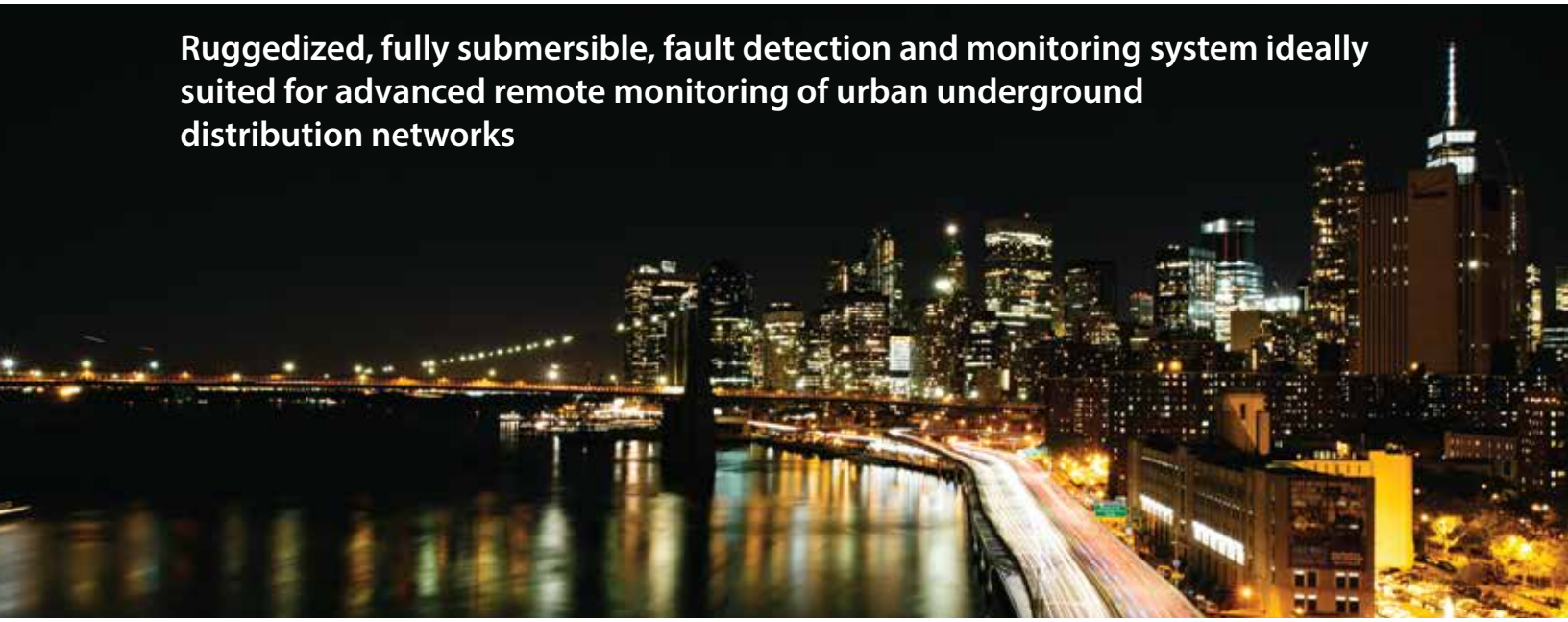
LINDSEY CityView™

Remote Underground Fault Indication System



Ruggedized, fully submersible, fault detection and monitoring system ideally suited for advanced remote monitoring of urban underground distribution networks

Specifically designed for underground vaults, the CityView underground fault indication system consists of Lindsey's Athena faulted circuit detector combined with Lindsey underground voltage and current sensors. The Athena fault detector is a submersible, self-powered, and wireless sensing solution that detects high current faults while providing a full suite of measurements and indications, including rms power, and total harmonic distortion (THD). Lindsey voltage and current sensors provide high accuracy voltage and current measurements contained in familiar 200A and 600A componentry. CityView is a complete turn-key wireless sensing solution that installs in minutes and requires no secondary power or PT installation, and no planned outage for setup.

ATHENA Faulted Circuit Detector

The Athena faulted circuit detector is designed specifically for the rigors of underground and vault installation while providing the advanced fault detection and monitoring needs of utilities.

- Highly ruggedized, reliable and submersible design for underground environments
- Peak-based fast fault detection algorithm with definite time characteristic
- Self-powered with power harvesting operation
- High measurement accuracy and advanced power quality analysis
- Single and three-phase configurations
- Communication agnostic and over-the-air programmable
- Voltage and current sensor agnostic
- Native DNP3 output from device
- Easy Installation and setup

LINDSEY

Lindsey Elbowsense™ Underground Sensors

Perfectly paired with the Athena fault indicator, Lindsey Sensors provide exceptionally reliable and highly accurate (1%) voltage and current monitoring for pad-mount and submersible underground distribution applications.

Zero phase shift, wide frequency response and superb harmonic performance make Lindsey sensors suited for distribution automation applications.

- Stainless steel housing-based Lindsey 600A voltage sensor plugs
- Lindsey 200A elbow and T-body separable connector voltage sensors
- Split-core and ring type slip-on current sensors

200A Elbow
Voltage Sensor

600A Slip-On
Current Sensor

600A Elbow
Voltage Sensor Plug

ATHENA Faulted Ciruit Detector Specifications

Measurements	
Current	A, B and C phase
Voltage	A, B and C phase
RMS Power	Real, Reactive, Apparent, Phase Angle, Line Frequency
Harmonics	Harmonics 2nd through 7th plus THD for all voltage and current channels, 1 – 7th
Event Logging	Timestamping of all alarms, events and measurements
Faults, Events and Alarms	
Phase overcurrent (50)	Time delay 10 – 1000msec
Neutral overcurrent (50N)	Time delay 10 – 1000msec
Events and Alarms	Timestamped fault magnitude, fault duration, fault inception time, loss and restoration of line voltage
Waveform capture	10 cycles (1200Hz sample rate)
Hardware and Software	
Enclosure	• Non-conductive, high temperature, Polycarbonate NEMA 6, IP 68; Fully configurable • Connector shells with knurled edges usable with 12KV gloves • 9" x 9" x 6" (230mm x 230mm x 150mm)
Mounting	Anchor brackets or non-destructive magnet mount
Current withstand	30kA
Operating temperature	-40C to +80C
Power	Self-powered via split core power harvesting CT (included). Internal, rechargeable sealed 5 Amp-Hour battery
External Sensor Compatibility	Load sensor agnostic (CTs, PTs, Lindsey sensors, Rogowski coils, etc.)
Communications	Communication agnostic. Accepts various communication networks including 3/4G cellular, SSN, Satellite, NIC, etc.
External indicators	Technician status indicator LED and optional LCD display for metrology and status
Firmware	Supports over-the-air/wireless firmware updates
Protocol	DNP 3.0 native. Other protocols available

Lindsey Manufacturing
760 North Georgia Avenue
Azusa California 91702 USA
Tel 626-969-3471
www.lindsey-usa.com
Publication Number 09F-012 CITYVIEW • March 2016

LINDSEY

Touching High Voltage Every Day