

Reliable Controls® MACH2™ System

# Reliable controls

...people and technology you can rely on™

- E**XPANSION CARD FOR MACH2™ CONTROLLER
- M**OUNTS IN THE SAME ENCLOSURE AS THE MACH2™ CONTROLLER
- P**ROVIDES AN ADDITIONAL 8 UNIVERSAL INPUTS AND 8 UNIVERSAL OUTPUTS
- A**DD UP TO 3 EXPANSION CARDS PER MACH2™ CONTROLLER
- E**ASY TO WIRE 45 DEGREE REMOVABLE CONNECTORS
- H**AND/OFF/AUTO SWITCHES WITH FEEDBACK
- R**OBUST POWDER-COATED STEEL STRUCTURE
- 5** YEAR WARRANTY

## MACH2™ EXPANSION CARD



The Reliable Controls® MACH2™ expansion card is a flexible solution for increasing the control capacity of any MACH2™ installation and ships with the Reliable Controls® *industry best* 5 year warranty.



The Reliable Controls<sup>®</sup> MACH2<sup>™</sup> expansion card is a general purpose, expansion card designed for use with the MACH2<sup>™</sup> BACnet<sup>®</sup> controller. Each MACH2<sup>™</sup> expansion card features 8 universal inputs and 8 universal outputs, and requires 24 VAC/VDC power. A maximum of 3 expansion cards can be connected to a single MACH2<sup>™</sup> controller, increasing the controller capacity to 32 universal inputs and 32 universal outputs. The expansion card is also available with optional Hand/Off/Auto switches on the output with feedback into RC-Studio. The MACH2<sup>™</sup> expansion card ships standard with robust powder-coated steel packaging and removable connectors.

### FEATURES

#### 8 Inputs

- Universal ranges
- DIP switch selectable 0–5 VDC, 4–20 mA, thermistor/dry contact

#### 8 Outputs

- Universal ranges
- Optional switch control (Hand/Off/Auto)
- HOA position feedback to RC-Studio<sup>®</sup>

#### Power Switch

- Convenient switch for turning power on and off

#### Warranty

- 5 years

#### Certification

- UL 916 Listed
- UUKL Listed

### ORDERING

#### M2X (base model)

- MACH2<sup>™</sup> expansion with 8 Universal Input and 8 Universal Output

#### M2X-HC

- Base model with HOA switches

#### M2X-RC-B

- MACH2<sup>™</sup> expansion card ribbon cable - base

#### M2X-RC-C

- MACH2<sup>™</sup> expansion card ribbon cable – cable per 30 cm/1 ft. up to a maximum of 120 cm/4 ft. (maintain shortest possible ribbon cable lengths)

(Add “-SMK” to order # for UUKL models)

### APPLICATION DIAGRAM

### TECHNICAL SPECIFICATION

#### Supply Voltages

- 24 VAC/VDC, 24 VA max.

#### Universal Inputs

- 8 universal inputs
- 10-bit A/D converter
- Analog: 0-5 VDC, 4-20 mA, thermistor
- Digital: dry contact
- Impedance: 15k  $\Omega$  on 0-5 VDC range, 250  $\Omega$  on 4-20 mA range, 10k  $\Omega$  on thermistor range
- 40 Hz pulse counting (supports flow meters)
- 24 VAC over voltage protection

#### Universal Outputs

- 8 universal outputs
- 8-bit D/A converter
- Analog: 0–12 VDC
- Digital: 0–12 VDC
- Manual ON provides 14.1 VDC

- LED indicator (glows proportionally)
- Output power: 75 mA @ 12 VDC
- 24 VAC over voltage and short protection

#### Dimensions

- 21.5 cm L x 14 cm W x 3.81 cm H (8.5" L x 5.5" W x 1.5" H)

#### Mounting

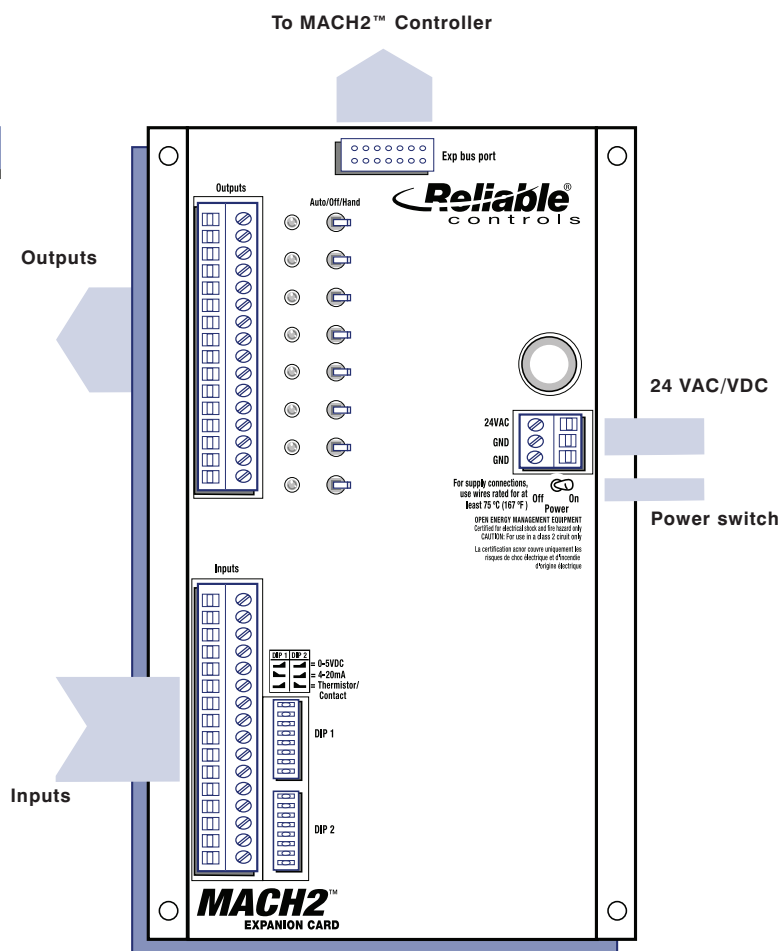
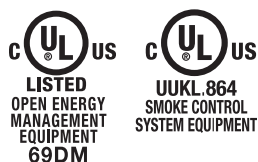
- #8 clearance holes on 20.3 cm L x 12.3 cm W (8" L x 4.8" W)

#### Weight

- 0.4 kg (1.0 lb.)

#### Ambient Limits

- Operating: 0 °C to 40°C (32 °F to 104 °F)
- Shipping: -20 °C to 60 °C (-40 °F to 140 °F)
- Humidity: 10% to 90% RH non-condensing



MACH2<sup>™</sup> Expansion Card