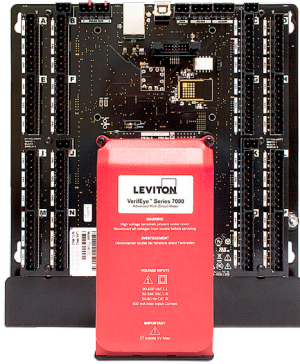


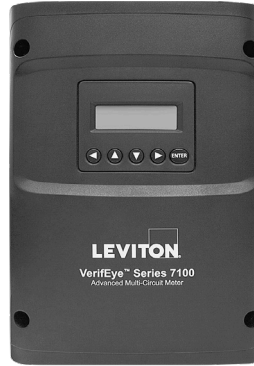
# VeriEye™ Series 7000 and 7100 24 & 48 Circuit Advanced Branch Circuit Monitor



Series 7000 Embedded -  
With Display



Series 7000 Embedded -  
No Display



Series 7100



Split Core CT



Rogowski Coil CT



Solid Core CT

## Description

The VeriEye™ Series 7000 and 7100 48 Circuit Advanced Branch Circuit Monitor is a cost-effective solution for electrical load management. The Series 7000 and 7100 platform is ideal for high density, branch circuit monitoring applications in both new construction and retrofit applications. The Series 7000 and 7100 monitors up to 24 or up to 48 circuits based on the meter. The Series 7000 and 7100 supports all industry standard communications over RS485 and Ethernet, including ModBus RTU, ModBus TCP, BACnet MS/TP and BACnet IP for maximum flexibility. The integrated USB port may be used for local configuration. The Series 7000 and 7100 monitors current, voltage, instantaneous power, demand and energy consumption of each circuit in a panelboard, including the main feed. As a circuit approaches the userconfigured threshold, alarm indicators are triggered, preventing costly downtime from overloaded circuits or failed loads.

## Applications

Use the VeriEye Series 7000 and 7100 Advanced Branch Circuit Monitor in commercial and industrial applications for:

- Data centers
- Tenant energy monitoring
- Energy allocation
- Energy management
- Load monitoring
- Building code compliance

## Features

- 24 or 48 individual CT inputs
- Inputs configurable as follows\*:
  - 24/48 individual Single Pole Meters or
  - 8/16 Two Pole Meters or
  - 8/16 Three Pole Meters
- 2 Independent sets of reference voltage input to allow for simultaneous monitoring of two different systems.
- Line powered from 90-600V, phase-to-phase
- Bidirectional monitoring
- Meets ANSI & IEC metering system accuracy requirements including branch CTs
- Supports split core and Rogowski Coil CTs
- Meter board features:
  - Easy access terminals for CT wiring, removable connectors
  - Available with or without display embedded options
- Reports volts, amps, power, demand and energy for each circuit
- User-configurable alarm thresholds register for improved load management
- Selectable phase orientation and number of circuits
- Limited 5-year warranty

\* Consult factory for any other configurations

## Capabilities

### Measured Parameters

- Bidirectional energy measurements
- Volts
- Amps
- kW
- kVAR
- kVA
- aPF
- dPF
- kW demand
- kVA demand
- Import (Received)
- kWh, Export (Delivered)
- kWh
- Net kWh
- Import (Received) kVAh
- Export (Delivered) kVAh
- Net KVAh, Import (Received)
- kVARh, Export (Delivered)
- kVARh
- Net kVARh
- THD Theta
- Frequency

### Accuracy

- 0.2% ANSI C12.20-2010 Class 0.2

### Wide Range Power

- 90-347 Volts AC Line-to-Neutral
- 600V Line-to-Line, CAT III
- Two voltage reference inputs

