



High Grade Metal Seal Flow Controllers

MODEL 5100 SERIES



Being the successor of the Model 3440 that has been favorably received by many customers, the Model 5100 Series Mass Flow Controller is a multi-range type model provided with improved basic performance features. While, in appearance, it is a conventional mass flow controller, it provides many sophisticated features; particularly, its advanced sensor drive system minimizes zero drift, one of the characteristic features of the predecessor model so acclaimed by customers, so that improved response can be obtained in low ranges.

Features

- Improved control and response performance in every flow range
- Improved performance to follow up set voltage (compatible with voltage ramping specification)
- Range shift function to meet the multi-range requirement
- Optimized valve to maximize the control resolution in each range

Standard Specifications

Flow range	10SCCM-20SLM
Valve type	Diaphragm valve (Normally closed solenoid)
Control range	2%-100%F.S.
Response	1 sec. or less to within $\pm 2\%$ of full scale of final value typical for 0-100% response
Accuracy	Within $\pm 1.0\%$ F.S.(@20°C)
Linearity	Within $\pm 0.5\%$ F.S.(@20°C)
Repeatability	Within $\pm 0.2\%$ F.S.(@20°C)
Working temperature range	0-50°C (Accuracy guarantee: 15-35°C)
Operating differential pressure	F.S. ≤ 5 SLM 49kPa-294kPa 5 < F.S. ≤ 20 SLM 98kPa-294kPa
Proof pressure	980kPa
Materials of parts in contact w/gases	SUS 316L, Au or PTFE
Joint	Standard: Equivalent to 1/4VCR® Optional: 1/4SWL®
External leak integrity	1×10^{-11} Pa·m ³ /s (He) or less
Input signals	0-5VDC
Output signals	0-5VDC
Power supply	+15VDC ($\pm 5\%$) 100mA, -15VDC ($\pm 5\%$) 200mA
Mounting position	Available in any position
Weight	Approx. 1000 g

Harness Layout

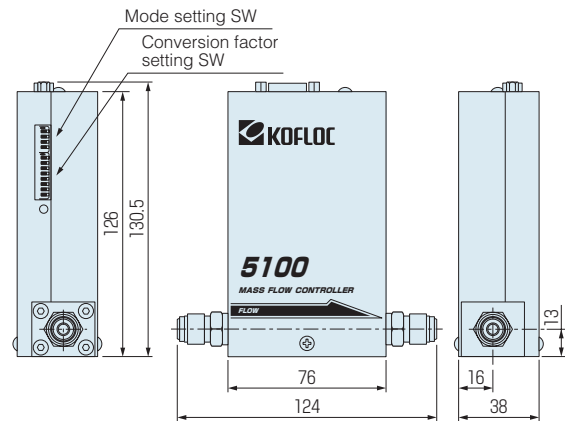
Pin Assignment of Dsub 9-pin Connector per KFC Standard

Pin No.	Signal	Pin No.	Signal
1	Input valve open/close operation	6	Flow input Hi
2	Flow output 0-5 V	7	Flow output COM
3	+15 VDC Power sourc	8	Flow input Lo
4	Power source COM	9	Output valve voltage
5	-15 VDC Power source		

- ** Because a differential input system is used for the product, pin 4 (Power source COM) is connected inside the mass flow controller while pin 8 (Flow input Lo) is isolated. In case of a single-ended connection, connect pin 8 to pin 4.
- * For baking applications on Model 5100B, working temperature is specified up to 80°C.

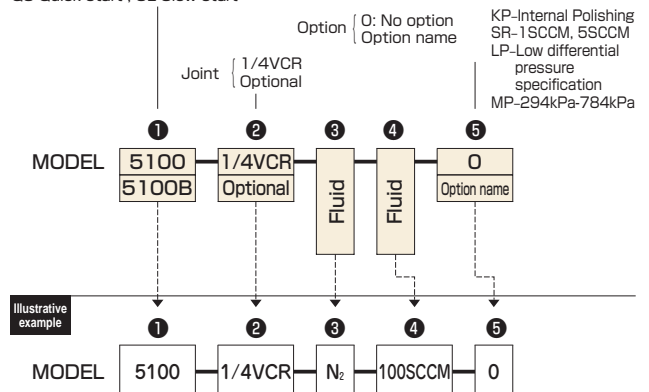


Dimensions



Ordering

SU-SVS Seal(for Cogas)
QS-Quick start , SL-Slow start



* Refer to "Ordering" and "Illustrative Example" when placing an order or requesting a quotation. Fill in the blanks in the "Order/Quotation Request Card" at the end of the catalog, and send the card by fax.