

Mass Flow Controller / Mass Flow Meter with Display

MODEL 8700 SERIES NEW



Applicable fluids Gas N<sub>2</sub>, Air, H<sub>2</sub>, He, Ar, O<sub>2</sub>, CO<sub>2</sub>, etc.

Max. flow rate Gas 10SCCM to 100SLM

Accuracy ±1 to 1.5%F.S.

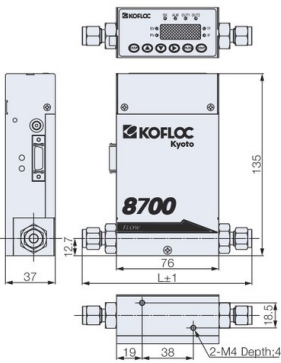


- Capable of wide flow range  
(from F.S. 10SCCM to F.S. 100SLM in N<sub>2</sub> equivalent)
- Various functions are available with built-in display  
Instantaneous / integrated flow rate display, alarm setting
- RS485 communication function  
0 to 5VDC analog input / output (changeable to 4 to 20mA)

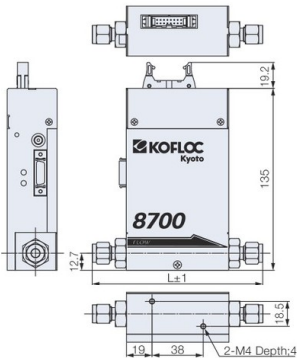


Dimensions

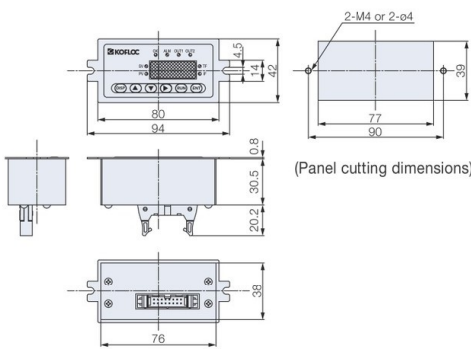
<<8700 built-in display type>>



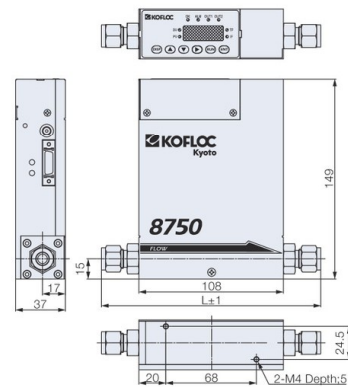
<<8700 separate type main unit>>



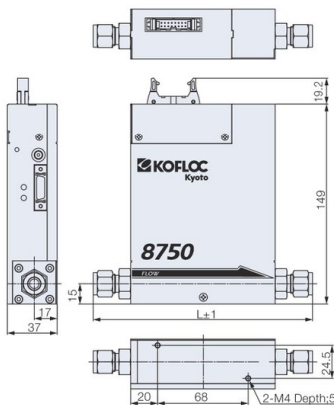
<<8700 / 8750 separate type display>>



<<8750 built-in display type>>



<<8750 separate type main unit>>



8700	
Fittings	Dimension L (mm)
Rc1/4	102
1/4SWL	127.4
1/8SWL	122.8
1/4VCR	123.8

8750	
Fittings	Dimension L (mm)
Rc3/8	144
3/8SWL	162.4
1/2SWL	166.4
1/2VCR	163.4

## Standard Specifications

MODEL	8700MC / MM	8750MC / MM
Sensor type	Thermal sensor	
Valve type	Proportional solenoid valve (normally closed)	
Applicable gas	N <sub>2</sub> , Air, H <sub>2</sub> , He, Ar, O <sub>2</sub> , CO <sub>2</sub> , etc.	
Full-scale flow rate (N <sub>2</sub> equivalent)	10SCCM to 20SLM	30 to 100SLM
Control range	2 to 100%F.S.	5 to 100%F.S.
Response	Within 2sec. (within $\pm 2\%$ F.S.)	Within 3sec. (within $\pm 2\%$ F.S.)
Accuracy	$\pm 1\%$ F.S. (25°C)	$\pm 1.5\%$ F.S. (25°C)
Temperature coefficient	$\pm 0.1\%$ F.S./°C (15 to 35°C)	$\pm 0.2\%$ F.S./°C (15 to 35°C)
Repeatability	$\pm 0.5\%$ F.S.	
Operating differential pressure	F.S. $\leq$ 5SLM 50 to 300kPa	F.S. $\leq$ 50SLM 150 to 300kPa
	F.S. $>$ 5SLM 100 to 300kPa	F.S. $>$ 50SLM 200 to 300kPa
Max. inlet pressure	500kPa(G)	
Proof pressure	1MPa(G)	
He Leak rate	$\leq 1 \times 10^{-8}$ Pa·m <sup>3</sup> /s	
Allowable ambient temperature	5 to 45°C	
Allowable storage temperature	-10 to 60°C	
Allowable ambient humidity	10%RH to 90%RH (no dew condensation)	
Materials of parts in contact with gases	SUS316, SUS316L, Magnetic stainless steel (MFC only), FKM (option: NBR or CR)	
Electrical connection	D-sub half pitch 20 pins, Hirose DX10M-20S	
Flow rate setting signal	0 to 5VDC (Input impedance: 100k $\Omega$ or more) / 4 to 20mA (Input impedance: Approx. 250 $\Omega$ )	
Flow rate output signal	0 to 5VDC (Load resistance: 250k $\Omega$ or more) / 4 to 20mA (Load resistance: 300 $\Omega$ or less)	
Digital communication	RS485	
Display	4-digit 7-segment LED	
Power supply	24VDC ( $\pm 10\%$ ), 300mA or less	
Fittings	Standard: Rc1/4	Standard: Rc3/8
	Option: 1/4SWL type, 1/8SWL type, 1/4VCR type	Option: 3/8SWL type, 1/2SWL type, 1/2VCR type
Weight	Approx. 1,200g	Approx. 1,500g

\* Use with a dry and clean gas containing no corrosive components, dust or mist.

\* Accuracy assurance with calibration gas.

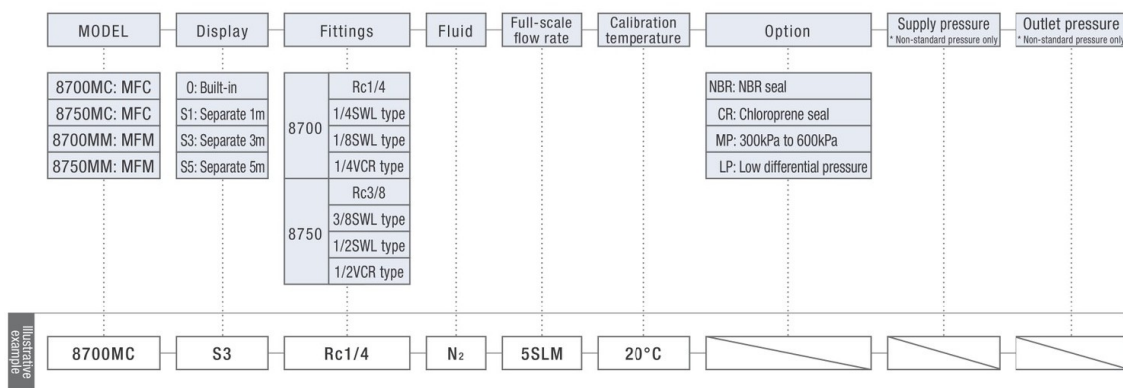
\* He leak rate does not include permeation.

Leakage (reference value) by long-time permeation is  $1 \times 10^{-6}$ Pa·m<sup>3</sup>/sec. or less.

\* Analog input/output are changeable with the display (0 to 5VDC at factory default).

\* The valve type, control range, response, operating differential pressure and flow rate setting signal are only for the mass flow controller.

## Ordering



\* For MP option (100SCCM or more in N<sub>2</sub> equivalent) and LP option (20SLM or less in N<sub>2</sub> equivalent), specify specific pressure conditions.

\* MP option is limited to the use under the specified pressure conditions only.

\* See Page 45 for the power adaptor PSK-85CE.

See Page 46 for the external cable CP-STD6.

\* 'SWL type' and 'VCR type' are shortened to SW and VCR in Ordering code.