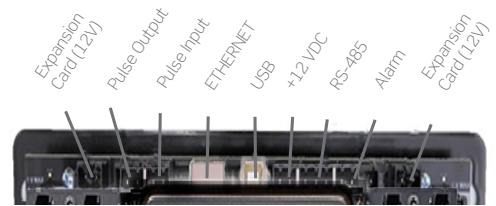
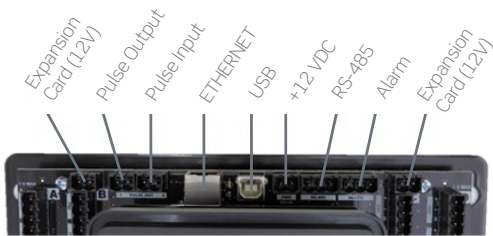
### Highly Configurable

- 1P/2W, 2P/3W, 3P/4W (WYE), 3P/3W (Delta)

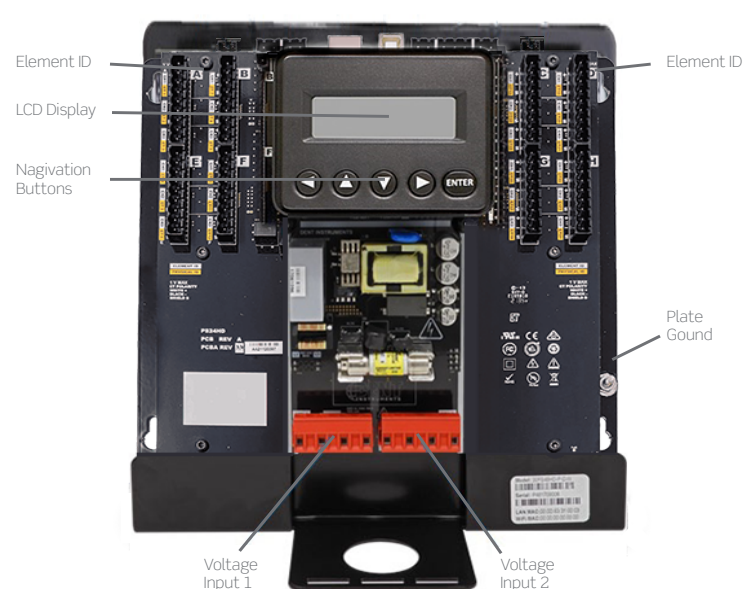
### User Interface Options

- Meter front panel display unit
- Power Meter Viewer software with either USB direct to the meter or PC/Ethernet

