



www.quadlogic.com



MiniCloset-5c

Multi-Tenant Smart Meter



MiniCloset-5c



The MiniCloset-5c (MC-5c) is a multi-tenant digital electric meter in one **compact**, rugged enclosure. The MC-5c is easy to install and operate and its space-saving footprint is designed for use in retrofit and new construction. Our patented Power Line Communications technology is a standard feature eliminating the need for additional wiring to collect data remotely.

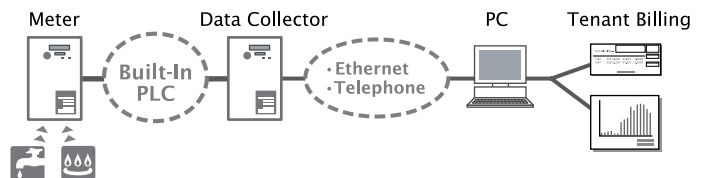
Understand your energy consumption and begin saving with the MC-5c as part of a complete metering system for your residential properties, commercial office sites, retail shopping malls, airports, government properties, campuses or industrial applications.

Benefits

- A single, compact, rugged enclosure saves significant installation costs
- Monitors up to 8 three-phase commercial customers or 12 two-phase residential customers
- Utility-grade kWh and demand meter with revenue-grade accuracy (ANSI C12.1)
- Built-in Power Line Communications (PLC) for optional remote meter reading
- Real-time power diagnostics allow for immediate verification of installation by phase (Voltage, current, phase angle, power factor, watts, and more)
- Reports power downs, demand resets and tampers
- Secure and reliable non-volatile flash memory
- Three-year manufacturer's warranty
- UL, UL-C
- Options: Modem/232/485, RS-485, Modbus, Pulse data inputs (water, gas, BTU)

Power Line Communications for Remote Reading

All of Quadlogic's metering devices function as stand-alone units or can be used for remote reading with the simple addition of a Scan Transponder (data collector) and communication software. No additional wiring is required.



Thinking "Green"?

Quadlogic meters can help you earn credits towards LEED certification under the "Energy and Atmosphere" criteria of several LEED Rating System categories, including:

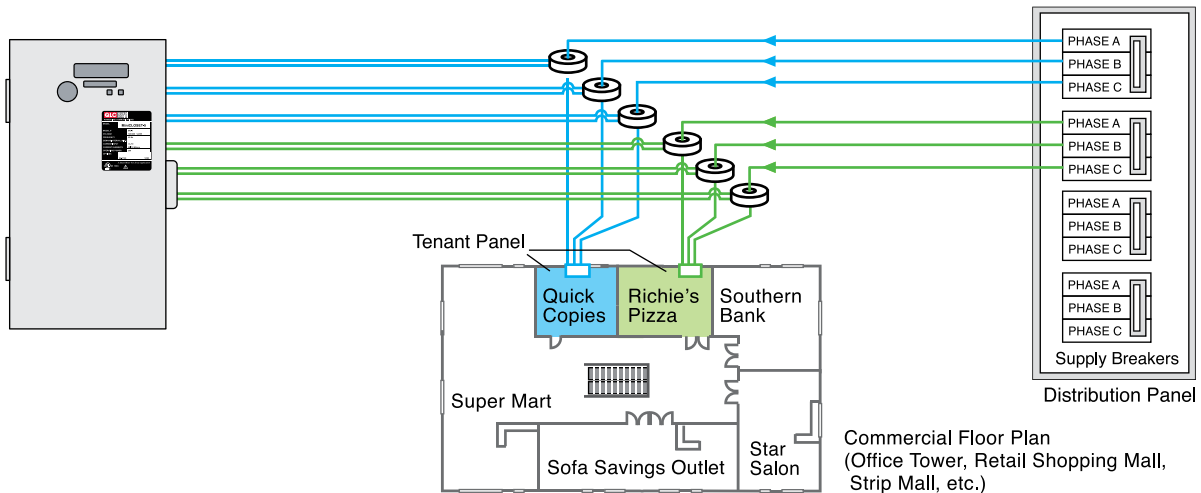
- Existing Buildings Operations & Maintenance
- New Construction
- Core & Shell

In addition, by installing our contractor-friendly meters, you can analyze your "before and after" energy consumption and demand data to evaluate the effects of your property-wide green initiatives.

Are you saving the electric energy you expected to?
How will you know without metering?

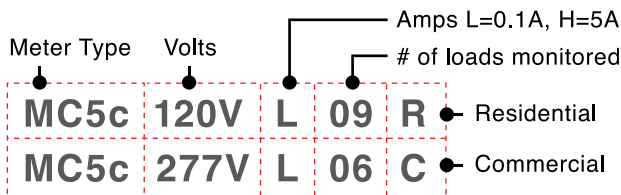
Typical 3-Phase Commercial Wiring

Monitor up to 8 3-Phase Loads with **one** MC-5c!



Model Numbers

The MC-5c consists of a Meterhead and an Enclosure. Required current transformers (CTs) are sold separately.



