

# PULSAFEEDER®

## PULSAtron Series MP

The Pulsatron Series MP is a true microprocessor controlled instrument for precise and accurate metering control. Packed with standard features, the Series MP include automatic control via 4-20mA or 20-4 mA inputs, external pace with stop feature and 16 character LCD display with support for English, French, and German languages.

Nineteen distinct models are available, having pressure capabilities to 300 PSIG (21 BAR) @ 3 GPD (0.5 lph), and flow capacities to 504 GPD (79.5 lph) @ 20 PSIG (13 BAR), with a turndown ratio of 1000:1. Metering performance is reproducible to within  $\pm 2\%$  of maximum capacity.

### FEATURES

- Automatic Control, Fully scalable 4-20mA current signal.
- Flow Verification on select sizes.
- Flow Totalization.
- Relay Output for computer interface or AC power.
- Simple Prompts in plain language.
- Available in four languages, English, French, German, and Spanish.
- Alarm Signals for signal loss, full count, circuit failure, pulse overflow and pulse rate high.
- Liquid low-level indicator capability is standard.
- Timed Sequences can be set for selected intervals and rate for repetitive metering.
- Pulse Signals can be multiplied or divided by 1 to 999.
- Flow Rate is displayed as GPH, GPD, or LPH.
- Large easy to read backlit LCD display.



### CONTROLS

#### Manual Stroke Rate

- Turn-Down Ratio 10:1

#### Manual Stroke Length

- Turn-Down Ratio 10:1

#### 4-20mA or 20-4mA Input

- Automatic Control
- Fully Scalable
- Turn-Down Ratio 100:1

#### Flow Verification

- Monitors pump output to protect against loss of flow
- Visual Notification

### BENEFITS

- Reliable metering performance.
- Rated "hot" for continuous duty.
- High viscosity capability.
- Leak-free, sealless, liquid end.



Tested and Certified by WQA  
against NSF/ANSI/CAN 61 & 372.



PVDF & PVC Degass Head Pumps.  
See [www.wqa.org](http://www.wqa.org) for  
certification parameters.



# SPECIFICATIONS

| MODEL                   |        | LMK2              | LMB2 | LMA2 | LMD3 | LMB3 | LMA3 | LMK3 | LMF4 | LMD4 | LMB4 | LMH4 | LMG4      | LME4 | LMK5                          | LMH5 | LMG5 | LMH6 | LMK7 | LMH7  | LMH8  |
|-------------------------|--------|-------------------|------|------|------|------|------|------|------|------|------|------|-----------|------|-------------------------------|------|------|------|------|-------|-------|
| Capacity nominal (max.) | GPH    | 0.13              | 0.21 | 0.25 | 0.50 | 0.50 | 0.50 | 0.60 | 0.85 | 0.90 | 1.00 | 1.70 | 1.75      | 1.85 | 2.50                          | 3.15 | 4    | 5.00 | 8.00 | 10.00 | 21.00 |
|                         | GPD    | 3                 | 5    | 6    | 12   | 12   | 12   | 14   | 20   | 22   | 24   | 41   | 42        | 44   | 60                            | 76   | 96   | 120  | 192  | 240   | 504   |
|                         | LPH    | 0.5               | 0.8  | 0.9  | 1.9  | 1.9  | 1.9  | 2.3  | 3.2  | 3.4  | 3.8  | 6.4  | 6.6       | 7.0  | 9.5                           | 11.9 | 15.1 | 18.9 | 30.3 | 37.9  | 79.5  |
| Pressure (max.)         | PSIG   | 300               | 250  | 150  | 250  | 150  | 100  | 100  | 250  | 150  | 100  | 250  | 150       | 100  | 150                           | 150  | 100  | 100  | 50   | 35    | 20    |
|                         | BAR    | 21                | 17   | 10   | 17   | 10   | 7    | 7    | 17   | 10   | 7    | 17   | 10        | 7    | 10                            | 10   | 7    | 7    | 3.3  | 2.4   | 1.3   |
| Connections             | Tubing | 1/4" ID X 3/8" OD |      |      |      |      |      |      |      |      |      |      |           |      | 3/8" ID X 1/2" OD             |      |      |      |      |       |       |
|                         |        | 3/8" ID X 1/2" OD |      |      |      |      |      |      |      |      |      |      |           |      | 1/2" ID X 3/4" OD (LPH8 ONLY) |      |      |      |      |       |       |
|                         | Piping | 1/4" FNPT         |      |      |      |      |      |      |      |      |      |      |           |      | FLOW VERIFICATION (See Note)  |      |      |      |      |       |       |
|                         |        |                   |      |      |      |      |      |      |      |      |      |      |           |      | 1/4" FNPT                     |      |      |      |      |       |       |
|                         |        |                   |      |      |      |      |      |      |      |      |      |      | 1/2" FNPT |      |                               |      |      |      |      |       |       |

Note: Flow Verification: Available on K3, B4 and E4 with connection code 1; H6, K7 and H7 with connection code H; 1/4" ID x 3/8" OD only.

