

Mass Flow Controller/Mass Flow Meter with Indicator

MODEL 8500 SERIES

This mass flow controller/meter driven by 24VDC power supply has been developed as a successor of 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.



- 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 24VDC 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 pattern can be set.
- Auto zero and auto close functions are also standard.

Standard Specifications

Model	8500MC/MM	8550MC/MM
Flow range (N ₂ gas calibration condition at 1atm, 20°C)	10SCCM-20SLM	30SLM-100SLM
Sensor	Thermal mass flow sensor	
Valve (*1)	Normally-closed proportional solenoid valve	
Control/measurement range (*1)	2-100% F.S.	5-100% F.S.
Response (*1)	Within 2 seconds (within +/-2% F.S.)	Within 3 seconds (within +/-2% F.S.)
Accuracy	±1.0% F.S. (25°C)	±1.5% F.S. (25°C)
Temperature characteristics	+/-0.1% F.S./°C (15-35°C)	+/-0.2% F.S./°C (15-35°C)
Applicable gases (dry gas)	N ₂ , Air, O ₂ , CO ₂ , Ar, H ₂ , He, etc.	
Repeatability	±0.5% F.S.	
Operating differential pressure (*1)	F.S. ≤5SLM 50-300kPa	F.S. ≤50SLM 150-300kPa
	F.S. >5SLM 100-300kPa	F.S. >50SLM 200-300kPa
	Option: Lowe differential pressure (LP) etc.	
Allowable operating pressure (*1)	500kPa (G) or less	
Proof pressure	980kPa (G)	
He leak rate (*2)	1×10 ⁻⁸ Pa·m ³ /sec. or less	
Allowable operating temperature	5-45°C	
Allowable operating humidity	10-90%RH (No condensation allowed)	
Materials of parts in contact with gases	Body: SUS316, SUS316L	
	Valve sheet: FKM (option: CR or NBR)	
	Sealing: FKM (option: CR or NBR)	

Model	8500MC/MM	8550MC/MM
Electrical connection	D-sub half-pitch 20-pin (model HIROSEDX 10M-20S)	
Flow rate setting/ input signal (*1)	0-5VDC or 4-20mA (Choose at the time of order)	
Flow rate output	0-5VDC or 4-20mA (Choose at the time of order)	
Communication	RS232C or RS485 (Choose at the time of order)	
Other functions	Other functions Changeable indication of the instant flow rate and total flow rate, Alarm output, Pattern setting	
Power supply	24VDC +/-10% (ripple5%), current consumption: less than 300mA	
Joint	1/4SWL type (standard), 1/4VCR type, RC1/4	3/8SWL type, 3/8VCR type, RC3/8
Weight	Approx. 1200g	Approx. 1500g

(*1) These apply to the mass flow controller

(*2) Permeation is not included. The leakage by prolonged permeation shall not exceed 1×10⁻⁶Pa/m³/sec

△Note

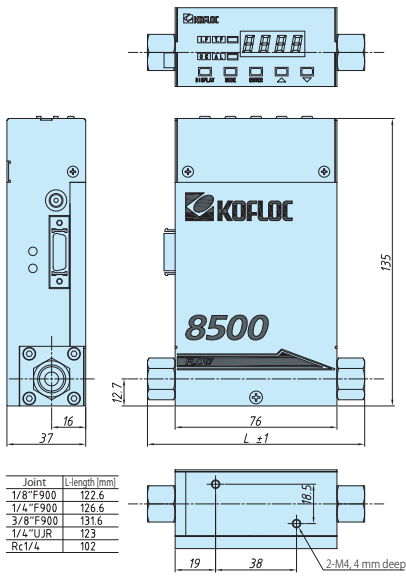
Specifications relating to the flow range (e.g., flow range, accuracy and response) are expressed in N₂ or air equivalent. The product will be built with the primary pressure of 300kPa or less and the secondary side open to the atmosphere. For details on the pressure requirements, please contact us.