Residential

	Amp	Voltage	Meter Points	Meterhead	Enclosure
120/208 Single-Phase 3-Wire* (Also requires 2 CTs per meter point)	0.1	120/208	3	MC5c120V L 03R	MC5c BBA 120V
			6	MC5c120V L 06R	
			9	MC5c120V L 09R	
			12	MC5c120V L 12R	

*NOTES:

- 1P3W 120/208V for each residential apartment where distribution panel service is 3P4W 120/208V.
- Models available for 120/240V split-phase metering. Contact manufacturer.

Commercial

	Amp	Voltage	Meter Points	Meterhead	Enclosure
3-Phase 4-Wire, Wye (Also requires 3 CTs per meter point)	0.1	120/208	6	MC5c120V L 06C	MC5c BBA 120V
			8	MC5c120V L 08C	
		277/480	6	MC5c277V L 06C	MC5c BBA 277V
			8	MC5c277V L 08C	
3-Phase 3-Wire, DELTA (Also requires 2 CTs per meter point)	5	120/208	6	MC5c120V H 06C	MC5c BBA 120V
			8	MC5c120V H 08C	
		277/480	6	MC5c277V H 06C	MC5c BBA 277V
			8	MC5c277V H 08C	
3-Phase 3-Wire, DELTA (Also requires 2 CTs per meter point)	0.1	208	12	MC5c208V L 12C	MC5c BBA 208V
		480	12	MC5c480V L 12C	MC5c BBA 480V
		480	12	MC5c480V H 12C	MC5c BBA 480V

- Add suffix for desired option (M=Modem/232/485, RS=RS-485, P= Pulse Data Module)

Single-phase and other models available. Contact manufacturer.

MiniCloset-5c Technical Specifications (MC-5c)

Metering Specifications

Metered Voltage:	120, 208, 220, 230, 240, 277, 347, 380, 400, 416, 480, 600 (Voltage specific) Delta or Wye, 50/60 Hz
Current Input:	0.1 Amp or 5 Amp (CL10) inputs available
Field programmable:	(8) 3-phase meters, (12) network meters, or (24) single phase meters
Four quadrant Consumption & Demand for each of the 24 channels:	Delivered and received: kW, kVARLeading, kVARLagging, & kVA Volts-squared hours & amp-squared hours
Programmable interval data & peak demand:	5 min 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, Industry Canada:	MC#AE-1148
UL, UL-C File	E204142
IEC Optical Communication Interface (Standard Feature)	
Approved by California Div. Of Measurement Standards and Maryland Public Service Commission	

Additional Features

Pulse Datalogger Module (PDM-12):	Maximum 4 PDM-12 units per MC-5c Up to 48 Form A dry contact pulse inputs for water, BTU, gas, other Power supplied by MC-5c Pulses can be logged in programmable intervals and will count during power outage
PDM-12 Specifications:	Max. Distance: 300 feet from pulse meter to PDM (18 gauge min.) 300 feet of CAT5 cable (to connect all 4 PDMs to MC-5c) Min. Pulse Width: Power on: 50 msec, Power off: 500 msec When the MC-5c loses power or is disconnected from the PDM, the PDM 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
Pulse Data Module Encoded (PDME):	Reads Sensus UI-1203 protocol-encoded register Maximum 4 PDME units per MC-5c. (Up to 24 Sensus meters) (Contact manufacturer for specs.)
Demand Reset:	Allows local reset of peak demand register
Data Interrogation Options:	IQ Software MV-90 TIM module ASCII-based, open-data protocol Open-source data conversion program

Communications Options

Power Line Communications (standard feature)	Modbus RTU protocol (2-wire RS-485)
IEC optical probe	Network data link (4-wire RS-485)
19.2K internal modem	RS-232 serial port

Accuracy

+ 0.5% @ unity and 50% power factor;
1-100% of full-scale (excluding external CT error)

Liquid Crystal Display

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

Memory

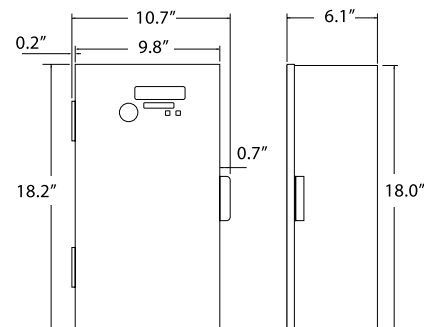
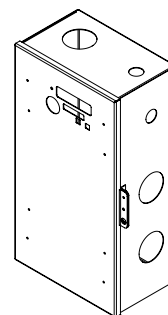
512 kbyte non-volatile flash memory retains daily and interval data
During power outage:
- Flash memory retains daily and interval data
- Long-life lithium battery maintains time, logs incoming pulses and retains data acquired within the incompleting interval at the time of the outage

Operating Range/Environment

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
NEMA 1 rating: Pollution Degree 2

Dimensions & Shipping Weight

18.2"H x 10.7"W x 6.1"D
Shipping weight: 1 meter assembly: 20.8 lbs



For installation diagrams visit
www.quadlogic.com

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