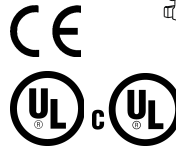
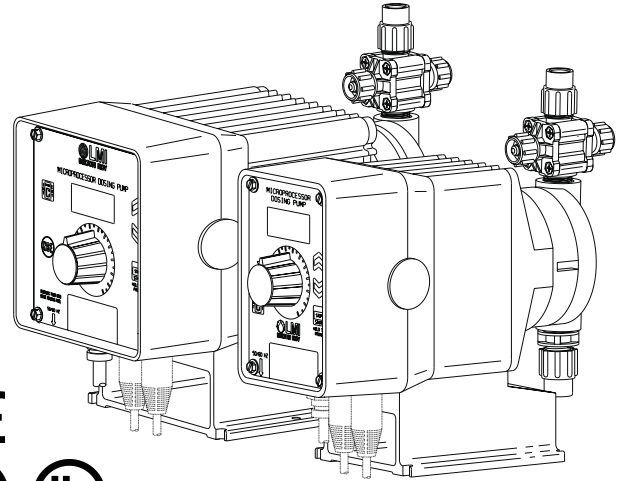


# Information Sheet

## Type 9

### Programmable Electronic Metering Pumps

Type "9" metering pumps are designed for automation. These fully featured pumps are simple to operate, and are ideal for integration into chemical feed systems. The stroke rate may be controlled by a flowmeter, controller, transmitter, PLC, or other device. Remote on/off and low level inputs are standard. Flow monitoring is available to verify pump performance. The clear liquid crystal display provides the user with operational status and notification of alarm conditions.



#### Keypad Adjustable Pressure Capacity

An LMI exclusive, type "9" pumps feature adjustable pressure control that allows for pressure calibration to your system.

#### Corrosion Resistant Nema 4X (IP65)

A corrosion resistant, o-ring sealed enclosure of glass-fiber reinforced polypropylene protects the pump from harsh environments.

The electronic controls and circuitry are permanently encapsulated for protection from moisture and corrosive atmospheres.

#### Rugged Construction

The type "9" pumps feature a thick-wall, glass-fiber reinforced thermoplastic housing. The integrated plastic and metal structural components result in a vibration and shock resistant design. Encapsulated ribbon-cable ends provide additional connection strength and corrosion resistance.

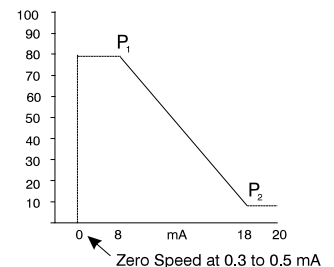
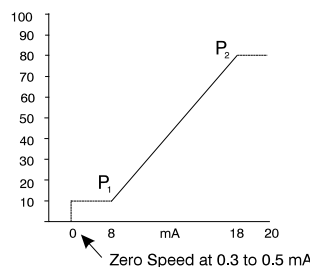
#### Manual Mode Select

The manual stroke rate is adjustable from 1 stroke per hour to 100 strokes per minute, providing versatility and flexibility.

#### External Mode Select

Three external control modes are available to choose from:

- **Pulse Divide**  
(÷) incoming pulses (reed switch, transistor, opto-coupler, or hall effect sensor) from 1 to 999
- **Pulse Multiply (Batch Accumulate)**  
(x) incoming pulses (reed switch, transistor, opto-coupler, or hall effect sensor) from 1 to 999
- **Analog Control (Slope Adjustable)**  
Programmable response to 4 - 20 mA or 0 - 20 mA input signal. Direct or inverse response selectable.



8 Post Office Square  
Acton, MA 01720 USA  
TEL: (978) 263-9800  
FAX: (978) 264-9172  
<http://www.lmipumps.com>



## Lock Modes

Two keypad 'lock' modes may be selected to prevent tampering.

