



# LineWatch<sup>®</sup> L

For Low Voltage Applications

LineWatch L provides real-time, near revenue-grade electric power distribution grid sensing and monitoring system for low voltage applications. Its robust and versatile design allows for installation in both overhead and underground locations and can support any communications network.

## Market applications include:

**Grid Automation:** Remote monitoring and operation of utility infrastructure for more efficient grid management

**Voltage and Power Measurements:** Voltage, current, real and reactive power monitoring improves grid efficiency

**Fault Detection and Outage Management:** Identifies location of faults for quicker power restoration

**Asset Management:** Asset monitoring for improved management and allocation of capital

**Theft Detection/Anomalous Usage:** Energy balancing to identify, reduce and eliminate power theft

**Green Energy/Renewables Integration:** Distributed generation interconnection permitting and ongoing monitoring

## Key Features and Benefits

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Delivers near revenue-grade (0.5%) current and voltage accuracy

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User configurable alarms/events

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Integrated reporting tools

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Data storage up to 30 days

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Browser based user interface

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Simple installation; clamps fit a wide variety of conductors and bus bars

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Integrated voltage and current sensors

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Supports any utility communications platform

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Improves grid awareness for better operational efficiencies

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Enables fault detection and location

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Facilitates energy balancing to identify and reduce power theft

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Reduces service interruptions

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### Sensing System Capabilities

Available Configurations	Single Phase 3 Wire or Three Phase 4 Wire
Electrical Frequency	50 and 60 Hz
Rated Voltage	120V (line-to-neutral) / 208V (line-to-line) to 347V (line-to-neutral) / 600V (line-to-line)
Voltage Accuracy	± 0.5%
Power & Energy Accuracy	± 1%
Power Factor Accuracy	± 24 arc minutes
Fault Detection	Waveform capture of faulted voltage, 4 cycles pre-fault, 28 cycles post-event start
Reporting Interval	60 seconds
Rated Current	1200 Arms
Maximum Current	1400 Arms
Current Accuracy	± 0.5%
Power Quality	Computes amplitude of voltage/current up to the 13th harmonic; total harmonic distortion
Sampling Rate	4kHz
Data Storage	30 days of data; downloadable CSV or .XLSX file

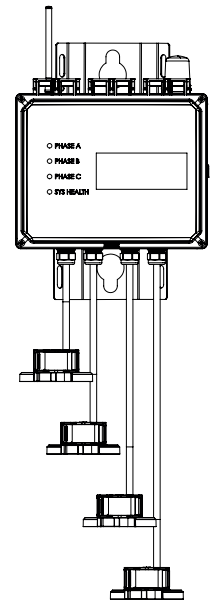
### LineWatch L tested to ANSI C12.20 Standard

### Physical and Environmental

Weight	11.5 lbs.
Operating Temperature	-40°C to 50°C
Humidity	0 - 100% RH
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"
Enclosure Dimensions	10" x 14" x 5" (W x H x D)
Storage Temperature	-40°C to 85°C
NEMA Rating	4X
Conductor Dimension	Maximum conductor diameter of 1.625 inches Minimum conductor diameter of 0.375 inches

### Communications and Security

Communication Options	Wired Ethernet Port WiFi 802.11 b/g/n Cellular Modem Communications Supports 4G LTE Networks and CDMA/GSM WiMAX via Ethernet/Serial Ports Serial Port for NIC integration
System Logs	30 days of storage of 1 minute intervals of measurement, system and status data
DNP3 Communications	DNP3 Level 4+ Subset Definitions
Communications Protocols	On demand reporting to a central monitoring or SCADA system compatible via DNP3 Support also includes TCP/IPv4/v6, UART, HTTP GET
LED Indicators	External visual indication of system health and phase outages



## QINETIQ

### Collaborating with QinetiQ

At QinetiQ we bring organizations and people together to provide innovative solutions to real world problems, creating customer advantage. Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

[www.QinetiQ.com](http://www.QinetiQ.com)

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Document LWLV-20-12

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