## Panel Features

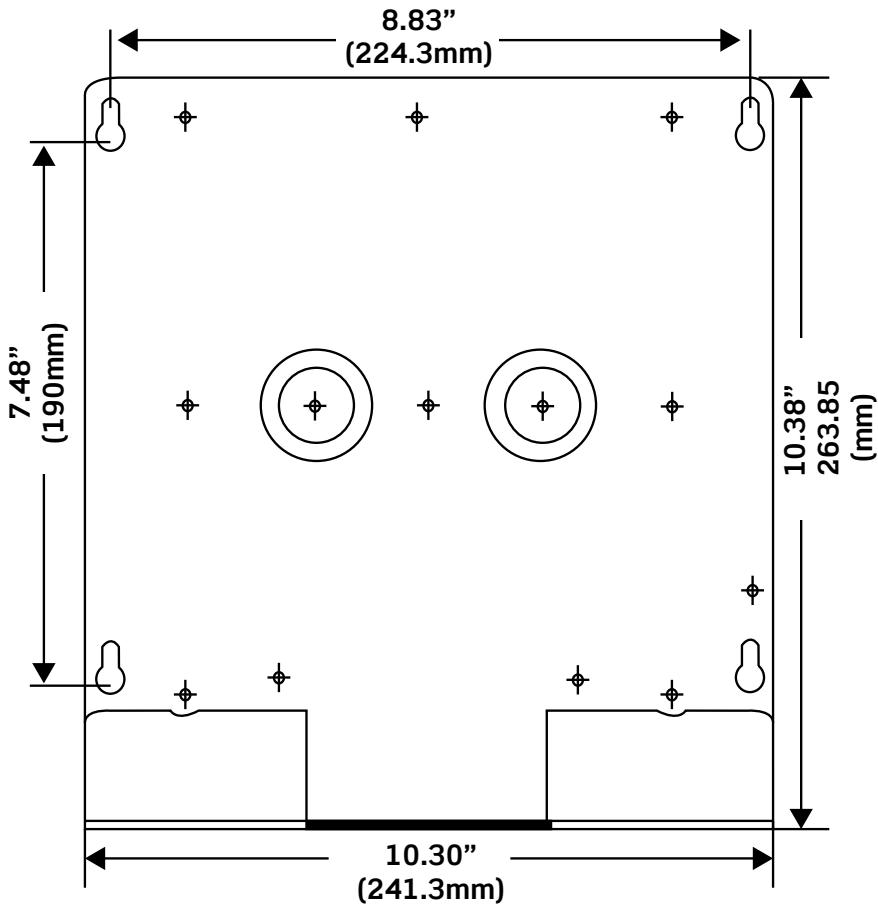


Series 7000 48 Circuit

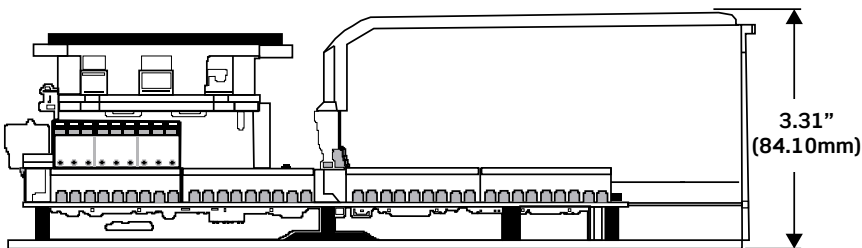


Series 7000 24 Circuit

Series 7000 Dimensions

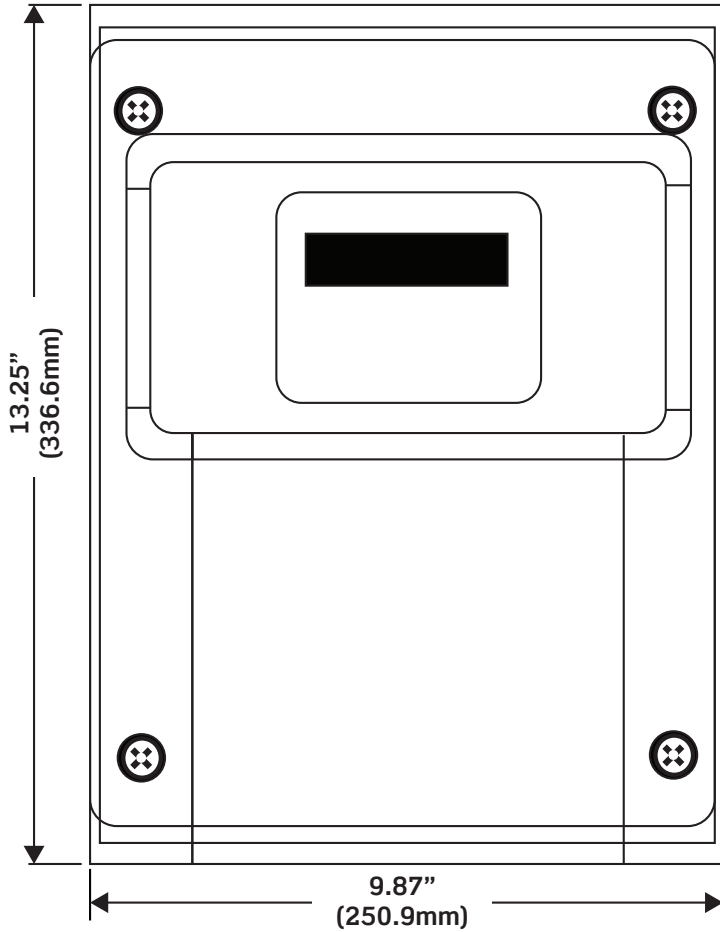


Series 7000 Embedded (Panel Mount)

