



Features



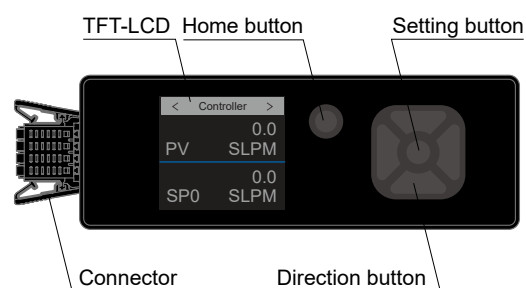
User manual



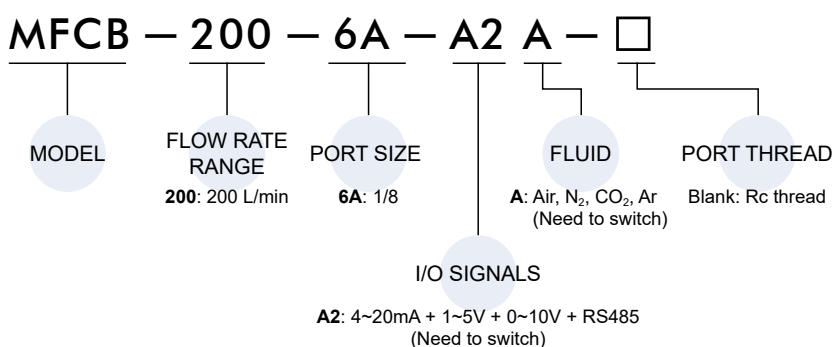
Features

- 65K Full color TFT-LCD display
- 4 Directions display for easy setup and viewing
- Response time < 0.3 S
- Switchable analog input/output and switch output
- RS485 Modbus RTU
- Applicable industries: Semiconductor, Laser Welding, IoT

Panel description



Order example



Mounting accessories

MP — A33

MOUNTING
BRACKET

Specifications

Model				MFCB	
Valve type				Proportional solenoid valve normally closed when power off (N.C.)	
Fluid				Non-corrosive / Non-flammable gas: Dry air, N ₂ , CO ₂ , Ar	
Flow rate				200 L/min	
Display	Display			1.3" 65K Full color TFT-LCD display	
	Flow control	Display range		0 ~ 100 % F.S.	
		Minimum Setting scale	LPM	1 L/min	
			CFM *1	1 ft³/min	
	Pressure	Display range		-101 ~ 700 kPa	
		Minimum Setting scale	kPa	1	
			MPa	0.001	
			kgf/cm²	0.01	
			bar	0.01	
			psi	0.1	
	Temperature	Display range		0~50°C / 32~122 °F (Non-freezing)	
		Minimum Setting scale	°C	0.1	
			°F	0.1	
Humidity	Display range		10 ~ 90% RH		
	Minimum setting scale		0.1 % RH		
Accuracy	Flow control *2	Control accuracy		± 3% F.S.	
		Repeatability		± 1% F.S. ± 1 digit	
		Temp. characteristic *3		± 5% F.S.	
		Pressure characteristic *4		± 2% F.S.	
	Pressure	Indicator accuracy		± 2% F.S.	
		Repeatability		± 0.1% F.S.	
	Temperature	Indicator accuracy		± 0.2 °C	
	Humidity	Repeatability		± 5.5 % RH	
	Analog input and output			± 1 % F.S.	
Switch output *5	Switch output		NPN open collector output Max. load current : 200 mA Max. supply voltage : 24 V DC Voltage drop : ≤ 1.5 V	PNP open collector output Max. load current : 200 mA Max. supply voltage : 24 V DC Voltage drop : ≤ 1.5 V	
	Output mode	Flow control	Tolerance mode, error mode		
	Response time	Flow control	0.3 s (typ.) to the setting ± 2 % F.S.		
Analog input and output *5				DC 1 ~ 5 V, 0 ~ 10 V, 4 ~ 20 mA	
Communication interface				RS485 Modbus RTU	
Power	Power supply voltage			DC 24 V ± 10 %	
	Current consumption			≤ 300 mA	
Environment	Standard operating differential pressure			350 kPa (Inlet pressure : 350 kPa, Outlet pressure: 0 kPa)	
	Operating differential pressure range *6			350 ~ 500 kPa	
	Maximum operating pressure *7			700 kPa	
	Enclosure			IP40	
	Working fluid temp.			5 ~ 50 °C (No condensation or freezing)	
	Ambient temp. range			Operation : 5 ~ 50 °C ; Storage : -10 ~ 60 °C (No condensation or freezing)	
Ambient humidity range			Operation / Storage: 35 ~ 85 % R.H. (No condensation)		
Accessories				2M cable	
Weight				685 g	

