



Aclara Medium Voltage (MV) Sensors

North America's #1 Selling Smart Grid Line Sensor



FEATURES

- Accurate three-phase load monitoring
- Real-Time fault detection and location (GPS)
- Substation monitoring
- Inductively powered (no batteries)
- Flexible communications (Wi-Fi, CDMA, GSM/GPRS), 4G LTE
- Bundled 3-year cellular data option
- Low current operations
- Only sensor with Auto-phase ID
- Remotely upgradeable
- Waveform capture

BENEFITS

- Load Current, Fault Current
- Momentaries, Line Disturbances
- Electric Field Strength*
- Power Factor, Phase Angle*
- Sags, Surges*

Aclara sensors provide best-in-class accuracy in distribution monitoring with the real-time actionable intelligence you need to monitor loads, protect assets and improve reliability.

NO BATTERIES, NO CALIBRATION, DEPLOYABLE IN MINUTES

Our Aclara sensors were designed as an accurate, turnkey solution that is hot-stick deployable in minutes. They are inductively powered to eliminate the costs of battery replacements and require no calibration. They are software-defined and over-the-air upgradeable to eliminate maintenance costs. Compared to alternative technologies, Aclara offers the most functionality at lowest total cost of ownership.

FLEXIBLE, UBIQUITOUS COMMUNICATIONS OPTIONS

Aclara sensors support a wide range of communication options. Our cellular sensors include 3G or 4G LTE communications for high speed reporting of events and data. Our Wi-Fi sensors support easy integration with public and private IP-based networks via Aclara Aggregators or third party communications nodes. All sensors are quickly installed, automatically power up, and connect to your preferred network to seamlessly send data to your back office applications or our hosted data center.

THE MOST ACCURATE SENSOR SOLUTION FOR YOUR DISTRIBUTION GRID

Aclara is the only solution with SMS – a configurable Sensor Management System with Predictive Grid® Analytics that takes sensor data through four layers of analysis to improve accuracy and effectiveness. In head-to-head field trials, Fault Current Indicators (FCIs) generated four false alarms to every true outage event confirmed by Aclara. By reducing false alarms, Aclara can be trusted to dispatch crews and provide only accurate data to your Historians, SCADA or Distribution Management Systems seamlessly through our DNP3 interface.

LOW CURRENT OPERATIONS OFFER WIDEST NETWORK COVERAGE

Our proprietary technology enables sensors to operate all the way down to 3 amps, without the use of a battery, to offer the widest coverage of any sensor in its class. Now you can deploy sensors from your substations all the way out to your low current laterals to troubleshoot faults and better pinpoint outages.

THE ONLY SENSOR THAT ACCURATELY IDENTIFIES PHASES ACROSS YOUR FEEDERS AND LATERALS

The operation and maintenance of a distribution network is becoming more complex, thus accurate, real-time data such as the identification of individual phases is becoming more critical. Only Aclara offers Auto-Phase ID so you can have accurate phase identification throughout your feeders and single-phase laterals. Our sensors track and report the proper phase of each sensor to resolve inaccuracies and maintain up-to-date, accurate network and load models.

*Included in MV sensor models with E-Field

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LINE VOLTAGE

- Up to 69 KV phase to phase⁽¹⁾

CONDUCTOR SIZE

- #6 AWG to 795 AAC (approx. 0.162 – 1.026 " in diameter, or 13.3 - 402 mm² cross sectional area)

DIMENSIONS (HXWXL)

- Case: 4.5 x 4.25 x 11 in. (114 x 108 x 279 mm)
- Antenna Height: 5" (Wi-Fi), 8" (3G cellular), 9.4" (4G LTE cellular)

WEIGHT

- 3 kg (6 lbs)

OPERATING TEMPERATURE

- - 40°C to +60°C (- 40°F to +140°F).
- Complies with IEEE 495 Temperature Cycling Test

STORAGE TEMPERATURE

- - 40°C to +85°C (- 40°F to 185°F)

CASING

- UV stabilized polycarbonate, rain and wind restraint
- IP65

POWER OPTIONS

- Powered inductively upon installation
- Maintenance free super capacitors (no battery)
- Models operate down to 3A or 6A line current

CONFIGURATION AND MANAGEMENT

- Aclara SMS software for configuration, monitoring and remote firmware upgrade

COMMUNICATION OPTIONS

- Integrated 802.11 b/g Wi-Fi, 2.4 GHz, WPA2-PSK
 - Interoperable with third party Wi-Fi nodes
- Integrated 3G CDMA cellular, with or without bundled cellular data service
- Integrated 3G quad-band GSM/GPRS/EDGE/HSDPA
 - UMTS: 900/2100 MHz
 - UMTS: 850/1900 MHz
 - UMTS: 850/2100 MHz
- Integrated 4G LTE cellular, certified for use with Verizon Wireless

VISUAL INDICATION

- Single red LED indicating communication and diagnostic status

CURRENT RANGES

- Operating current: 3 to 600 RMS amp
- Fault current: Up to 17 kA, report peak or RMS

WAVEFORM CAPTURE

- On-demand: current, E-Field⁽²⁾
- Fault event: current, E-Field⁽²⁾
- COMTRADE export via SMS

HIGH CURRENT ALARM

- Configurable limit and duration

DEMAND READ

- Via SMS user interface or DNP3

⁽¹⁾ Models go to either 46 KV or 69 KV phase-to-phase

⁽²⁾ Included in MV sensor models with E-Field