

The MPC Vector is a universal microprocessor based speed controller which precisely measures and adjusts the flow output flow while maintaining accurate flow, and automating the process. It can be operated in open loop or closed loop flow measurement allowing for 20:1 turndown as standard and greater turndown with an inverter duty motor and flow meter. Controlled either remotely by signal or locally by a handheld with an easy to ready keypad, the new MPC Vector can control any positive displacement rotary or reciprocating pump with the precision once only reserved for metering pumps. In addition, the handheld controller can be mounted up to 1000ft away from the pump and provides real time readings of flow, status and configuration at a touch of a button. It's a powerful controller that simple to use and supports multiple digital and analog inputs and outputs.

Designed for simplicity, it has many advanced features that allow a wide variety of environments and applications. It is a state of the art, multifunction controller that combines the functionality of several devices in one. It works great on any Pulsafeeder Pump as well as any similar high quality pumps.

### Key Features

- Designed with safety and ergonomics in mind
- NEMA 4X (IP56) rating on the control and the handheld keypad enclosures
- Can be operated in a open loop or closed loop flow measurement
- Handheld keypad can be mounted up to 1000 feet (304m) from the enclosure
- Motor on/off control on handheld keypad with high visibility red button
- Uses state of the art sensorless vector type drive
- 20:1 turndown standard with the appropriate motor, 30:1 higher turndown with inverter duty motor
- Input, output processor (4-20 mA and digital)
- Handheld keypad displays flow in GPH/LPH, GPM/LPM, or displays speed in RPM's.
- Security code lockout of configuration menus
- CE approved
- Panel mount of Nema 4X versions available
- Up to 5HP (4kw) control
- Multi-language support

### Operating Benefits

- PalsaGuard Technology ensures that the pump will not run-dry
- Security code to lock out unauthorized users
- PID closed loop flow control
- Interfaces with existing flow meters
- Saves power and reduces wear from reducing backpressure valves
- Automate process control y interfacing with one of the analog or digital inputs
- Flow validation through an analog output
- Faster identification of system upsets



# MPC VECTOR

## Universal Pump Controller

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## Specifications and Model Selection

|                |    |  |   |   |   |
|----------------|----|--|---|---|---|
| Model          |    | EP   | — | — | — |
| Position 1 & 2 | EP | Product  |   |   |   |
| Enclosure      | C  | NEMA 4 (IP56)  |   |   |   |
| Position 3     | P  | Panel Open Chassis, Remote NEMA 4X                                 |   |   |   |
| HP / Voltage   | A  | Fractional to 1 HP (0.75 kW) - 208-230 VAC, 1 or 3 phase, 50/60 Hz |   |   |   |
| Position 4     | B  | 2 HP (1.5 kW) - 208-230 VAC, 1 or 3 phase, 50/60 Hz                |   |   |   |
|                | C  | 3 HP (2.2 kW) - 208-230 VAC, 1 or 3 phase, 50/60 Hz                |   |   |   |
|                | D  | 5 HP (3.75 kW) - 208-230 VAC, 3 phase ONLY, 50/60 Hz               |   |   |   |
|                | E  | Fractional to 1 HP (0.75 kW) - 480 VAC, 3 phase, 50/60 Hz          |   |   |   |
|                | F  | 2 HP (1.5 kW) - 480 VAC, 3 phase, 50/60 Hz                         |   |   |   |
|                | G  | 3 HP (2.2 kW) - 480 VAC, 3 phase, 50/60 Hz                         |   |   |   |
|                | H  | 5 HP (3.75 kW) - 480 VAC, 3 phase, 50/60 Hz                        |   |   |   |
| Language       | X  | English  |   |   |   |
| Position 5     | A  | German   |   |   |   |
|                | B  | French   |   |   |   |
|                | C  | Spanish  |   |   |   |
|                | D  | Dutch  |   |   |   |

### Engineering Data

**Analog Input:** (Two) 4-20 mA, Control and Flow meter feedback

**Analog Output:** (One) 4-20 mA, Flow indication as a percentage of speed

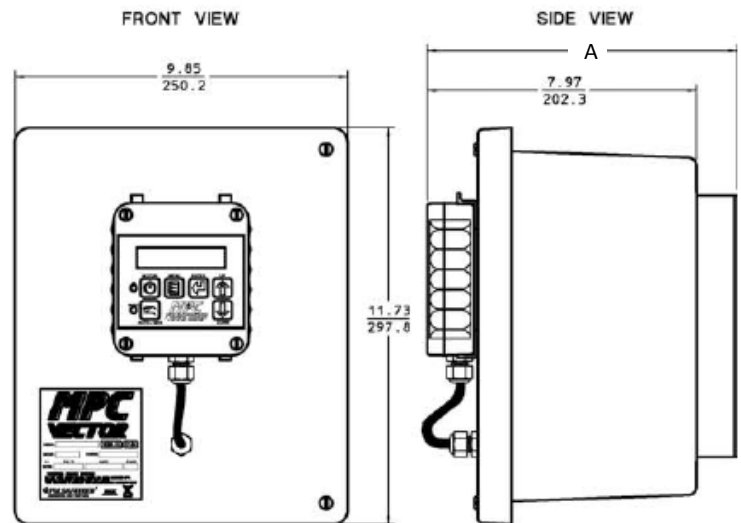
**Digital Inputs:** (Two), Remote On/Off, Tank level, Leak detection or Flow verification

**Digital Outputs:** (Three), Auto/Manual, On/Off status, Trigger relay or alarm

**Rated Ambient Temperature:** 32-104°F (0-40°C)

**Flow Control:** Is dependent upon:

- Use of instrumentation (user supplied flow metering device)
- Open or closed loop system
- Process variables
- Operating pressure
- Fluid Viscosity
- Motor rating and turndown



### Dimensions <sup>in</sup>/<sub>mm</sub>

| Model   | A     |       |
|---------|-------|-------|
|         | in.   | mm    |
| <= 1 HP | 9.5   | 241.3 |
| 2 HP    | 9.5   | 241.3 |
| 3 HP    | 9.82  | 249.5 |
| 5 HP    | 10.86 | 275.9 |

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MPv002-G11