Mass Flow Controller/Mass Flow Meter with Indicator
MODEL 8500

RoHS compatible

This mass flow controller/meter driven by a 24 VDC power supply has been developed as a successor to the MODEL 8300.
The view point change function of the display unit and the pattern setting function are unique to this model, and noise resistance has been improved dramatically. A sister model with a detachable display and setting unit is also available.

Features

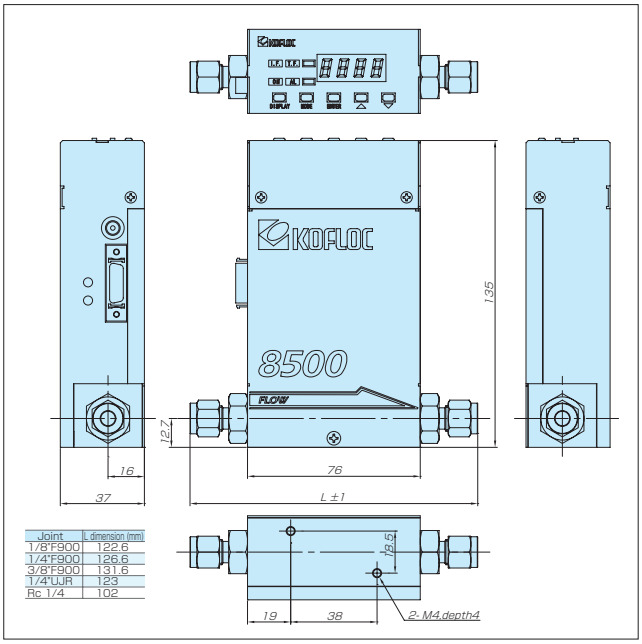
- The high-lift actuator allows this compact model to control a large flow rate.
- Equipped with a display and setting unit, this model can be operated by a 24 VDC power supply.
- The RS232C/RS485 communication function and integration function are provided as standard equipment.
- The 14-bit converter permits display and operation in 4-1/2 digits.
- Control of the flow rate of inflammable gas is possible, because the heat generating part of the sensor is not exposed to gas.
- There are no limitations on the mounting position that may be employed.
- In addition to SV setting, five other patterns can be set.
- Auto zero and auto close functions are also standard.

Standard Specifications

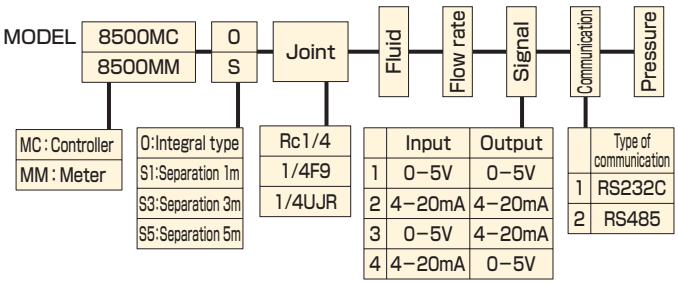
Flow range (F.S.) (at N2 calibration conditions)		10SCCM–20SLM
Sensor		Thermal coil sensor
Valve actuator		Solenoid; normally-closed
Valve type		Poppet valve
Control system	Control range	2%–100% F.S.
	Response	2 sec. or less for 0 to 98%
	Accuracy	±1.5%F.S.(@20°C)
	Repeatability	±1.0%F.S.(@20°C)
Pressure	Proof pressure	980kPa
	Operating differential pressure	F.S.≤5SLM 49-294kPa 5<F.S.≤20SLM 98-294kPa
	Low differential pressure (Option)	2kPa-149kPa
Temperature	Operating temperature	0-50°C
	Accuracy guaranteed temperature	15°C-35°C ±0.2F.S./°C
Humidity	Allowable operating humidity	10-90%RH (Dew condensation not allowed.)
Flow rate setting	Mode	(1) Standard key input (2) External setting input (3) Pattern key input (5 patterns)
	Input range	(1) OV-5V (2) 4mA-20mA (Arbitrary setting)
Flow rate output	Output range	(1) OV-5V (2) 4mA-20mA (Arbitrary setting)
Flow indication	Method of display	7-segment LED in 4 digits; Integral display: 0000-9999
	Accuracy of display	±0.1%
Communication		RS485
		RS232C
Alarm	Output No.	Alarm output: 2 (Open collector output Max 35 V: 50 mA)
	Resolution	1mV (1digit)
Power supply	Rating	24 VDC current consumption: 300 mA max.
	Allowable supply voltage range	24 VDC±10%(Ripple 5%)
Materials of parts in contact with gases		Viton, PTFE, SUS316, neoprene (option)
Joint		Rc1/4, 1/4F900, 1/4UJR
Mounting position		No specification
Weight		Approx. 1,200 g

* Select the input/output signal from (1) 0-5 V and (2) 4-20 mA when placing an order.
* Please contact us for the 8550 type of 30-100SLM.

Dimensions

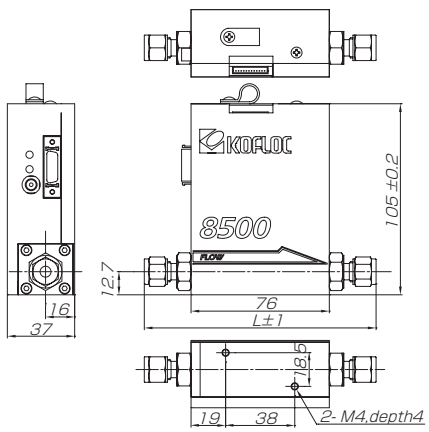


Ordering

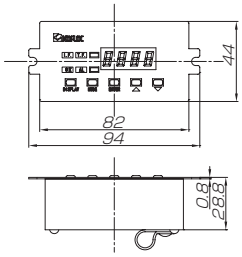


* Refer to "Ordering" and "Illustrative Examples" when placing an order or requesting a quotation. Fill in the blanks in the "Order/Quotation Request Card" at the end of the catalog, and send the card by fax.
* Measurements will be taken for joints other than our standard joints. (Option)

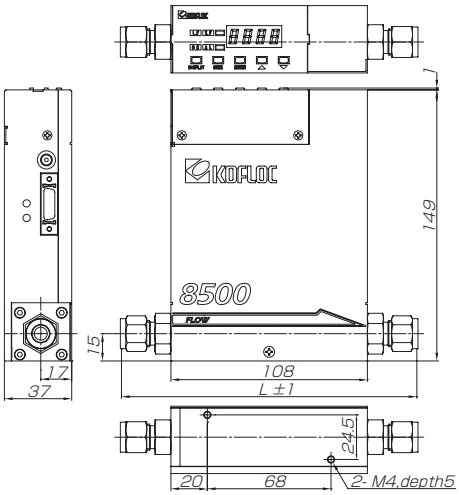
MODEL 8500 separate type – Main unit



MODEL 8500 separate type – Display



MODEL 8550 (for large flow rate)



Example of RS-485 communication wire configuration

Example of communication system configuration with the MODEL D8500
One logging PC permits logging and operation of a maximum of 31 units.
(A communication terminating resistance is mounted. ON/OFF is possible.)