



LineWatch L

Distribution Grid Sensing and Monitoring for Low Voltage Applications

Power performance monitoring for overhead and underground low voltage applications

LineWatch L is a near revenue-grade electric power distribution grid sensing and monitoring system designed for low-voltage applications. Its robust and versatile design allows installation in both overhead and underground locations and supports any communications network.

Market applications:

Grid Automation

Enables remote monitoring and operation of grid infrastructure for more efficient, automated management—reducing operational costs.

Voltage and Power Measurements

Improves distribution grid efficiency by monitoring voltage, current, real, and reactive power.

Fault Detection and Outage Management

Provides a voltage-based solution for high-precision fault detection and location.

Asset Management

Monitors assets to improve capital allocation and overall asset management.

Theft Detection/Anomalous Usage

Detects, reduces, and helps eliminate power theft using sensor technology as an energy-balancing tool—identifying losses, interruptions, and abnormal usage.

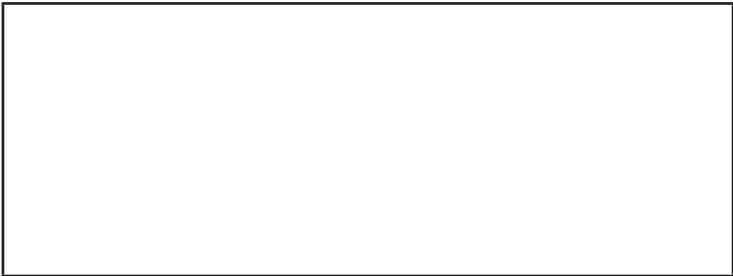
Green Energy/Renewables Integration

Supports distributed generation interconnection, permitting, and ongoing monitoring.

FEATURES/BENEFITS

- Delivers near revenue-grade ($\pm 0.5\%$) current and voltage accuracy
- User configurable alarms/events
- Enables remote monitoring of grid infrastructure
- Integrated reporting tools
- Data storage up to 30 days
- Browser based user interface
- Provides grid intelligence to reduce operating and maintenance costs while improving grid stability
- Simple installation: clamp fits a wide range of conductors and bus bars
- Integrated voltage and current sensors

| Technical Specifications | | | |
|--|--|--------------------------|--|
| Sensing System Capabilities | | | |
| Available Configurations | Single Phase 3 Wire or Three Phase 4 Wire | Reporting Interval | 60 seconds |
| Electrical Frequency | 50 and 60 Hz | Rated Current | 1200 Arms |
| Rated Voltage | 120V (line-to-neutral) / 208V (line-to-line) to 347V (line-to-neutral) / 600V (line-to-line) | Maximum Current | 1400 Arms |
| Voltage Accuracy | ± 0.5% | Current Accuracy | ± 0.5% |
| Power & Energy Accuracy | ± 1% | Power Quality | Computes amplitude of voltage/current up to the 13th harmonic; total harmonic distortion |
| Power Factor Accuracy | ± 24 arc minutes | Data Storage | 30 days of data; downloadable CSV or .XLSX file |
| Fault Detection | Waveform capture of faulted voltage, 4 cycles before fault, 28 after event | | |
| LineWatch L tested to ANSI C12.20 Standard | | | |
| Physical and Environmental | | | |
| Weight | 11.5 lbs. | Enclosure Dimensions | 10"W x 14"H x 5"D |
| Operating Temperature | -40°C to 50°C | Storage Temperature | -40°C to 85°C |
| Humidity | 0 - 95% RH | NEMA Rating | 4X; 6 available upon request |
| Pad Mounted Transformer Bus Bar Dimensions | Thickness: Minimum of 0.25" / Maximum of 0.75" Width At Neck: Maximum of 2" Bushing Diameter: Maximum of 2.75" | Conductor Dimensions | Maximum conductor diameter of 1.625 inches Minimum conductor diameter of 0.375 inches |
| Communications and Security | | | |
| Communication Options | Wired Ethernet Port | System Logs | 30 days of storage of 1 minute intervals of measurement, system and status data |
| | WiFi 802.11 b/g/n | DNP3 Communications | DNP3 Level 4+ Subset Definitions |
| | Cellular Modem Communications Supports 4G LTE Networks and CDMA/GSM | Communications Protocols | On demand reporting to a central monitoring or SCADA system compatible via DNP3 |
| | WiMAX | | Support also includes TCP / IPv4, TCP / IPv6, UDP / IPv4, UDP / IPv6 |
| | Serial Port for NIC integration | | |
| | Cisco "Connected Grid" IEEE 802.15.4g Mesh Network with IPv6 | LED Indicators | External visual indication of system health and phase outages |





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