

FC 流量比例控制閥

Proportional Flow Control Valve



整合型一體化比例流量閥 – 保護外殼 × 智慧控制

應用產業 Industrial application

- 氣體混合 Gas Mixing
- 分析儀器 Analytical Instrument
- 半導體設備 Semiconductor equipment
- 高精度、高分辨率流量控制 High Accuracy and High Resolution Flow Control.
- AI 伺服器水冷散熱系統 Liquid Cooling Solution for AI Servers

流量比例閥組由 PM 驅動控制器與 FC 流量比例閥組成，透過輸入 0–10 V、4–20 mA 或 RS485 (Modbus) 控制信號，驅動馬達移動軸芯，精準調整閥體開度，實現氣體與液體的線性且穩定流量控制。其穩定與靈敏的特性，能有效提升設備的運轉效率與控制精度。

為回應市場對防護性與安裝便利性的需求，我們在原有基礎上開發出全新整合型外殼版本，將控制器與比例閥本體一體化設計，不僅保留高精度控制的優勢，更進一步提升防塵防濺能力與系統整合性，特別適用於長時間運行及嚴苛環境的應用場域。

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.

產品規格 Specifications

型號 Model	FC300-SG		
閥門類型 Valve Type	兩口兩位比例式針閥 2-Way Proportional Needle valves		
流體 Medium	真空、惰性氣體、油、水...等液體 Vacuum, Compatible gases, oil, water and liquids		
壓力範圍 Pressure Range	-1~7bar	重覆精度 Repeatability	±0.1% F.S.
流量範圍(空氣) Flow Range of air	0~400L/min@6bar	流量範圍(水) Flow Range of water	0~8L/min@6bar
口徑 Port Size	G 1/8"	開關時間(全開到全關) Full stroke time	2 sec
流量分辨率(空氣) Flow Resolution of air	0.3 L/min@3bar	流量分辨率(水) Flow Resolution of water	0.008L/min@3bar
本體材質 Body material	鋁合金 Aluminum	密封件 Seals	FKM 或 FKM+EPDM FKM or FKM+EPDM
溫度範圍 Temperature Range	-20 ~84° C	防護等級 Ingress Protection	IP 65

型號選擇 Ordering Code

FC		- SG		-		-	
系列		輸入訊號		線長			
300	0~400 LPM@6bar	G 1/8"	**E	0 – 10 V	L2	2m	
形式		A		4 – 20 mA			
SG		R		RS485 Modbus			
單座							

**註 1：若控制訊號選擇 0-10V，請留意最小的驅動電流為 3mA。
For Command Signal type 0-10V, the minimum driving current is 3mA.

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外觀尺寸 Dimensions