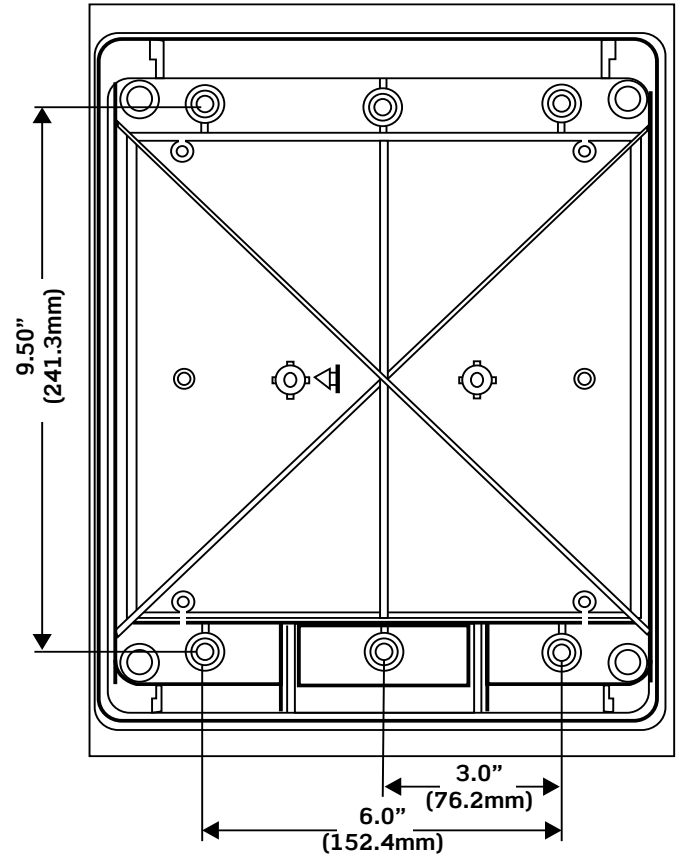


Series 7000 Embedded (Panel Mount)

