

MR1: A breakthrough in sub-metering history



Made to Measure

Sieco-Tech's Original Multi-Unit Residential Metering Panel

Since its inception, Sieco-Tech has been at the forefront of innovation in the metering industry.

Consider the MR1, which was released in Canada during a time when it was common for each individual suite in a building to require its own separate meter (single electrical socket meter). This required a lot of real estate space and expensive installations. The result was that far fewer buildings across Canada were able to implement submetering systems. Unnecessary high costs and wasted energy prevailed.

Sieco-Tech's MR1 was a game changer. With just one compact electrical metering panel, which only required space similar to what was needed by one or two socket electrical meters, companies could now monitor data for up to 24 units at a time. The metering panel accommodates 24 single-phase or network (2-phase) metering points. Buildings that previously would have been considered unsuitable for sub-metering were now enabled to lower costs and reduce carbon footprint, while also saving substantially on space, hardware and wiring, and installation.

Sieco-Tech's relentless attention to detail and quality is embodied in the MR1. With robust materials meticulously selected with clients' best interests at heart, the MR1 is built to last. Partners and clients who chose Sieco-Tech have benefited for more than a decade from our commitment to delivering top quality meters, solutions that meet clients' real needs, and stellar customer service.



MR1

Multi-Unit Metering Panel



COMMUNICATIONS

- Internet Protocol (IP) communications capable
- Meter can establish an internet connection and communicate metering and status information via standard File Transfer Protocol (FTP)



EVENT LOG

- Record events such as under-voltage, over-voltage, and meter programming, including occurrence number and time
- Includes power failure information recording function



TIME OF USE (TOU)

- The meter provides the capability of 4 rates, 80 time segments, 4 seasons, 10 day schedules (day-type table) supporting weekends and holidays. Each rate has a separate register to accumulate energy consumption



INTERVAL DATA LOGGING

- The meter records the kWh consumed for every consecutive time interval for every metering point. Logging interval times are selectable from 5 minutes to 24 hours
- Data remains in memory for a minimum of 96 days at 1-hour intervals

MORE FEATURES






- General
 - 24 single-phase or network (2-phase) Residential metering points per metering panel
 - Optional model with 12 metering points is available
- Specific
 - LCD display – 4 lines x 20 characters
 - Four push-button switches for user interface for meter reading
 - Connection points for up to 48 milliAmp CTs (80mA max)
 - Cables connecting milliAmp Current Transformers to the meter included with the appropriate connector
 - The cable type is: 16-pair, 22-gauge twisted-pair in 10 foot lengths
- Enclosure
 - Enclosure includes sealing tabs for revenue approval sealing rendering meters tamper-proof while seals remain affixed
 - Meter Test Port with 24 optically-isolated digital outputs to provide kWh pulses for purposes of testing the meters for accuracy. (500 imp/kWh with 200/0.8A CTs)
 - 3-phase, 4-wire voltage input terminals rated for 120/208 volts
 - Auxiliary 120 volt power input for applications in which separate power from metering voltages is required (100-140 volt range)
 - Programming Switch for meteorological parameter changes. Switch is not accessible when seals are in place
- NON-VOLATILE MEMORY
 - Data retention time after power off - > 20 years
 - Storage Capacity – 8MB (Represents 96 days kWh data at 1 hour intervals), or 24 days at 15 minute intervals
 - Real Time Clock w/ lithium battery – time Lost ≤ 360s/year, NTP Programmable

Features		Approval & Certifications
Voltage Rating	120/208V 3-Phase or 120/240V Single-Phase	Measurement Canada LMB-EG-07e and related addenda S-E-06 (rev. 7) and SEG-02 (Sealing Provisions), approval # AE-1760 ANSI C12.20 Class .5 Accuracy CSA Canadian Electrical Code C22. 2 No. 61010-4 for use in Canada UL 61010-1 for use in the United States FCC – Part 15, Subpart B, Class B, also Part 68 Industry Canada CS-03
Current Rating	Max 80mA (Model MR1-120MA-24) or 5A (Model MR1-1205A-24)	
Current Transformer	200mA to 80 milliamps, 3rd party 5A secondary	
Measured Values	Kilowatt- Hours (Resolution - 0.0002 kWh)	
Configuration	2EL-3W Network, 2EL-3W-1Ph, 1EL-2W-1Ph	
Metering Points	12, 24	
Communication Methods	Ethernet (IP), Telephone (POTS), Power-Line Carrier (PLC)	
Data Retention	≥ 20 years	
Storage	8MB (Represents 96 days kWh data at 1hour intervals), or 24 days at 15 minutes interval	
Reference Frequency	50Hz/60Hz	
Temperature	-25+55C	
Relative Humidity	<90 % Non- condensing relative humidity	

Call for a demo
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PHYSICAL SIZE: 21.6" H X 10.3" W X 2.75" D

Visit us at siecotech.com

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