

FC 流量比例控制阀

Proportional Flow Control Valve



整合型一体化比例流量阀 – 保护外壳 × 智慧控制

应用产业 Industrial application

- 气体混合 Gas Mixing
- 分析仪器 Analytical Instrument
- 半导体设备 Semiconductor equipment
- 高精度、高分辨率流量控制 High Accuracy and High Resolution Flow Control.
- AI 服务器水冷散热系统 Liquid Cooling Solution for AI Servers

流量比例阀组由 PM 驱动控制器与 FC 流量比例阀组成，透过输入 0-10 V、4-20 mA 或 RS485 (Modbus) 控制信号，驱动马达移动轴芯，精准调整阀体开度，实现气体与液体的线性且稳定流量控制。其稳定与灵敏的特性，能有效提升设备的运转效率与控制精度。

为响应市场对防护性与安装便利性的需求，我们在原有基础上开发出全新整合型外壳版本，将控制器与比例阀本体一体化设计，不仅保留高精度控制的优势，更进一步提升防尘防溅能力与系统整合性，特别适用于长时间运行及严苛环境的应用场域。

The proportional flow control system combines a PM driver controller with an FC proportional flow valve. By receiving 0-10 V, 4-20 mA, or RS485 (Modbus) signals, the motor precisely adjusts the valve opening to achieve stable, linear, and accurate flow control for gases and liquids. Its responsive performance enhances equipment efficiency and precision.

To meet market needs for better protection and easier installation, we developed a new integrated enclosure version that unites the controller and valve body. This design maintains high-precision control while improving dust and splash resistance, making it ideal for long-term and demanding applications.

产品规格 Specifications

型号 Model	FC300-SG		
阀门类型 Valve Type	两口两位比例式针阀 2-Way Proportional Needle valves		
流体 Medium	真空、惰性气体、油、水...等液体 Vacuum, Compatible gases, oil, water and liquids		
压力范围 Pressure Range	-1~7bar	重复精度 Repeatability	±0.1% F.S.
流量范围(空气) Flow Range of air	0~400L/min@6bar	流量范围(水) Flow Range of water	0~8L/min@6bar
口径 Port Size	G 1/8"	开关时间(全开到全关) Full stroke time	2 sec
流量分辨率(空气) Flow Resolution of air	0.3 L/min@3bar	流量分辨率(水) Flow Resolution of water	0.008L/min@3bar
本体材质 Body material	铝合金 Aluminum	密封件 Seals	FKM 或 FKM+EPDM FKM or FKM+EPDM
温度范围 Temperature Range	-20 ~84° C	防护等级 Ingress Protection	IP 65

型号选择 Ordering Code

系列	FC	- SG			
形式	SG	单座			
输入讯号	**E	0 - 10 V	线长	L2	2m
	A	4 - 20 mA			
	R	RS485 Modbus			

**註 1：若控制讯号选择 0-10V，请留意最小的驱动电流为 3mA。
For Command Signal type 0-10V, the minimum driving current is 3mA.

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外观尺寸 Dimensions

