

Trilliant® RSM-5 Commercial Digital Electric Meter

Remote Data Transfer Through Power Line Communications Technology

- Solution for Commercial or Industrial Applications
- Interval Data and Time of Use Capability
- Load Profiling
- Collects Data from Water and Gas Meters
- Easy to Install
- Proven Accuracy-ANSI Compliant

Trilliant uses a patented Power Line Communications technology to transmit meter data over buildings' existing power lines. No additional wiring or meter readers are required. Leading property management companies all over the world depend on Trilliant systems to provide reliable and accurate electric meter readings. Trilliant meters provide all the data you need to bill tenants, allocate energy costs and make smart energy decisions.

Integrated Power Line Communications

- Utilizes existing electrical wiring for communications
- Requires no dedicated hard wires, additional modules or attachments for communications

Flexible Data Programming

- Interval data down to 5 minutes allows flexible load profiling and Time of Use billing options

Accurate

- Meets ANSI C12.1 and C12.16 specifications

Comprehensive Information

- Event reporting with date and time stamps regarding power consumption, demand resets, power ups and power downs, time changes, and tampers

Liquid Crystal Display

- LCD provides access to data

Multi-utility Submetering System

- Integrates and stores pulse data from gas and water meters

Power Quality Data

- Measures four-quadrant energy to analyze power quality

Tamper Resistant

- Rugged enclosure design

Data Integrity

- Utilizes flash memory for accurate data storage and integrity without battery reliance

Installation Verification

- Display enables on-site verification of proper installation

Easy Access to Data

- Software package available for on- or off-site meter reading

Manufacturer's Warranty

- 3 year meter warranty



Trilliant® RSM-5, Front View



Trilliant® RSM-5, Back View



Trilliant® RSM-5, Opened

Trilliant® RSM-5 Commercial Design Electric Meter

Metering Specifications

Metered Voltage	120, 220, 240, 277, 347, 380, 480, 600, Delta or Wye, 50/60 Hz
Current Input	0.1 Amp and CL10 (5 Amp input) secondary inputs - 50 Amp to 4,000 Amp primary available
Four Quadrant Consumption and Demand	Delivered and received: kW, kVARLeading, kVARLagging, & kVA Volts-squared hours & amp-squared hours
Programmable Interval Data & Peak Demand	5 minute to hourly window Block or rolling block demand Meter total and/or by phase
Real Time per Phase	Voltage, current, phase angle, power factor, THD, watts, VARs, VA and frequency
Time of Use	Up to 16 blocks per day available for all metering parameters
Meets ANSI C12.1/C12.16	
UL, UL-C File E204142	
IEC Optical Communication Interface (Standard Feature)	

Additional Features

Pulse Datalogger	Up to 4 Form A dry contact pulse inputs for water, BTU, gas, other
Pulse Datalogger Specifications	Max. Distance: 300 feet from external pulse meter to RSM-5 (18 gauge min.) Min. Pulse Width: Power on: 50 msec, Power off: 500 msec When the RSM-5 loses power, the pulse accumulator still has the capability to record pulses but the sample rate is reduced Max. Pulse Rate: Power on: 10 pulses/sec max, Power off: 1 pulse/sec max Peak voltage: 5.5V, Peak current: not applicable Isolation: 2.5kV isolation between pulse output and AC line Max. signal debounce tolerance: 20 msec
Demand Reset	Allows local reset of peak demand register
Data Integration Options	IQ Software MV-90 TIM module ASCII-based, open data protocol Open-source data conversion program

Communications Options

Communications	Power Line Communications (standard feature)
Modem	19.2K internal modem
Network Data Link	4-wire RS-485
Optical Probe	IEC optical probe
Serial Port	RS-232 serial port
Protocol	Modbus RTU protocol (2-wire RS-485)
Accuracy	± 0.5% @ unity and 50% power factor 1-100% of full-scale (excluding external CT error) (ANSI Approved)

Liquid Crystal Display

Specifications	Push button scroll 32 digit liquid crystal display (16 digit x 2 rows) 6 whole digit consumption register Data digit height: 0.31" Programmable display scroll & decimal place display
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Operating Range

Voltage	Rated voltage (90% to 110%)
Temperature	-20°C to +60°C
Humidity	0 to 95% R.H. (non-condensing)
Transient/Surge Suppression	ANSI C37.90.1-1989

Memory

Flash Memory	512 Kbyte non-volatile flash memory retains daily and interval data
During Power Outage	Flash memory retains daily/interval data Long-life lithium battery maintains time, logs incoming pulses and retains data acquired within the incompleting interval at the time of the outage

Shipping Weight & Dimensions

Weight	1 RSM-5: 9.0 lbs
Enclosure	13.5"H x 8.5"W x 4.5"D (RSM-5 Kit Weight: 29.1-31.3 lbs)



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