## Memory Back Up

Continuous memory back-up ensures the integrity of programmed values in the event of a power failure.

## Flow Monitor with Auto Back Up

When equipped with LMI's Digi-Pulse Flow Monitor, type "9" pumps will monitor their output and activate an alarm or back-up pump if the primary pump loses output.

## Wide Variety of Applications

- Pump head and valves in PVC, S.S., Polypropylene, UHMWPE or PVDF plus designs for fluoride, high viscosity polymers or abrasive slurries.
- Ceramic valve balls seating on Polyprel® or PTFE seats.
- Composite pump diaphragms assure reliable and leak free operation. The Fluorofilm® diaphragm is resistant to virtually all chemicals.

## Complete with Accessories

LMI metering pumps include the injection check valve, foot valve, priming valve and tubing (where applicable), everything needed for a typical installation.

## Output Information Series A9

Series	Gallons per Hour		Liters per Hour		mL/cc per minute		mL/cc per Stroke		Maximum Injection Pressure
	Min	Max	Min	Max	Min	Max	Min	Max	
A94 <input type="checkbox"/>	*0.001	0.58	*0.004	2.2	*0.07	37	0.07	0.37	250 psi (17.3 Bar)
A95 <input type="checkbox"/>	*0.002	1.00	*0.008	3.8	*0.13	63	0.13	0.63	110 psi (7.6 Bar)
A96 <input type="checkbox"/>	*0.004	2.00	*0.015	7.6	*0.25	126	0.25	1.26	50 psi (3.5 Bar)
A97 <input type="checkbox"/>	*0.001	0.42	*0.005	1.6	*0.08	26	0.08	0.26	140 psi (9.7 Bar)

## Output Information Series B9

Series	Gallons per Hour		Liters per Hour		mL/cc per minute		mL/cc per Stroke		Maximum Injection Pressure
	Min	Max	Min	Max	Min	Max	Min	Max	
B91 <input type="checkbox"/>	*0.002	1.6	*0.006	6.1	*0.10	101	0.10	1.01	150 psi (10.3 Bar)
B92 <input type="checkbox"/>	*0.003	2.5	*0.009	9.5	*0.16	158	0.16	1.58	100 psi (6.9 Bar)
B93 <input type="checkbox"/>	*0.005	4.5	*0.017	17.0	*0.28	284	0.28	2.84	50 psi (3.5 Bar)
B94 <input type="checkbox"/>	*0.007	7.0	*0.027	26.5	*0.44	442	0.44	4.42	30 psi (2.07 Bar)

## Output Information Series C9

Series	Gallons per Hour		Liters per Hour		mL/cc per minute		mL/cc per Stroke		Maximum Injection Pressure
	Min	Max	Min	Max	Min	Max	Min	Max	
C90 <input type="checkbox"/>	*0.001	1.3	*0.005	4.9	*0.08	82	0.08	0.82	300 psi (20.7 Bar)
C91 <input type="checkbox"/>	*0.003	2.5	*0.010	9.5	*0.16	158	0.16	1.58	150 psi (10.3 Bar)
C92 <input type="checkbox"/>	*0.004	4.0	*0.015	15.1	*0.25	252	0.25	2.52	100 psi (6.9 Bar)
C93 <input type="checkbox"/>	*0.008	8.0	*0.030	30.0	*0.51	505	0.51	5.05	60 psi (4.1 Bar)
C94 <input type="checkbox"/>	*0.020	20.0	*0.076	76.0	*1.26	1262	1.26	12.62	25 psi (1.7 Bar)



\* Minimum output is based on 1 stroke per minute. Strokes per hour may be programmed for lower outputs.

When ordering, please indicate desired voltage.

1 = 120 VAC  
2 = 240 VAC

3 = 220-240 VAC, DIN Plug  
5 = 240-250 VAC, UK Plug

6 = 240-250 VAC, Aust/NZ Plug  
7 = 220 VAC, Swiss Plug