

# LGate 50

## RESIDENTIAL SOLAR MONITORING SOLUTION

Locus Energy's LGate 50 is a web-enabled datalogger for monitoring residential solar photovoltaic and thermal systems. It is designed to collect, store and upload a wide array of energy data allowing both system installers and owners to efficiently manage solar assets.



The LGate 50 can be configured to monitor nearly any type of solar energy system. It has a variety of digital and analog inputs enabling direct communication with third-party devices such as inverters and solar hot water controllers/sensors. Additionally, the LGate 50 features two energy meters which measure electric loads as well as non-revenue grade AC solar generation. Performance data is aggregated and uploaded automatically to the Locus Energy Smart Monitoring website which provides custom tools and analytics to all project stakeholders.

### DATA COLLECTION

The LGate measures data from up to 15 third-party devices which is collected via RS232/485 and Modbus RTU protocols. The datalogger's energy meters measure power through feeds from current transformers combined with an inferred voltage reference from its power supply. For thermal systems, there are 6 temperature sensor inputs. All data feeds are stored in non-volatile memory and then uploaded with unique identifiers to provide maximum flexibility as to how the data is presented online.

### NETWORK CONNECTIVITY

The LGate 50 is a plug and play device supporting a multitude of connectivity options. It can communicate over Ethernet, powerline carrier, or cellular networks. Data is transmitted only in outbound sessions over open ports requiring no additional network or firewall configuration. The connection and commissioning process is further simplified by the LGate's LED lights which indicate communication status without installers having to log in or call home.

### ABOUT LOCUS



Locus Energy develops web-based asset management software for renewable energy systems. We provide monitoring, analytics and data services for deployments of solar photovoltaic and solar thermal technology. By leveraging Locus' products, renewable finance companies and integrators can drive down the cost and complexity of energy monitoring while making it much easier to maintain and service an installed client base. Founded in 2007, Locus is based in New York City and serves clientele across the world.

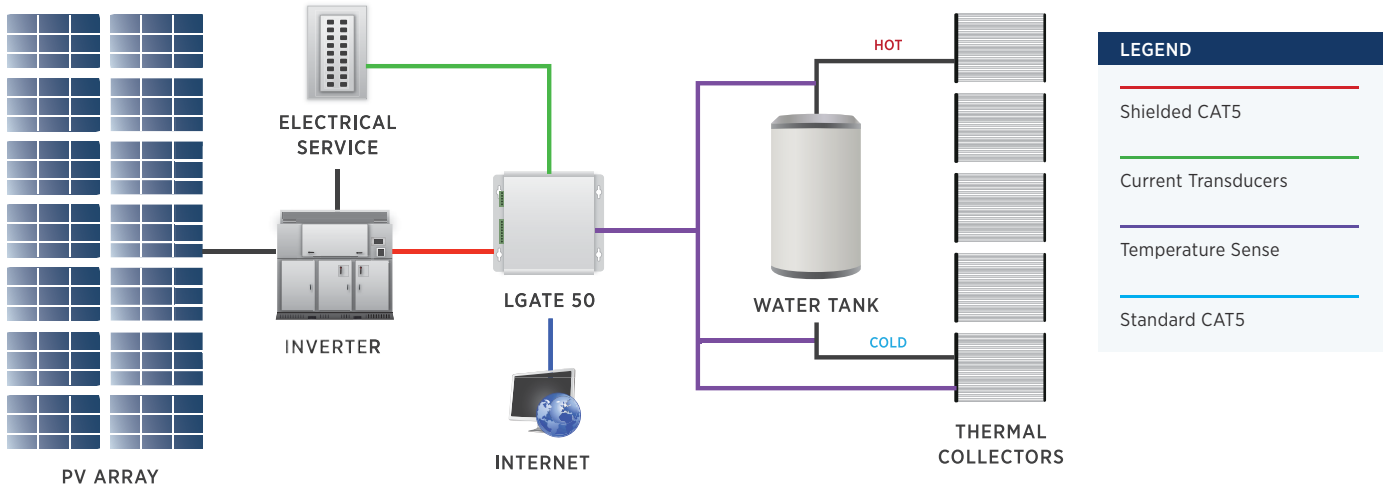
### SOLUTIONS



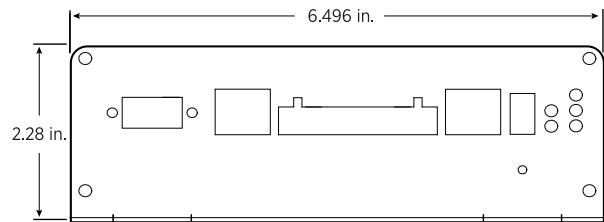
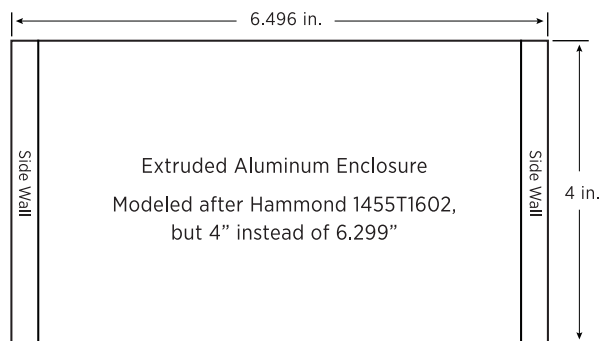
Locus Energy offers Smart Monitoring software services tailored to the following groups to help maximize the performance of renewable assets:

- Installers
- Financiers
- Utilities
- OEMs
- Regulators

## DIAGRAM - TYPICAL CONFIGURATION



## DIMENSIONS



## SPECIFICATIONS

### DATALOGGER

Processor	ARM9 embedded CPU
OS	Custom version of Linux 2.6, OTA firmware updates
Memory	128 MB RAM
Logging interval	1 to 60 minutes, user selectable (default 5 minutes)
Display	USB-based handheld LCD (optional)

### I/O

RS485 2 wire and 4 wire terminals
Modbus
RS232 serial port
USB
KYZ Pulse
4-20 mA analog

### COMMUNICATIONS

LAN	RJ45 10/100 Ethernet, full half duplex, auto polarity
Cellular	GSM/CDMA
WLAN	802.11 a/b/g/n, Zigbee
Networking	DHCP or static IP

### POWER METER

Voltage Inputs	120 VAC
Phases	Single phase, Split phase at 50 or 60 Hz
Current Inputs	mV full scale output CTs, mA output solid/split core CTs

### COMPLIANCE

IEC 61010 (Safety)
FCC 15 Part B

### PHYSICAL

Enclosure	NEMA 3R Type (optional)
Weight	2 lbs 12 oz
Dimensions	6.5" L x 4" W x 2.3" H
Environment	-20 to 60C, 95% RH, non-condensing