

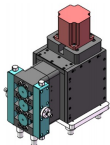
FSH-CF系列 恒流计量泵系统

FSH-CF系列是广州飞升自主研发设计，全新推出的高效恒流计量泵。该系统由1个带彩色触摸屏的控制阀以及无脉冲恒流计量泵体组成。FSH-CF系列集高效率、高精度、高稳定性、全数控于一体，采用微米级的加工精度技术，使其始终保持高精度注液特性。在高效率流体输送方面，能发挥其最大功效。FSH-CF系列恒流泵适用于各种全自动注液灌装、无人化生产车间，广泛应用于锂电池、化工、医药、食品等行业。

工作原理：

特殊计量驱动方式：

为了使排出液体总量保持恒定，FSH-CF恒流泵采用专门设计的特殊恒流驱动装置。通过高效精准驱动，完成吸液与排液动作。该计量泵系统采用微米级高精度加工技术，使得系统的注液精度可达0.3%或更好。



系统特点：

- 高效率，可达40ml/s
- 无脉动，无卡泵，无泄漏
- 高耐压，高达2MPa
- 高精度，重复精度高达0.5%或更好
- 通讯接口：PLC I/O; RS232; Ethernet
- 驱动方式：闭环驱动
- 使用及维护简单
- 可定制防爆型

典型应用：

- 锂电池电解液注液
- 制药行业注液灌装
- 化工试剂灌装
- 化妆品灌装
- 食品添加剂灌装



FSH-CF Series Constant Flow Metering Pump System

FSH-CF series is the latest pulse free high efficiency constant flow metering pump system developed by Guangzhou Ascend. The system consists of a digital controller with color touch screen interface and a pulse free constant flow pump body. FSH-CF series is a high efficiency, high precision, high reliability digital control system based on micro-meter precision machining technology. The system maintains high precision dispensing with maximum injection efficiency. FSH-CF series pump system is a perfect solution for automatic injection and filling lines as well as unmanned automatic factories. The system can be widely used in lithium battery electrolyte injection, chemical dispensing, pharmaceutical drug dispensing, liquid food dispensing, etc.

Working Principle:

Special Constant Flow Driving Technology:

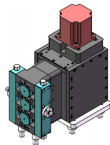
In order to maintain constant fluid flow from the system, FSH-CH pump uses a custom designed constant flow mechanism device. The motor drives the device to complete fluid inlet and outlet dispensing cycle. The pump uses micro-meter high precision machining technology to ensure its system's dispensing accuracy of 0.3% or better.

System Features:

- High efficiency. Up to 40ml/s.
- Pulse free. No pump jamming or leaking
- High pressure. Up to 2MPa.
- High precision. 0.5% or better.
- Communication: PLC I/O; RS232; Ethernet
- Drive: Step motor with closed loop control
- Intuitive and easy to use.
- Option of explosion proof version.

Typical Applications:

- Lithium battery electrolyte injection
- Pharmaceutical drug filling
- Chemical fluid filling
- Cosmetics fluid filling
- Food and beverage additions



FSH-CF系列 恒流计量泵系统

FSH-CF Series Constant Flow Metering Pump System



规格型号定义 Specifications:

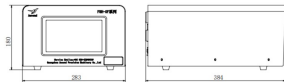
FSH-CF[22]-D-[N]

- N --- 串口 (RS232)
- E --- 网口 (Ethernet)
- D --- 单通道 (Single channel)
- 22 --- 陶瓷柱塞直径22mm (Piston diameter=22mm)
- 30 --- 陶瓷柱塞直径30mm (Piston diameter=30mm)
- FSH-CF- --- 控制系统型号 (Controller model)

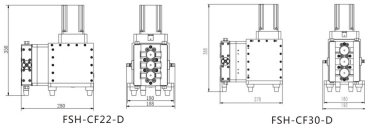
技术参数 Technical Parameters:

型号 Model	FSH-CF22-D	FSH-CF30-D
柱塞直径 Plunger diameter	22	30
最大流量 Maximum flow rate	30ml/s	50ml/s
重复精度 Accuracy	±0.5%	
通讯接口 Communication port	I/O, Ethernet/RS232	
接触液体材料 Materials in contact with fluid	316不锈钢 特氟龙 陶瓷 (特殊氧化铝/氧化钼) 316 Stainless Steel Teflon Ceramic (Special Alumina/Zirconia)	
电源电压、频率 Power supply voltage, frequency	AC100-240V, 50/60HZ	
功率 Power	800W	
真空注液 Vacuum injection	真空注液阀 (可定制) Vacuum injection valve (customized)	

控制器的安装尺寸图 Installation Dimensions of Controller (in mm)



泵的安装尺寸图 Installation Dimensions of Pump (in mm):



管道配置 Tubing Configuration:

参数 Parameter configuration	流量 (ml/s) Flow rate		
	5-20	20-40	
进液接头 (mm) Inlet fitting	±10	±10	±12
出液接头 (mm) Outlet fitting	±8	±10	±10
进液管内径 (mm) Inlet tubing ID	8	8	9
出液管内径 (mm) Outlet tubing ID	6	8	8
注液针头内径 (mm) Needle ID	2-4	2-4	2-4

接头 Fitting:



- FSH-Q-±12
- FSH-Q-±10
- FSH-Q-±8

建议:
管道材质采用特氟龙材料,
进液管总长度不超过3米,
出液管总长度不超过1.5米,
针头与泵头高度差不超过1米。
泵头位置高于箱液罐位置,高度差小于1米。

Suggestions:
Tubing material shall be Teflon material.
Length of inlet & outlet tubing should not exceed 3 meters
Outlet tubing's highest point should not exceed 1.5 meters above pump
Height difference between dispensing needle and pump should not exceed 1 meter.
Pump should be placed higher than fluid tank. Height difference < 1M.