PROLON

## Datasheet

# Make-Up Air Controller (PL-M2000-MUA)

## Description

The M2000 MUA make-up air controller is designed to control a variety of different make-up air units and systems. The on-board microcontroller offers precise digital control to maximize performance. The available control sequences are fully configurable, either locally or remotely, using free software. The M2000 MUA uses PI (Proportional-Integral) control loops to optimize HVAC management and offers a variety of functions such as outdoor reset for the discharge air temperature, building pressure control, CO2 control, safety limits, lockout mode and more.

## Features

- Single, dual or variable volume sequences
- Configurable winter and summer sequences
- Discharge air temperature reset based on outside temperature or zone demand
- Building pressure control or CO2 control using a variable frequency drive
- Internal clock with configurable schedules and calendars
- A manual/off/auto switch for each of the eight outputs
- Remote monitoring and configuration with FREE ProLon Focus software
- Stand-alone or networked (up to 127 nodes)
- Proportional integral (PI) control loops maximize performance
- 5 digital outputs and 3 analog outputs equipped with resettable fuses
- Built-in protection sequences with configurable temperature limits and minimum delays
- Manual input to deactivate lockout mode

## Technical Specifications

**Supply**: 24 VAC ±10%, 50/60 Hz, Class 2

**Power**: 5 VA (consumption), 40 VA (input)

**Inputs**: 9 configurable analog inputs (zone temp / outside temp / discharge temp, dry contact for proof of exhaust, fan and damper opening, manual overrides, CO2 levels, static pressure). Input signals (thermistor / dry contact / 4-20mA / 0-5 VDC) individually configurable for each input

**Digital Outputs**: 5 triac outputs, 10-30 VAC source, 300 mA max (resettable fuse)

**Analog Outputs**: 3 x 0-10 VDC outputs, 40 mA max (resettable fuse)

**Indication lights (LED)**: State of each output / Communication / Power / State of microprocessor

**Microprocessor**: PIC18F6722, 8 bits, 40 MHz, 128Ko FLASH memory

**Casing**: Molded ABS, UL94-HB

**Communication**: Modbus RTU (RS485), up to 127 nodes.

**Baud Rates**: 9600, 19200, 38400, 57600, 76800, 115200

**Connection**: Removable screw-type terminal blocks (16 AWG max) and RJ45 modular jacks.

**Dimensions**: 5.39" x 4.41" (137 mm x 112 mm)

**Environment**: 32-122 °F (0-50 °C) Non-Condensing

**Certification**: UL916 Energy Management Equipment, CAN/CSA-C22.2, RoHS

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