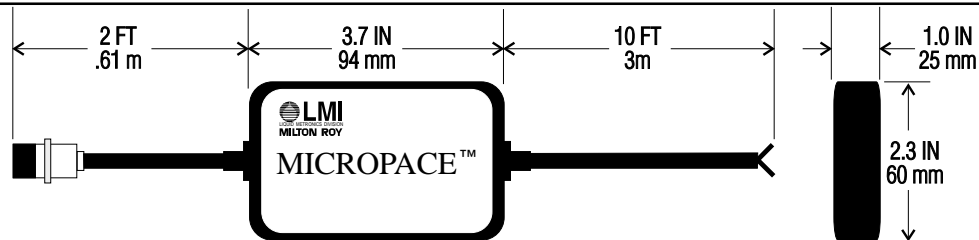


# Instruction Sheet

## Micropace™ Electronic Metering Control Modules



### Power Supply:

15 VDC, Supplied by  
LMI pump

### Ambient Temperature:

0°F to 140°F  
(-20°C to 60°C)

### Enclosure:

Splash & dust proof,  
IP-65 rated

**Specifications and dimensions shown above are typical for all models.**

### MP-100 Analog to Digital Converter

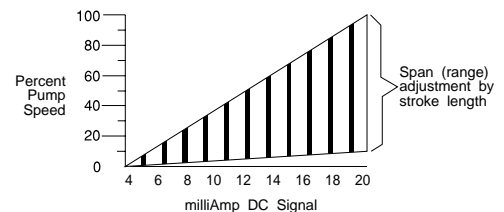
**Input Signal Source:** 4-20 mA (isolated) only.

**Max Input Voltage:** 42VDC

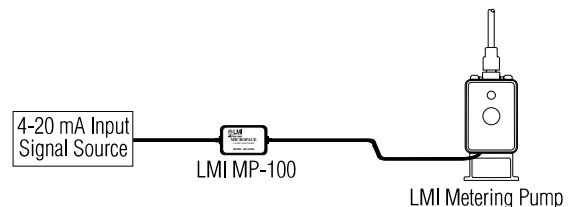
**Impedance:** 100 Ohms

### INSTALLATION

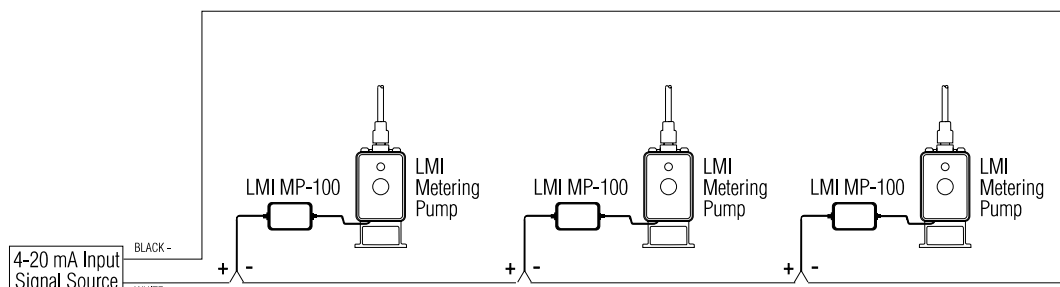
1. Disconnect signal source supply voltage prior to connecting your MP-100. Failure to do so may damage the MP-100 circuit.
2. Insert the 4-pin connector into the socket on your LMI Series A7, B7 or C7 Metering Pump. The socket is located on the bottom right under the pump control panel.
3. Connect the other end of the cable to your input signal source. Polarity is:  
white = positive(+); black = negative (-).



**MP-100 Adjustment Range**



**MP-100 Typical Installation**



**MP-100 Series Loop Control**



8 Post Office Square  
Acton, MA 01720 USA  
TEL: (508) 263-9800  
FAX: (508) 264-9172  
<http://www.lmipumps.com>



**MP-400D Pulse Divider (Counter)**  
**MP-500M Pulse Multiplier (Batch Signal Converter)**

**Max. batch count or multiplier (MP-500M):** 1023 pulses  
**Pulse output rate or speed (MP-500M):**  
fixed, 100 + 2 pulses per minute

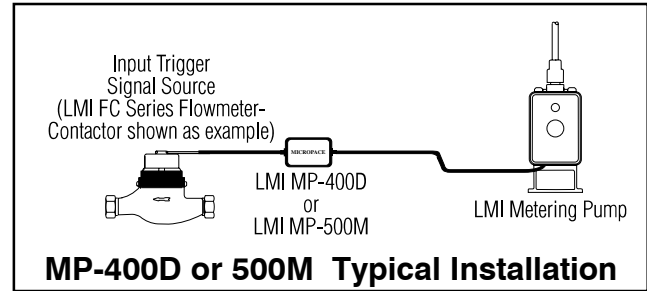
**Switch Input (MP-400D & MP-500M):**

- A. 'On' Resistance: 5K ohms max.
- B. 'Off' Resistance: 100K ohms min.

**Min. switch closure time (MP-400D & MP-500M)**  
**low impedance state (on) :** 10 milliseconds

**Min. switch opening time (MP-400D & MP-500M)**  
**high impedance state (off) :** 20 milliseconds

**Max. count speed or frequency (MP-400D):**  
1800 pulses per minute (30Hz)



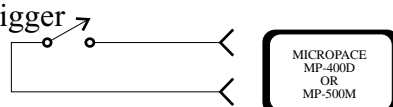
## INSTALLATION

1. The MP-400D and MP-500M Signal Converters may be preset before connection to the pump or signal source, or may also be adjusted after connection.
2. Open the MP-400D or MP-500M cover by removing the four screws that hold the back cover on.
3. Follow the instructions inside the cover to set your Signal Converter. Use a pencil or ball point pen to slide the switches.
4. Replace the cover and the four screws.
5. Insert the 4-pin connector into the socket on your LMI Series A7, B7 or C7 Metering Pump. The socket is located on the bottom right under the pump control panel.
6. Connect the other cable to your input signal source. Polarity is: white = positive(+); black = negative (-).
7. Switch your pump to **EXTERNAL**. The count, division or multiplication will begin immediately. Switching the pump to **OFF** or unplugging the pump will reset the count.

## METHODS OF TRIGGERING MP-400 AND MP-500M

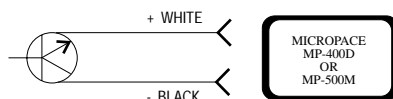
### 1. Switch Closure

switch closing trigger



### 2. NPN Transistor

Base goes high

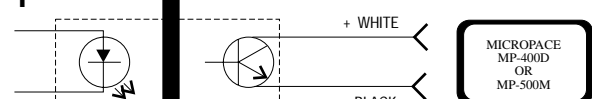


### 3. PNP Transistor

Base goes low



### 4. Opto Isolator



**NOTE:** Switch or transistors must be capable of switching 2 milliamperes @ 15V DC.  
Combining additional **MICROPACE™** units will increase the milliampere demand.