



壓力比例閥

Proportional Pressure Regulator

QKL-B1N



產品特色 Features

- ◆ 體積小 Compact
- ◆ 高精度 High Precision
- ◆ 高靈敏度 High Sensitivity

產業應用 Applications

- ◆ 洩漏測試 Leak Tester
- ◆ 張力控制 Tension Control
- ◆ 引導壓力控制 Pilot Pressure Control

QKL-B1N 延續 QKL-B1T 系列比例閥的高性能及穩定特性，但在結構設計上大幅進化。此系列本體體積縮小至原先的一半，不僅更輕巧、更容易整合於設備中，也大幅提升安裝彈性，特別適用於空間受限、追求高密度配置或設備模組化的應用環境。在保留閉迴路控制架構與雙電磁閥調節機制的前提下，QKL-B1N 依然能提供精準、快速且穩定的壓力控制，同時輸入訊號及監控訊號皆提供 0-10VDC(電壓)、4-20mA(電流) 及 RS485 ModBus 通訊的選擇。

QKL-B1N inherits the high performance and stability of the QKL-B1T proportional valve series, but has been greatly improved in structural design. The body size of this series has been reduced to half of the original, making it lighter, easier to integrate into equipment, and significantly enhancing installation flexibility. It is especially suitable for applications with limited space, high-density layout requirements, or modular equipment configurations.

While retaining the closed-loop control architecture and dual-solenoid regulation mechanism, QKL-B1N continues to provide precise, fast, and stable pressure control. Both input signals and monitor signals offer options of 0-10VDC (voltage), 4-20mA (current), and RS485 ModBus.

型號選擇 Ordering Code

QKL - □ - □ - □

系列 Type

B1N	內部迴授	M5*0.8
	Internal Feedback	

輸入訊號 Input Signal

*E	0 - 10 V
A	4 - 20 mA
R	RS485 Modbus

監控訊號 Monitor Output

C	0 - 10 V
A	4 - 20 mA
R	RS485 Modbus

*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



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產品規格 Specifications

Type	QKL-B1N
輸出壓力Output Range	7 bar(102psi)
最大入氣壓力Supply Pressure Max	8 bar(116psi)
輸入訊號Input Signal	0-10V / 4-20mA / RS485
監控信號Monitor Output	0-10V / 4-20mA / RS485
工作電源Power Supply	DC24V ($\leq 5W$)
介質 Medium	Clean compressed air or with 5 μm filter
重複精度Repeatability	$\pm 0.1\%$ F.S.
線性度 Linearity	$\pm 0.5\%$ F.S.
遲滯Hysteresis	$\pm 0.5\%$ F.S.
綜合精度 Accuracy	$\pm 0.5\%$ F.S.
靈敏度 Sensitive	0.1bar
流量 Flow Rate	12L/min @ 7bar
使用溫度範圍Temp. Range(Operating)	0 ~ 70 $^{\circ}C$ (32 ~ 158 $^{\circ}F$)
口徑 Port Size	M5*0.8
底座材質 Manifold Material	Aluminum
接液材質 Wetted Materials	Aluminum, Stainless steel, Brass, FKM
電器連接 Electrical Connection	M12 Connector(2m)
防護等級 Ingress Protection	IP 65