Chameleon User-Configurable Modules (UCM-1, UCM-2)

High-Performance Programmable Controllers for Extreme Environments

KEY FEATURES

- Customizable enclosures with convenient grid to align hardware
- Fully-sealed environmental protection (NEMA 4X, 6P, 13)
- Several mounting options including surface, DIN rail, and pipe
- Optional high-performance mounts isolate shock and vibration
- Seamlessly integrate switches, buttons, alarms and displays with other Chameleon control, data-acquisition, and networking modules for an enclosure-less automation solution
- Made-to-order keypad text and graphics (add your own logo)
- Perfectly suited for use as standalone junction boxes with built in terminal boards
- Modular architecture provides flexibility and expansion potential
- Available in two sizes

Fairmount Automation's Chameleon product line consists of a variety of I/O, networking, user-interface, and power modules that integrate seamlessly to form a high-performance programmable automation controller (PAC). Every PAC node is fully-sealed, so additional enclosures are not required to protect them from the environment. The user-configurable modules (UCM) allow control engineers to incorporate other devices into the Chameleon *enclosureless* solution. Hardware typically added to a third-party enclosure, such as switches, key-locks, alarms, push-buttons, indicators, relays, etc., can be added to a Chameleon UCM and easily integrated into the control system.

User-Configurable Modules are available in two sizes (the larger UCM-1 size is pictured above). They include a convenient grid to align hardware components within the module. Their modular architecture ensures that the aggregate enclosure is only as big as it needs to be for a given application without compromising future expansion needs. In addition, UCMs offer several mounting alternatives, including surface mounting (directly bolted to a machine or device), DIN rail mounting, or pipe mounting (with optional accessories). Optional high-performance isolation mounts can also protect your hardware components from high-impact shock and vibration.

Like all other Chameleon modules, UCMs are equipped with two interconnected PC boards. One board serves as a wiring hub and is attached to the main enclosure—wiring connections made to this board should rarely (if ever) need to be disconnected (even for device maintenance). The second PC board contains connectors for wiring to hardware components added to the UCM. Both this board and the user-added hardware components are mounted on the module's top cover for easy removal during device operation. This two-board design significantly eases maintenance procedures—if a hardware component added to the UCM should ever fail, an operator can simply replace the top cover without disengaging any wires or even shutting off power to the unit.

In addition to providing a means to incorporate your own hardware into a Chameleon PAC, the UCM is ideally-suited for use as a standalone wiring junction box. It comes equipped "out-of-the-box" with several terminal board connectors, mounting holes for tie-wraps to provide wiring strain-relief, and sealed stuffing tubes for wiring access points. And Chameleon's build-to-suit framework ensures that your UCM junction box can grow along with your wiring needs.

Fairmount Automation can pre-fabricate UCM units to your custom specifications, including printing your own text, logo, and other graphics on custom keypads. Please contact a Fairmount Automation representative to discuss your specific requirements.

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FULL-SIZE MODULE SPECIFICATIONS

Dimensions	4" W x 6" L x 3" H
Weight (excluding hardware components added by user)	2 pounds
Terminal board connection points	20 isolated connections (14-26 AWG)
Stuffing tube access points	2 glands for 0.24"-0.47" cables and 6 glands for 0.2"-0.32" cables
Maximum allowed combined continuous current through all I/O	40 Amps RMS

HALF-SIZE MODULE SPECIFICATIONS

Dimensions	2.5" W x 6" L x 3" H
Weight (excluding hardware components added by user)	1.4 pounds
Terminal board connection points	10 isolated connections
Stuffing tube access points	2 glands for 0.24"-0.47" cables and 2 glands for 0.2"-0.32" cables
Maximum allowed combined continuous current through all I/O	20 Amps RMS

COMMON SPECIFICATIONS

Operating Ambient Temperature Range	-40°C to 65°C
Storage/Transport Ambient Temperature Range	-40°C to 85°C
High Impact Shock	MIL-STD-901D
Mechanical Vibration	MIL-STD-167B
Facial/Housing Protection	NEMA 1,2,4,4X,5,6,6P,12,12K,13
Electrical I/O to I/O Isolation	1240 VRMS for 1 minute
Maximum allowed continuous current (any single I/O)	2.2 Amps RMS
Maximum allowed surge current (any single I/O)	14.0 Amps RMS
Maximum allowed current during hot-swap (any single I/O at 40% power factor)	4.4 Amps RMS

SAMPLE CONFIGURATIONS

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