



S610 Line Sensor



Connectivity options
RF Mesh Network
Cellular Network

A Power Harvesting Line Sensor for Fault Detection and Overall Resiliency at the Grid Edge.

Overview

Landis+Gyr's line sensors are intelligent grid-edge devices capable of sensing current and conductor temperature characteristics. The sensors work with other distribution automation and smart grid endpoints to monitor and report fault locations, while accurately logging and reporting load data that can be used to predict and prevent outages and help balance circuit loads. The sensor's ability to monitor and detect changes in power flow direction helps improve the safety of line crews while supporting distributed energy resource integration.

Designed to work within the Landis+Gyr RF Mesh network, the S610 immediately puts specific alerts and actionable intelligence at the user's fingertips. The S610 is also available with a cellular option for communicating with line sensors in areas without an existing RF Mesh network in place. Both line sensor options allow over-the-air programming and firmware upgrades through the S610 Device Manager.

Sensing and measurement capabilities include current, conductor temperature and directional powerflow in addition to GPS and a precision clock. Onboard intelligence and processing power enable the device to perform analysis at the point of installation while funneling only the most valuable information and alerts back to the utility over the Gridstream RF network.

Developed for a long, maintenance-free life, the line sensor's power harvesting technology generates all power needed for operation from the magnetic fields surrounding a conductor. A simple installation process via hot stick anywhere along the line, the S610 line sensor requires no pole attachments or secondary power source. This line sensor is a simple and cost effective way to increase distribution grid management and performance for all utilities.

FEATURES & BENEFITS:

Why Landis+Gyr makes a difference.

- Installs in minutes
- Power harvesting, no secondary power source needed
- Integrates with RF Mesh or Cellular networks
- Over-the-air programming and firmware upgrades using the S610 device manager
- Identifies faults on feeders and laterals
- Alerts with location, fault specific information and directional power flow
- Stores data and analyzes locally
- Measures current, directional powerflow, conductor temperature
- Calibrated for NIST traceability
- Secure Bluetooth for local communications
- Comprehensive DNP3 points list

Product Specifications: **S610 Line Sensor**

Specifications

Wireless Communications	Landis+Gyr RF Mesh or Cellular (LTE/4G,3G,2G,GPRS/GSM, CDMA fallback)
Size	8" x 4.5" x 5.5"
Weight	6.5 lbs.
Enclosure	Weather-proof
Industry Compliance	IEEE Std 495(tm) – 2007 FCI, FCC and IC Class B
Environmental	IEC 60529 IP65, Ingress Protection / ASTM G85 – 11, Salt Frog
Human Interface	Local LED fault indicator
Operating System	Secure embedded Linux
Current, Fault Measurement	0 to 800A RMS, up to 10kA peak current; 25kA RMS fault current tolerant
Voltage Sensing/Characteristics	0 to 90kV, measures voltage presence, dips & swells, current direction
GPS	Lat/Long and precision time stamping
Conductor Temp Measurement	-40° F to 300° F (-40° C to 150° C)
Operating Environment	4 – 35kV, 0-800A, -40° F to +185° F (-40C to 85C)
Line Current Minimum	6A (cellular radio) or 10-12A (900MHz mesh radio), sensor & communications at full-power
Conductor Size	0.375" to 1.14" (up to 954 ACSR or AAC), 0.25" with armor rod
Local Communications	Secure Bluetooth
Expected Lifespan	+10 years