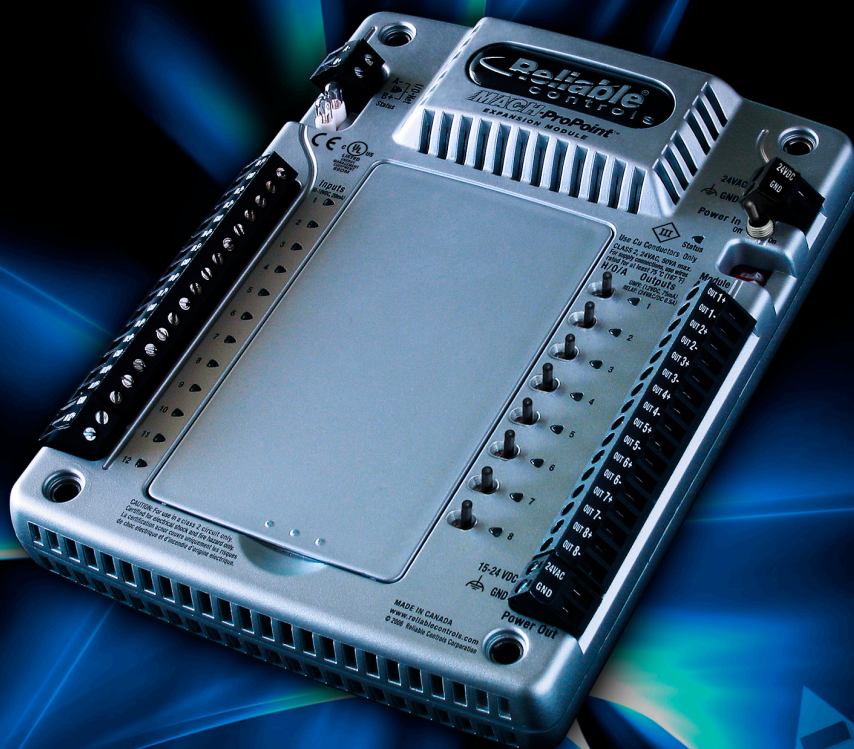




## Modular, flexible I/O

Add modular inputs and outputs to any MACH-Pro, MACH-ProWeb or MACH-Pro2 series controller with this flexible, general purpose input/output expansion module.



Better by design

[www.reliablecontrols.com/MPP](http://www.reliablecontrols.com/MPP)

## TECH SPECS

### Supply Voltages

- 24 VAC  $\pm 10\%$  75 VA max. 50/60 Hz
- 24 VDC  $\pm 10\%$  23 W max.

### Communications

- Dedicated EIA-485 I/O-Net port for communications to host controller
- Baud fixed at 76.8 kbps

### Universal Inputs

- 12 universal inputs
- 12-bit A/D converter
- Analog: 0–10 VDC, 4–20 mA, thermistor
- Binary: dry contact
- Impedance:  
1 M $\Omega$  for 0–10 VDC range  
250  $\Omega$  for 4–20 mA range  
20 k $\Omega$  pull-up for thermistor/dry contact range
- Pulse counting up to 150 Hz (supports flow meters)
- 24 VAC over-voltage protection

### Output Sockets

- Outputs 1–4 ship with empty sockets that accommodate any mix of output modules (sold separately)
- LED indicator (glows proportionally)

### Universal Outputs

- Outputs 5–8 are universal
- Analog: 0–12 VDC
- Binary: 0/12 VDC
- Output power: 75 mA @ 12 VDC
- 24 VAC over-voltage and short protection
- LED indicator (glows proportionally)

### Peripheral Power

- Onboard variable 15–24 VDC power supply providing up to 200 mA of DC power to peripheral devices (If powered with 24 VDC, the maximum voltage output is 22 VDC)

### Wiring Terminals

- 12 to 22AWG (3.31 mm<sup>2</sup> to 0.33 mm<sup>2</sup>)
- Stranded or solid core
- Copper conductors only

### Dimensions

- 17.9 cm L x 13.7 cm W x 3.9 cm H (7" L x 5 3/8" W x 1 1/2" H)

### Mounting

- #8 clearance holes on 15.6 cm L x 11.0 cm W (6 1/8" L x 4 5/16" W)
- Screw depth 25 mm (1")

### Weight

- 0.46 kg (1 lb.)

