

Compact, high speed, multifunction solution

- F.R.L.
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filtr
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/ PTFE FRL
- Outdrs FRL
- Adapter Joiner
- Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/ other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

Microcomputer attains high accuracies and multi-functions

High speed micro machined sensor chip incorporated

Stainless steel body

■ Applicable fluids/Flow rates

AIR N₂
0.015 to 50 L/min.

Ar
0.015 to 50 L/min.

O₂ 13A CH₄ C₃H₈
0.015 to 10 L/min.

H₂ He
0.06 to 20 L/min.

■ Weight/approx. 480 g

Rectifier mechanism improves low pressure loss and repeatability

Ultimate ideal multi-function flow controller

Compact flow rate controller RAPIFLOW FCM

RAPIFLOW FCM Series

Resin body

■ Applicable fluids/Flow rates

AIR N₂
0.015 to 100 L/min.

■ Weight/approx. 200 g



Merging the small size flow sensor FSM and small solenoid valve technologies. The small size flow controller FCM Series is equipped with sensor functions, proportional control functions and valve functions, all of which have high performance and economic efficiency. This series supports various applications.

Compatible with various fluids

This series supports various gases including air, nitrogen, argon, oxygen, methane and propane. The new series is compatible with hydrogen and helium, allowing use with a variety of applications.

New low differential pressure model

Now capable of controlling burner flame or other fuel gases with low supply pressure.

Compact and light weight

The size is just 70H × 70D × 30W. Install in a confined space or on a moving place to downsize and lighten your system.

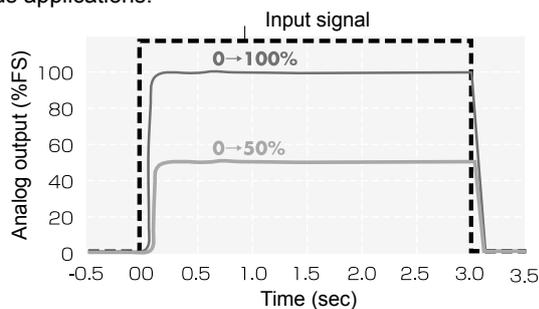
Volume reduction compared to previous model (approx) **30%**

Weight reduction compared to previous model (approx) **20%**



0.5 second high speed control

The platinum sensor chip using silicone micro machining achieves 0.5 second high speed control, enabling use in various applications.



Dedicated power supply not required

A 24 VDC power voltage allows operation with general-purpose single supplies.

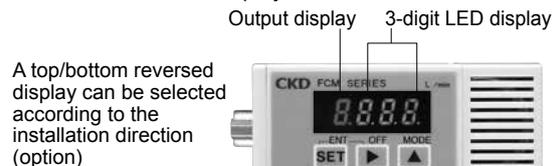
Highly reliable flow control

CKD's original rectifier control enhances the repeatability affecting flow controllability.

Repeatability	$\pm 1\%$ FS
Precision	$\pm 3\%$ FS

Digital display shows the control state at a glance

- The flow value is displayed digitally with three digits.
- The output state (switch output ON-OFF) is displayed in addition to the error display.



Parallel input type available as a standard

Controllable with parallel input(ON/OFF signal for PLC, 10-bit resolution 1024). An analog input/output device, such as a D/A converter, is no longer needed.



Multi functions with microcomputer

- Error display function**
Errors are displayed and notified with electrical signals.
- Zero/span adjustment function**
Zero and span can be adjusted according to the usage methods.
- Preset input function**
Flow rate can be adjusted by setting 4 random flow rate points with 2-bit signal inputs from an external source (signals from PLC, etc.).
- Direct memory function**
Control flow rate can flexibly be adjusted with the product's operation keys even without input signals from an external source.
- Switch output function**
A switch output function using the flow rate's upper/lower limit settings is incorporated. (Built-in overcurrent protection)
- Flow rate integrating function**
Integral display of the flow rate (max. 6 digits) and pulse outputs for integration are possible.
- Automatic shutoff function**
The valves are automatically shut off in an emergency, such as when an error occurs.

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Gas generator
RefrDry
DesicDry
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Used in various fields

RAPIFLOW is available for a wide variety of applications in industries such as machinery, automobiles and precision components, cutting-edge fields such as semiconductors and biotechnology, medical care, foodstuff, and more.

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		Flow rate (L/min)			
		0.1	1	10	100
Applicable fluids	Dry air	<p>Semiconductor Wire bonding</p> <p>Ideal for tension control of wire bonding that requires high precision.</p>			
		<p>Liquid crystal Floating transport system of glass</p> <p>Ideal for float (non-contact) transportation of large FPD glass.</p>			
		<p>Liquid crystal Flow rate management of ionizer purge gas</p> <p>Available with a broad flow rate range. Flow rate control of air is possible.</p>			
N ₂	<p>Foodstuffs Filling and packaging</p> <p>Ideal for inert gas filling of food packaging, etc.</p>				
	<p>Semiconductor Purge gas flow rate control</p> <p>Available with a broad flow rate range. Flow rate control of purge gas can be done.</p>				
	<p>Control of N₂ gas in laser oscillator and semiconductor manufacturing equipment</p>				
Ar	<p>Automobiles, other Flow rate control of argon gas for welding</p> <p>Available with a broad flow rate range. Flow rate control of argon gas for welding is possible.</p>				
	<p>Glass processing Burner flame control</p> <p>Suitable for controlling burner flame by allowing low pressure gas supply.</p>				
Flammable gas	O ₂				
	H ₂				