## ENGINEERING DATA

|   |  |
|---|--|
| Pump Head Materials Available           | GFPPPL, PVC, PVDF, 316 SS                |
| Diaphragm                               | PTFE-faced CSPE-backed                   |
| <b>Check Valves Materials Available</b> |  |
| Seats/O-Rings                           | PTFE, CSPE, Viton                        |
| Balls                                   | Ceramic, PTFE, 316 SS, Alloy C           |
| Fittings Materials Available            | GFPPPL, PVC, PVDF                        |
| Bleed Valve                             | Same as fitting and check valve selected |
| Injection Valve & Foot Valve Assy       | Same as fitting and check valve selected |
| Tubing                                  | Clear PVC, White PE                      |

Important: Material Code - GFPPPL=Glass-filled Polypropylene, PVC=Polyvinyl Chloride, PE=Polyethylene, PVDF=Polyvinylidene Fluoride, CSPE=Generic formulation of Hypalon, a registered trademark of E.I. DuPont Company. Viton is a registered trademark of E.I. DuPont Company. PVC wetted end recommended for sodium hypochlorite.

|  |  |
|--|--|
| Reproducibility  | ±2% at maximum capacity                                |
| Viscosity Max CPS  | 1000 CPS   |
| For viscosity up to 3000 CPS, select connection size 3, 4, B or C with 316SS ball material. Flow rate will determine connection/ball size. Greater than 3000 CPS require spring loaded ball checks. See Selection Guide for proper connection. |  |
| Controls   | 6 Station Membrane Switch                              |
| Status Display   | 16 Position LCD Dot Matrix Backlight                   |
| LED Indicator Lights, Panel Mount  | Power On - Green, Pulsing - Green Flashing, Stop - Red |
| Stroke Frequency Max SPM   | 125  |
| External Stroke Frequency Control (Automatic)  | 4-20 mADC, 20-4 mADC External Pacing                   |
| Output Relay (Power Option)  | 24 VDC, 10mA   |
| Output Relay (Power Option)  | 250 VAC, 50/60 HZ, 0.5A                                |
| Stroke Frequency Turn-Down Ratio   | 100:1  |
| Stroke Length Turn-Down Ratio  | 10:1   |
| Power Input  | 115 VAC / 50-60 HZ / 1 ph<br>230 VAC / 50-60 HZ / 1 ph |
| <b>Average Current Draw</b>  |  |
| @ 115 VAC: Amps  | 1.0 Amps   |
| @230 VAC: Amps   | 0.5 Amps   |
| Peak Input Power   | 300 Watts  |
| Average Input Power @ Max SPM  | 130 Watts  |
| Approvals  | Conforms to ANSI/NSF STD. 50                           |

## DIMENSIONS

| Series MP Dimensions (inches) |     |      |    |      |    |     |     |         |         |     |      |      |      |      |     |      |         |
|-------------------------------|-----|------|----|------|----|-----|-----|---------|---------|-----|------|------|------|------|-----|------|---------|
| Model #                       | A   | B    | B1 | C    | C1 | D   | E   | Shpg Wt | Model # | A   | B    | B1   | C    | C1   | D   | E    | Shpg Wt |
| LMA2                          | 5.4 | 10.3 | -  | 10.8 | -  | 7.5 | 8.9 | 13 lbs. | LMG5    | 5.4 | 10.9 | -    | 11.7 | -    | 7.5 | 9.5  | 18 lbs. |
| LMA3                          | 5.4 | 10.6 | -  | 10.7 | -  | 7.5 | 9.2 | 13 lbs. | LMH4    | 6.2 | 10.9 | -    | 11.2 | -    | 8.2 | 9.5  | 21 lbs. |
| LMB2                          | 5.4 | 10.3 | -  | 10.8 | -  | 7.5 | 8.9 | 13 lbs. | LMH5    | 6.2 | 11.3 | -    | 11.2 | -    | 8.2 | 9.9  | 21 lbs. |
| LMB3                          | 5.4 | 10.6 | -  | 10.7 | -  | 7.5 | 9.2 | 13 lbs. | LMH6    | 6.2 | 11.3 | -    | 11.2 | -    | 8.2 | 9.9  | 21 lbs. |
| LMB4                          | 5.4 | 10.6 | -  | 10.7 | -  | 7.5 | 9.2 | 13 lbs. | LMH7    | 6.1 | 11.7 | -    | 11.2 | -    | 8.2 | 10.3 | 21 lbs. |
| LMD3                          | 5.4 | 10.6 | -  | 11.2 | -  | 7.5 | 9.2 | 15 lbs. | LMH8*   | 6.1 | -    | 10.9 | -    | 10.6 | 8.2 | -    | 25 lbs. |
| LMD4                          | 5.4 | 10.6 | -  | 11.2 | -  | 7.5 | 9.2 | 15 lbs. | LMK2    | 5.4 | 10.3 | -    | 10.8 | -    | 7.5 | 8.9  | 13 lbs. |
| LME4                          | 5.4 | 10.6 | -  | 11.2 | -  | 7.5 | 9.2 | 15 lbs. | LMK3    | 5.4 | 10.6 | -    | 10.7 | -    | 7.5 | 9.2  | 13 lbs. |
| LMF4                          | 5.4 | 10.6 | -  | 11.7 | -  | 7.5 | 9.2 | 18 lbs. | LMK5    | 5.4 | 10.9 | -    | 11.7 | -    | 7.5 | 9.5  | 18 lbs. |
| LMG4                          | 5.4 | 10.6 | -  | 11.7 | -  | 7.5 | 9.2 | 18 lbs. | LMK7    | 6.1 | 11.7 | -    | 11.2 | -    | 8.2 | 10.3 | 21 lbs. |

NOTE: Inches X 2.54 = cm / \* the LMH8 is designed without a bleed valve available



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