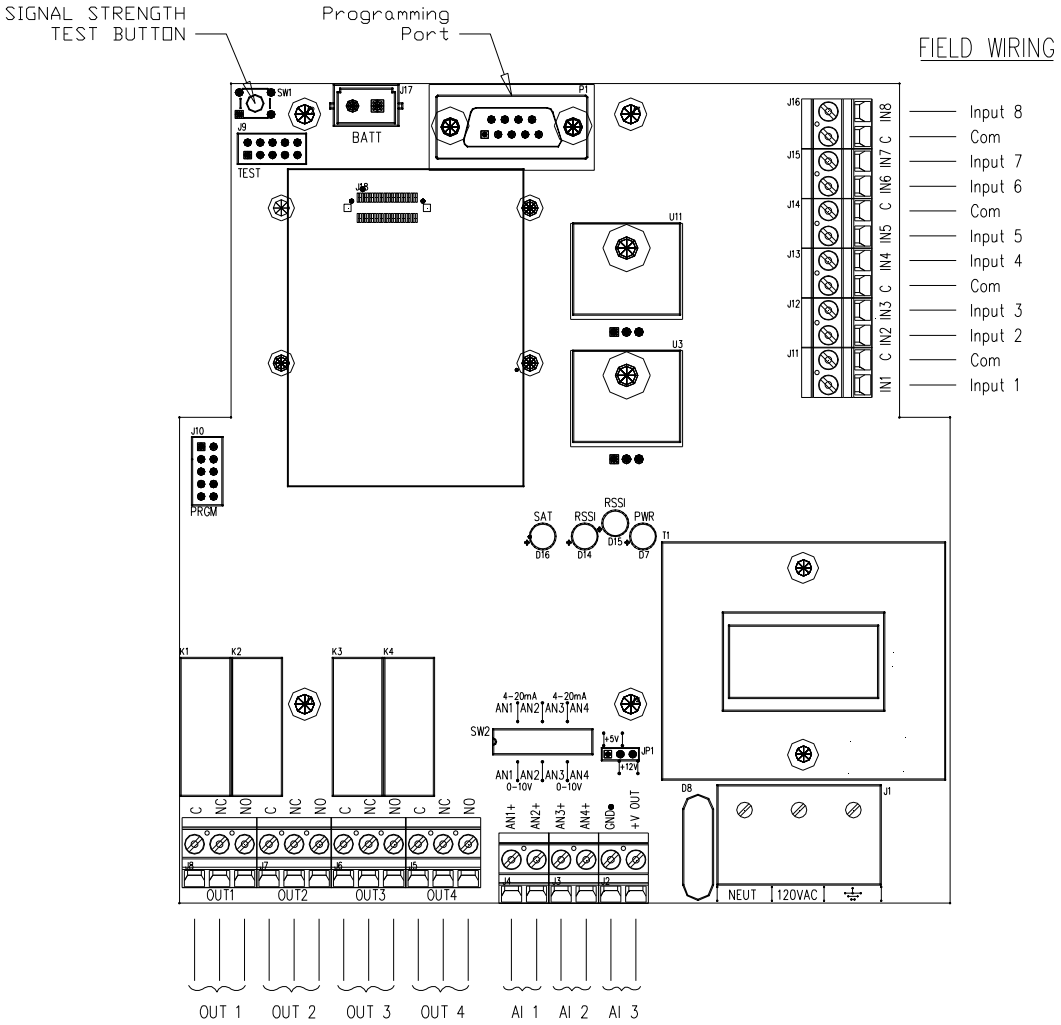
- Digital state change
- Analog limit value reached
- Power outage
- or Missing System (loss of communication)

Time scheduled reports can be set for a predefined frequency anywhere from once every hour to once every 240 hours (10 days).

Reports can be requested at any time from the web site.

Hardware Specifications

- Input Power 120Vac +/- 10% 0.5A max
- (8) Digital Dry Contact Inputs
- (4) Selectable 4-20mA or 0-10Vdc Analog Inputs
- (4) Form "C" Output Control Relays, 250Vac @ 8Amp
- Fiberglass enclosure (NEMA 4X)
- Operating Temperature (-22 to 140 ºF) or (-30 to 60 ºC)
- Relative Humidity (5 – 95%) non-condensing
- Supports Amps 800MHz, Digital CDMA 800MHz, and CDMA PCS 1900MHz
- Battery backup 12Vdc Sealed Lead Acid (SLA), 0.8 A·Hr
- 1 Year Limited Warranty



Ordering Information:

ESI-8xx Part Number Description						
Complete Order Code						
ESI-8	xx	-10	-20	-30	-40	
xx	I/O Options					
	00	(8) Digital Inputs				
	04	(8) Digital Inputs, (4) Control Relay Output (Form C), 250Vac @ 8Amp				
	40	(8) Digital Inputs, (4) Analog Inputs (4-20mA/0-10V)				
	44	(8) Digital Inputs, (4) Analog Inputs (4-20mA/0-10V), (4) Control Relay Output (Form C)				
10	Enclosure Options					
		PC	Fiberglass (NEMA 4X)			
20	Radio Options					
			01	Analog/Digital Dual Mode CDMA Cellular		
			02	GSM/GPRS/EDGE Cellular		
			03	Satellite		
30	Digital Input Options					
				01	Dry contact	
40	Power Supply Options					
					AC120	120Vac, 60Hz
					DC12	12Vdc (without Backup Battery)
					DC15	15Vdc
Example Order Code - ESI-844-PC-01-01-AC120						
ESI-8	44	PC	01	01	AC120	Remote Monitoring System Fiberglass Enclosure, Cellular, CDMA, (8)-Dry contact Inputs, (4)-Analog Input (4-20mA/0-10V), (4)-Control Relay Output (Form C, 250Vac @ 8Amp), 2.5dBi Gain Internal Antenna, 120/240/480Vac Input Power

NOTE: Preliminary Specifications and Subject to Change