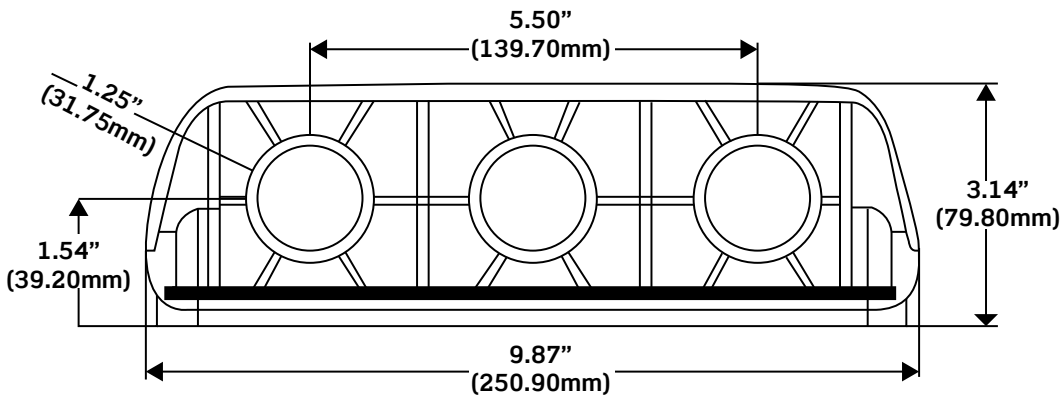
Series 7100 Dimensions



Series 7100 Enclosure Front



Series 7100 Enclosure Back



Series 7100 Enclosure Bottom

## Specifications

Panelboard Monitoring System	
<b>Electrical</b>	
Service Type	1P/2W, 2P/3W, 3P/4W, 3P/3W (Delta)
Power	From L1 Phase to L2 Phase, 90-600VAC RMS CAT 3 50/60Hz, 500mA AC Max
AC Protection	0.5A Fuse 200kA interrupt capacity
Power Out	Unregulated 12VDC output, 200mA, self-resetting fuse
Voltage Channels	90-346 Volts AC Line-to-Neutral, 600V Line-to-Line, CAT 3. Two independent sets of reference voltage
Current Channels	24 or 48 channels, 0.525 VAC max, 333 mV CTs, 0-4,000+ Amps depending on CT
Maximum Current Input	150% of current transducer rating (mV CTs) to maintain accuracy. Measure up to 4000A with Rogowski Coil CTs.
Measurement Type	True RMS using high-speed Digital Signal Processing (DSP) with continuous sampling
Line Frequency	50/60Hz
<b>Mechanical</b>	
Wire Connections	12-22 AWG 600 VAC, voltage connection must be #14 AWG or larger & 600 VAC rated
Mounting	Panel Mount/Enclosure
High Voltage Cover	IP30
PCBA Mounting	0.5" standoffs #6 (quantity 6, user supplied)
Mounting Plate	Available with Series 7000 model
<b>Communications</b>	
Hardware	RS-485, Ethernet and USB (for configuration only)
Supported Protocols	ModBus, BACnet MS/TP, ModBus TCP or BACnet IP
Max Distance	ModBus RTU - 1200 meters (4000 ft) max, other network protocols follow standard network management practices
<b>Environmental</b>	
Operating Temperature	-4° to 140°F (-20° to 60°C) At -4°F, LCD display could be illegible, meter voltage at -4°F must exceed 100 VAC to power the meter
Operating Humidity	5-95% non-condensing
<b>Codes &amp; Standards</b>	
Accuracy & Billing	ANSI C12.20 Class 0.2, NIST traceable calibration
Certifications	<b>UL Recognized(E186827):</b> Applies to mounting plate and circuit board only version, conforms to UL Standard 61010-1 3rd edition, certified to CSA Standard C22.2 No. 61010-1 3rd edition <b>UL Listed (E186827):</b> Applies to indoor enclosure version, conforms to UL Standard 61010-1 3rd edition, certified to CSA Standard C22.2 No. 61010-1 3rd edition
Listing/Safety	CE EN 61000-6-4: Class A
<b>Other</b>	
Enclosure Dimensions	13.25" L x 9.87" W x 3.14" D (336.6mm x 250.90mm x 79.80mm)
Panel Mount Dimensions	10.38" L 9.5" W 3.14" D (263.90mm x 241.3mm 79.80mm)

## Ordering Information

### Series 7000 and 7100 24 & 48 Circuit Advanced Branch Circuit Monitor

Cat. No.	Description
70D48-000	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 48 inputs, LCD display
70N48-000	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 48 inputs, no display
71D48-000	Series 7100 Dual Voltage, Branch Circuit Monitor, 48 inputs, LCD display, NEMA 1 enclosure
70D24-000	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 24 inputs, LCD display
70N24-000	Series 7000 Dual Voltage, Embedded Panel Mount (no enclosure) Branch Circuit Monitor, 24 inputs, no display
71D24-000	Series 7100 Dual Voltage, Branch Circuit Monitor, 24 inputs, LCD display, NEMA 1 enclosure

### Compatible CT Options\*

Cat. No.	Description	Accuracy
CDV01-K17	Solid Core CT, 333mV:100A, 0.75"	0.2%
CDV02-K17	Solid Core CT, 333mV:200A, 0.75"	0.2%
CTV5X-WA4	Split Core CT, 333mV:50A, 0.4"	0.5%
CTV01-KD0	Split Core CT, 333mV:100A, 1" Window	0.5%
CTV02-KD0	Split Core CT, 333mV:200A, 1" Window	0.5%
CTV04-KD1	Split Core CT, 333mV:400A, 1.25" Window	1.0%
CTV08-KG1	Split Core CT, 333mV:800A, 3.0"x3.5" Window	1.0%
CRV50-LR2	5-4000A Rogowski Coil CT 16", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	<0.2% accuracy
CRV50-LR4	5-4000A Rogowski Coil CT 24", 131mV/1000A @ 60Hz, 109.2mV/1000A @ 50Hz	<0.2% accuracy

\*Series 7000 Embed Branch Circuit Monitors are compatible with 333mV CTs, sold separately

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