

Configuration Data

Model HH **9** **3** **1** - **987**

Control Code

- 1 --- **Manual Control:** Speed (stroking frequency) and stroke length manually adjustable.
- 7 --- **Instrument Responsive/Manual Control:** Manual adjustment features of Control Code 1 plus switch conversion to external control for automatic systems.
- 9 --- **Microprocessor/Instrument Responsive:** External 4-20mA or pulse + or x direct; manual stroke length control.

Output/Size Code

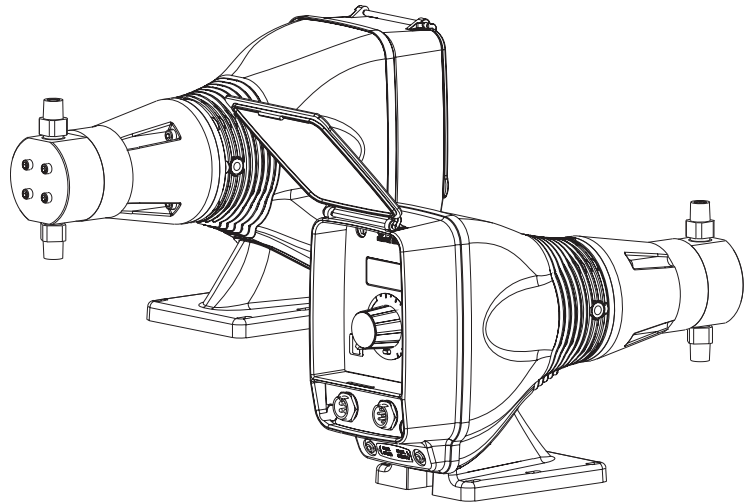
- 1 --- 0.14 GPH (0.50 l/h) ---300 psi---(21 Bar)
- 2 --- 0.10 GPH (0.38 l/h) ---600 psi---(42 Bar)
- 3 --- 0.07 GPH (0.25 l/h) ---1000 psi--(70 Bar)

Voltage Code

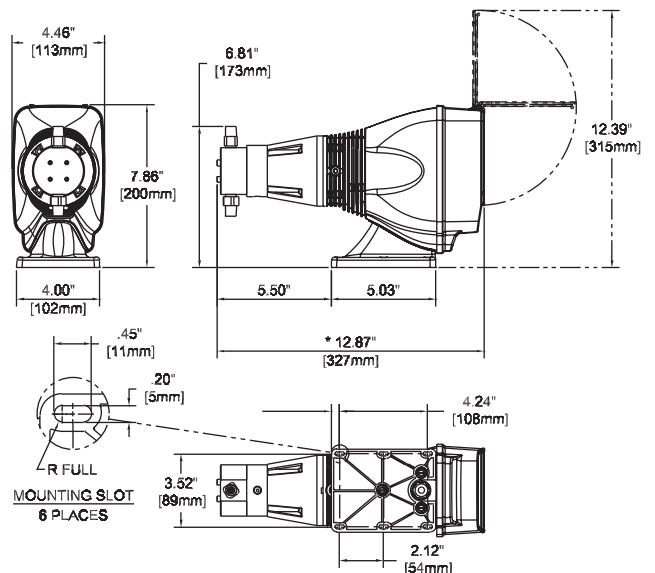
- 1 --- 120 VAC, US Plug, UL
- 2 --- 240 VAC, US Plug, UL
- 3 --- 220-240 VAC, DIN Plug, CE
- 5 --- 240-250 VAC, UK Plug, CE
- 6 --- 240-250 VAC, Aust./NZ Plug
- 7 --- 220-240 VAC, Swiss Plug
- 8 --- 120 VAC, No Plug, CE

Liquid End

- 987 --- High Pressure 316 SS Liquid Handling System.



Dimensions



Series HH9 electronic metering pumps combine the accuracy of microprocessor control with 1000 psi injection pressure capability. These high-pressure, programmable pumps are ideal for applications requiring precise injection of concentrated boiler feed chemicals (Max. Output to 3.2 GPD, Max. Pressure to 1000 psi).

****Minimum System Pressure 200 psi.**



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Keypad Adjustable Pressure Capacity

An LMI exclusive, the Series HH9 features adjustable pressure control that allows for pressure calibration to your system.

Unique V-Seal Design

LMI's spring-loaded V-Seals prevent leakage and reduce pump maintenance. This design feature eliminates the need for packing nuts normally used on packed plunger pumps.

High-Pressure Module

LMI's precision-engineered, high-pressure module includes a 316 S.S. liquid handling assembly.

The cartridge valves are easily serviced and feature closely-guided Stainless Steel balls and seats for accurate, repeatable output.

Manual Mode Select

The manual stroke rate of the HH9 is adjustable from 1 stroke per hour to 100 strokes per minute, allowing for extreme output flexibility. The HH1 and HH7 can be adjusted for one stroke per minute to 100 strokes per minute.

Corrosion Resistant Nema 4X (IP65)

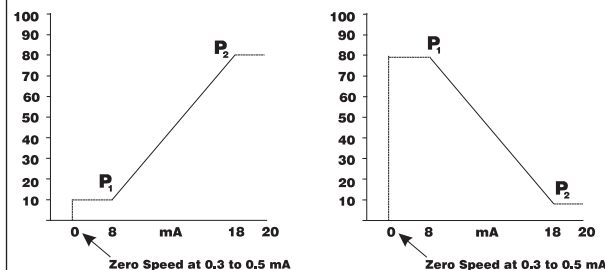
Corrosion resistant, sealed enclosure of glass-fiber reinforced polypropylene protects the pump from harsh chemicals and tough environments.

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

External Mode Select

Three external control modes are available to choose from:
HH9 Only

- **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
- **4 - 20 mA (Slope Adjustable)**
Programmable 4 - 20 mA or
0 - 20 mA response direct or inverse



Rugged Construction

The Series HH9 features a thick-wall, glass-fiber reinforced thermoplastic housing. The integrated plastic and metal structural and magnetic components result in a vibration and shock resistant design not found in competitive products.

Encapsulated ribbon-cable ends provide additional connection strength and corrosion resistance not found in most programmable, electronic-metering pumps.

Specifications

Series	Maximum Output Capacity	Maximum Injection Pressure	Volume/Stroke (ml) (Min - Max)	Liquid Handling Assembly	Connections
HHX1X-987	0.14 GPH (0.50 l/h)	300 psi (21 Bar)	.030 - .080	316 S.S.	1/4" NPT M
HHX2X-987	0.10 GPH (0.38 l/h)	600 psi (42 Bar)	.015 - .060	316 S.S.	1/4" NPT M
HHX3X-987	0.07 GPH (0.25 l/h)	1000 psi (70 Bar)	.010 - .040	316 S.S.	1/4" NPT M