### Ambient Limits

- Operating: -20 °C to 55 °C (-4 °F to 131 °F)
- Shipping: -40 °C to 60 °C (-40 °F to 140 °F)
- Humidity: 10% to 90% RH non-condensing

## FEATURES

### Superior Design

- Status LED per I/O, glows proportional to voltage level
- Robust, 45° screw terminal
- Reversible door flips to conveniently show points list

### 12 Inputs

- Universal ranges

### 8 Outputs

- Outputs 1–4 are wired to unpopulated sockets
- Outputs 5–8 are universal (no sockets)
- Output modules are sold separately

### Mounting

- The MACH-ProPoint™ Input/Output conveniently mounts in the same enclosure as the host controller, or may be mounted at a distance in a separate enclosure in the same space

### Certifications

- UL916 Listed
- CE

### Warranty

- 5 years

## ORDERING

### MPP-IO

- MACH-ProPoint™ I/O expansion module with 12 universal inputs, 4 output sockets, and 4 universal outputs

### MPP-IO-H

- MPP-IO with HOA (Hand/Off/Auto) switches and potentiometer overrides for each output

### MPP-IO-SMK

- MPP-IO approved for smoke control applications (see MPP-IO-SMK Submittal Sheet for details and options)

## ACCESSORIES

### MP-DINRAIL

- Two-piece adapter kit to mount controller onto 35 mm x 7.5 mm top hat DIN rail. DIN rail not included

### MPP-IO-DL

- Door label sheet for MP-S, MP-S-H, MPW-S, MPW-S-H, MPP-IO, and MPP-IO-H

### RM

- Relay output module (package of 10)

### UM

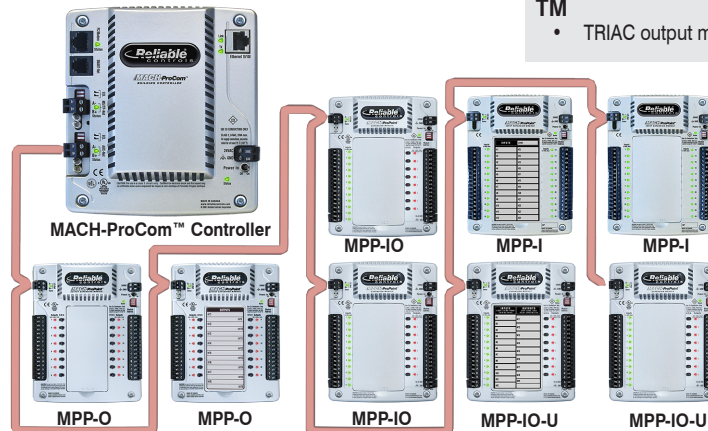
- Universal output module (package of 10)

### TM

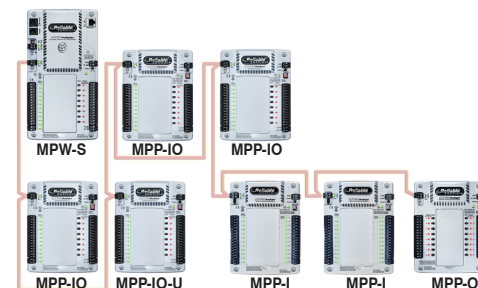
- TRIAC output module (package of 10)

## APPLICATION DIAGRAM

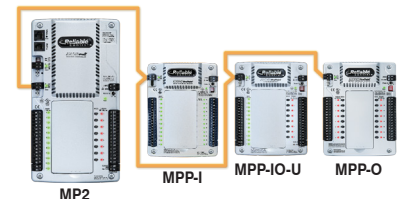
Expansion Module Layout



Up to 8 expansion modules can be daisy-chained to the AUX-Net port of a MACH-ProCom or MACH-ProWebCom controller in any combination.



Up to 7 expansion modules can be daisy-chained to the I/O-Net port of a MACH-ProSys or MACH-ProWebSys controller in any combination.



Up to 3 expansion modules can be daisy-chained to the I/O-Net port of a MACH-Pro2 controller in any combination.

Dealer Information: