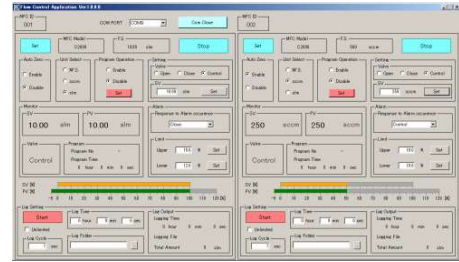


Digital Mass Flow Controller
With Built-in Display
2000 series



◀Features▶

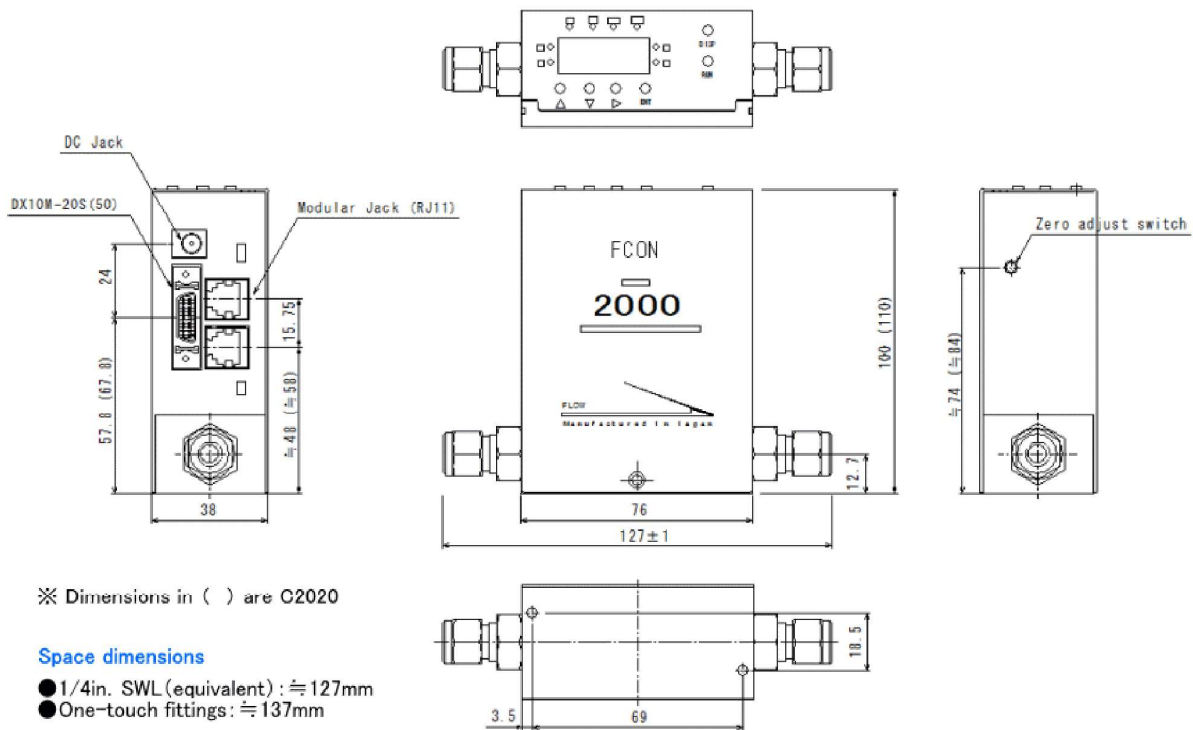
- Built-in display setting unit, setting control is possible only with the main unit.
- Driving power is DC24V single power supply (500mA or more AC adapter can be used).
- Compact size to realize small size and space saving.
- Simple installation to various equipment.
- Digital communication: RS485 communication.
- Analog signal: 0-5V and 4-20mA can be switched.
- Equipped with an abnormal flow rate alarm function.
- Equipped with accumulation function.
- Digital Control Application Software.
- Upon request, Calibration certificate, Calibration report, and Traceability scheme can be prepared with additional charges.



【Specification】

Mass Flow Controller	C2005		C2020	
Mass Flow Meter	M2005		M2020	
Flow range (N2 equivalent)	10 SCCM~5SLM		10 SLM	20 SLM
Gases	Air, nitrogen, carbon dioxide, argon, hydrogen, helium, oxygen			
Valve type	Normally Closed (Excluding Mass Flow Meter)			
Flow rate control range	2-100% F.S. (Excluding Mass Flow Meter)			
Accuracy	±1% F.S. (Accuracy guaranteed between 15-35°C)			
Setting signal	Setting section of main unit, Digital: RS485, Analog: 0-5V and 4.3-20mA can be switched (Excluding Mass Flow Meter)			
Output signal	Main unit display: 7-segment LED, Digital: RS485, Analog: 0-5V and 4-20mA can be switched			
Repeatability	±0.2% F.S.			
Response speed	≤2sec			
Operating differential pressure	50-300 kPa	100-300 kPa	200-300kPa	
Pressure resistance	1 MPa(G)			
Operating temperature	5~50°C (Accuracy guaranteed between 15~35°C)、≤85%RH (No condensation permitted)			
Leak integrity	1×10 ⁻⁷ Pa·m ³ /sec He			
Mounting attitude	Not Specified (Free)			
Drive power source	+24VDC : ≥500mA			
Communication	RS485, Analog: 0-5V and 4-20mA can be switched			
Wetted surface material	SUS316, PTFE, Fluoro-Rubber			
Seal material	Fluoro-Rubber			
Actuator system	Solenoid (Excluding Mass Flow Meter)			
Surface finishing	Machined finish			
Standard fitting	1/4in.SWL (equivalent) ※ For other fitting, please contact us.			

《Dimensions》



《Ordering》

C 2005 – 4S2 – 1L – N2

① ② ③ ④ ⑤

① Type

C Controller
M Meter

④ Full scale(*2)

50 50 SCCM
5L 5 SLM
10L 10 SLM

*1. For other fitting, please contact us.

*2. At FCON, flow rates (SCCM, SLM) are converted to values at 0°C, 101.3kPa abs (1atm) for calibration.

Please specify separately if you wish to calibrate at 20 °C or 25 °C.

*3. Gas type is an example; please contact us for other gases.

② Series

2005 10 SCCM ~ 5 SLM
2020 10 SLM, 20SLM

⑤ Type of gas (*3)

N2, Air, O2, H2, He
CO2 etc.

③ Fittings (*1)

4S2 1/4in.SWL(equivalent)
KQ2 One-touch fittings

《Signal cable》 (sold separately)

- AC adapter for C2000 : +24 VDC (DC22.8 ~ 25.2V, 500 mA and above) (recommend)
- C2000 RS485 Communication Conversion Unit with Digital Control Application Software
- C2000 RJ11 – RJ11 Communication Cable
- Analog Communication Cable

Please feel free to contact us for more details.

The contents of this catalog are subject to change without notice.

Economical Mass Flow Controller

1000 Series



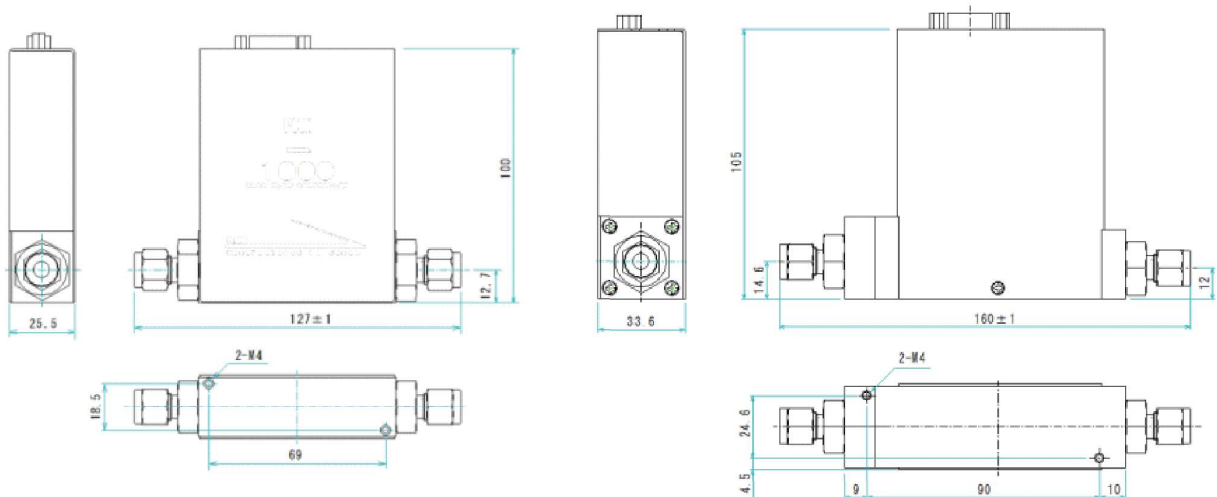
«Features»

- It is an analog model specializing the basic functions of the mass flow controller.
- Improved performance and reliability by basic functions pursuing original technology.
- Two types of Power Supply Control, Floor-standing "PA01S" and Panel Mount "PA01PS".
- Compact size.
- Suppression of Flow surge (overshoot) at the start (Requires more than 30 seconds of interval).
- Input & Output Signal : Analog (0~5VDC)
- To control the mass flow controller, a separate control power supply and a signal cable are required.
- Upon request, Calibration certificate, Calibration report, and Traceability scheme can be prepared with additional charges.
- 1000 series has a flow rate accuracy of $\pm 1\%$ F.S. Can be supported.

[Specification]

Mass Flow Controller	C1005	C1020	C1030/C1050	C1100
Mass Flow Meter	M1005	M1020	M1030/M1050	-
Flow range (N2 equivalent)	10,20,30,50 SCCM 100,200,300,500 SCCM 1,2,3,5 SLM	10,20 SLM	30,50 SLM	100 SLM
Gases	Various Gases (Please consult with us about corrosive gas)		Air • N2 • Ar • H2 • CO2 O2 • He	Air • N2
Valve type	Normally Open (Excluding Mass Flow Meter)			
Flow rate control range	5-100% F.S (Excluding Mass Flow Meter)			
Accuracy	$\pm 2\%$ F.S (Accuracy guaranteed between 15-35°C)			
Setting signal	0.25-5VDC (Excluding Mass Flow Meter)			
Output signal	0-5VDC			
Repeatability	$\pm 0.2\%$ F.S.			$\pm 0.5\%$ F.S.
Response speed	≤ 6 sec			≤ 15 sec
Operating differential pressure	50-300 kPa		200-300 kPa	
Pressure Resistance	1 MPa(G)			
Operating temperature	5~50°C (Accuracy guaranteed between 15~35°C)、 $\leq 85\%$ RH (No condensation permitted)			
Leak Integrity	1×10^{-7} Pa·m ³ /sec He			
Mounting attitude	Not Specified (Free)			
Drive power source	+15VDC : 60mA、-15VDC : 150mA			
Communication	Analog 0-5 VDC			
Wetted surface material	SUS316, PTFE, Fluoro-Rubber			
Seal material	Fluoro-Rubber			
Actuator system	Thermal (Excluding Mass Flow Meter)			
Surface Finishing	Machined finish			
Standard fittings	1/4in.SWL (equivalent), One-touch fittings, ※ For other fitting, please contact us.			

«Dimensions»



C1005/M1005

Space dimensions

1/4in. SWL (equivalent) : 127mm
One-touch fittings : 137mm

C1020~1050/M1020~1050/C1100

Space dimensions

1/4in. SWL (equivalent) : 160mm
One-touch fittings : 169mm

«Ordering»

C 1005 - 4S2 - 5L - N2

① ② ③ ④ ⑤

① Type

C Controller
M Meter

② Series

1005 10 SCCM ~ 5 SLM
1020 10 ~ 20 SLM
1030 30 SLM
1050 50 SLM
1100 100 SLM

③ Fitting (*1)

4S2 1/4in.SWL(equivalent)
6S2 3/8in.SWL(equivalent)
KQ2 One-touch fittings

④ Full scale (*2)

50L 50 SCCM
5L 5 SLM

⑤ Gas types (*3)

N2, Air, O2, H2, He
CO2 etc.

*1. For other fitting, please contact us.

*2. At FCON, flow rates (SCCM, SLM) are converted to values at 0°C, 101.3kPa abs (1atm) for calibration.

Please specify separately if you wish to calibrate at 20 °C or 25 °C.

*3. Gas type is an example; please contact us for other gases.

«Signal cable»

When purchasing the mass flow controller, it is possible for us to produce signal cables and replacement cables for the power supply control currently in use. In the situation whereby the shape of the signal cable connector from the equipment is different, if the information of the connector shape and pin assignment is available, we can manufacture the signal cables in addition to the standard products. Depending on the type of connector, it may be difficult to manufacture. Please feel free to contact us for more details.

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