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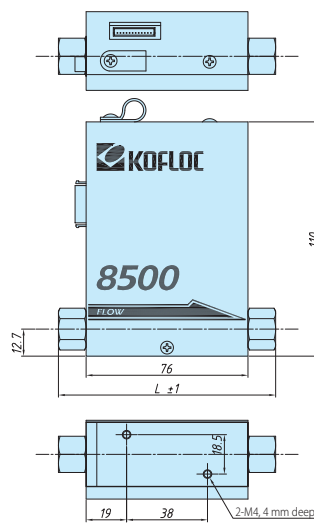
Mass flow meters and Controllers

MODEL 8500 SERIES

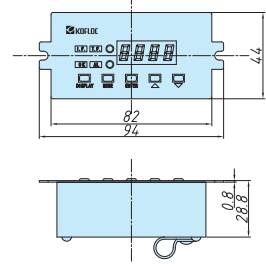
MODEL8500
Indicator Built-in Type



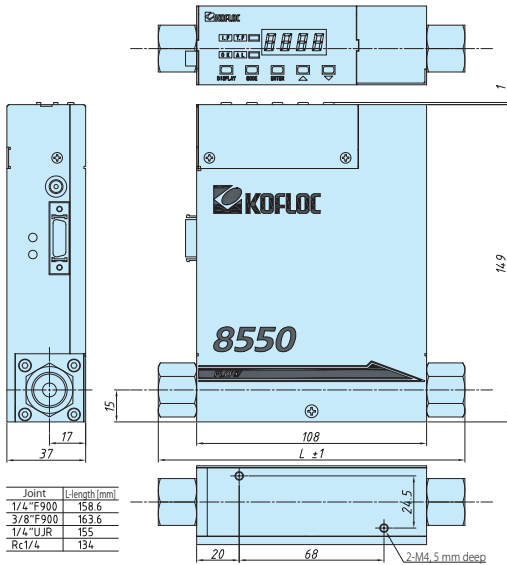
MODEL8500
Indicator Separate Type (MFC Body)



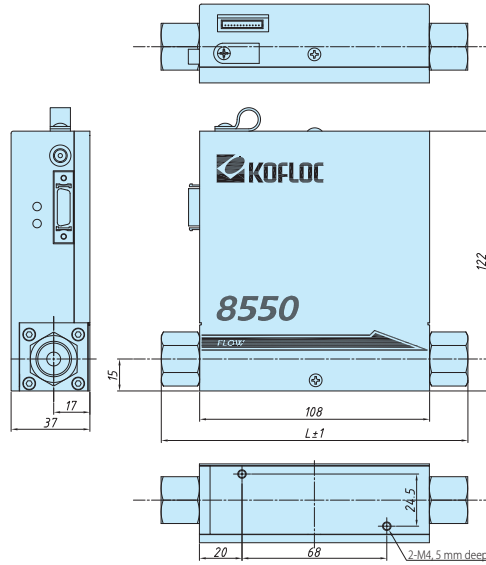
MODEL8500
Indicator Separate Type (Indicator)



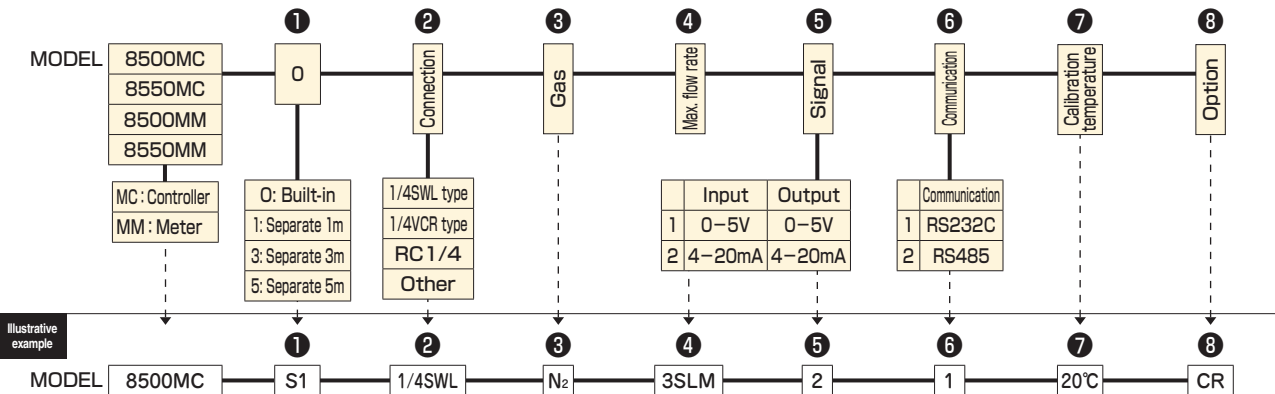
MODEL8550 (Large Flow Rate)
Indicator Built-in Type (MFC Body)



MODEL8550 (Large Flow Rate)
Indicator Separate Type (MFC Body)



Ordering



* Please see P55 for the cable, CP-STD6 and power cable, PSK-85.