

i-Sense® Voltage Monitor

Features and Benefits

Diagnose Downtime Quickly

- Power quality issues are a frequent cause of downtime and are difficult to diagnose without monitoring in place
- Instant notification via text or email when an event occurs

Cost-effective, Permanent Monitoring Solution

- Permanent monitoring is more effective than temporary solutions at diagnosing random power quality events

Easy-to-use Web-based Application

- Access complete event information and history from any internet-connected browser
- No software to install, configure or maintain

Voltage Event Tracking

- Documents the most common source of disruptive dirty power events in utility feeds

Multiple Configurations Within Single Unit

- 26 voltages between 100-480VAC
- Modem or Ethernet connectivity
- 50/60 Hz Auto-sensing

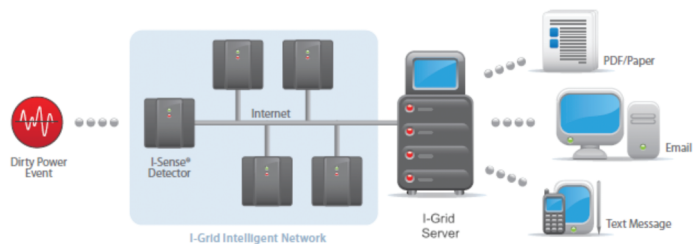
i-Grid enables you to quickly understand the impact of power quality events on your facility and determine mitigation strategies.



You Sense There Is a Problem. Now You Can See It.

Voltage sags are responsible for a significant amount of unplanned downtime. i-Sense technology provides the vital data that pinpoints voltage-based power events, reveals the relationship between voltage sags and downtime situations, and gives you the certainty of knowing the cause, so you can take fast, appropriate and targeted action to get your operations up and running with minimal MTTR (mean time to repair).

i-Sense is cost-effective, easy to use, easy to install and virtually maintenance-free. Once installed, the i-Sense transmits your incoming power quality event data to our i-Grid® servers via an Ethernet or modem connection. The event data is collected, analyzed and sent to subscribers in the form of event notifications – giving you the ability to view detailed power quality event data and reports anytime, anywhere, using any computer with an Internet connection, or even a cell phone.



i-Grid Intelligent Network

Voltage events captured by the i-Sense are transmitted to the i-Grid, where valuable power data is collected, analyzed, correlated and distributed back to i-Grid subscribers – all within minutes.

Specifications

Nominal Voltage	100V–480V, user-selectable
Frequency	45–65 Hz, auto-sensing
Measurement inputs	1 to 3 channels (3-channel models) Dual 1 to 3 channels – simultaneous input/output capture (6-channel models)
Sample rate	5,760 samples/second
RMS voltage measurement accuracy	True RMS; $\pm 0.2\%$ typical, $\pm 2\%$ maximum of full scale
Time synchronization	Real-time clock synchronized to UTC (NIST standard) daily via i-Grid and SNTP ± 0.1 seconds, typical
Event trigger	Voltage deviation of $\frac{1}{2}$ -cycle RMS voltage $\leq 87\%$ or $\geq 115\%$ of set nominal Adaptive waveform deviation detection of transient events
Event detail	8 cycles waveform data (-1 to +3 cycles at event start and -3 to +1 cycles at event end) Continuous RMS voltage trend, up to 2 minutes
Data storage	Local non-volatile storage cache for > 300 events, cleared after automatic upload to i-Grid Virtually unlimited permanent event storage in i-Grid database
Periodic RMS data logging	Minimum, maximum and average RMS voltage recorded for each 10-minute period Minimum and maximum are the lowest and highest sliding $\frac{1}{2}$ -cycle RMS in the period
Power supply and battery backup	Line-powered from channel 1 (L1-L2 or L1-N), < 25VA load User supplied 9V DC external power supply (not provided, for configuration only) Rechargeable batteries enable measurement & communication during power interruptions for up to 2 minutes
i-Grid communication	Over the Internet via HTTP protocol (standard port 80); outgoing connection only
Ethernet	IEEE 802.3 10 Base-T (10 Mb/s), 8P8C (RJ45) modular connector
Modem	PSTN (analog telephone), RJ11 modular connector Most global phone systems supported
Indicators	Red and green front-panel LEDs
i-Sense Management Console	On-board web server for configuration and status, password protected
Enclosure	NEMA 1 (IP20); Indoor use only. Only non-conducting pollution (pollution degree II) Dimensions: 11.4" H x 9.7" W x 3.0" D/291 mm H x 247 mm W x 75 mm D
Weight	8.5 lb/3.6 kg
Agency approvals	cTUVus, CE, RoHS

Catalog Numbers

1608S-3V480K 3-Channel i-Sense

1608S-6V480K 6-Channel i-Sense

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www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846