*1. In CFM (ft³/min), actual value equals displayed value × 0.01.

*2. Based on dry compressed air and measured by our standard flow meter as a reference for other gas.

*3. Benchmark : 25 °C (Temperature range: 0 ~ 50 °C)

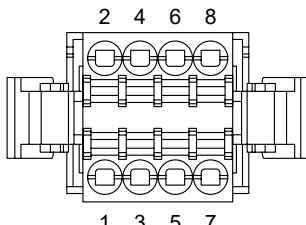
*4. Benchmark : Inlet pressure : 350 kPa, Outlet pressure : 1 atmospheric pressure, 25 °C

*5. Switchable, please follow the manual for setup.

*6. The minimum operating differential pressure is the pressure differential required to achieve full scale flow with the secondary side released to atmosphere.

*7. The maximum operating pressure is the maximum primary side pressure.

Pin No.

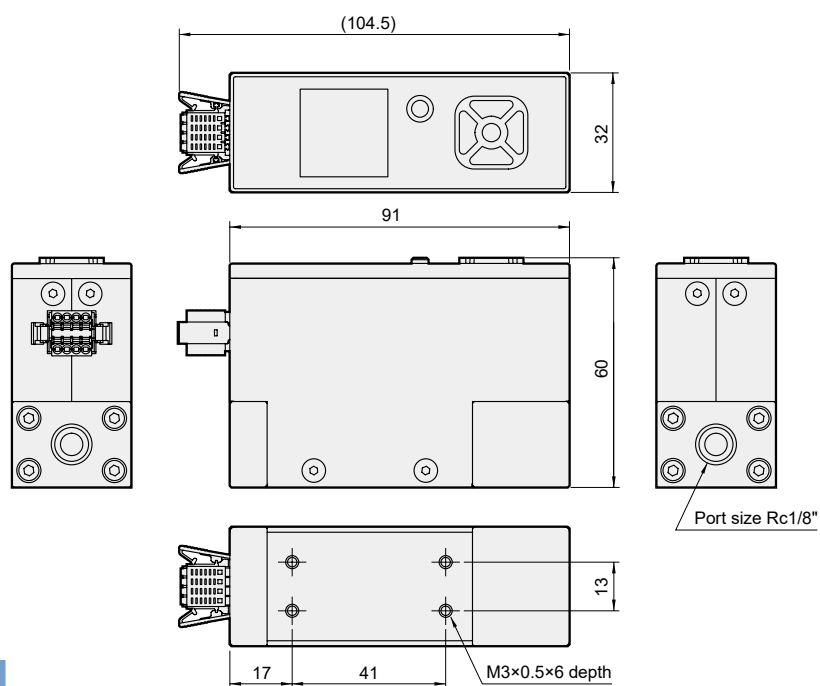
Pin	Description	Connector fig
1	+ 24V DC	
2	Analog input 1 ~ 5V or 0 ~ 10V or 4 ~ 20mA	
3	RS485 A+	
4	Analog output 1 ~ 5V or 0 ~ 10V or 4 ~ 20mA	
5	Not Used	
6	Switch output NPN or PNP	
7	RS485 B-	
8	0V	

* Applicable wire: 20 ~ 24AWG

* Connector model : 0156-1C08-BK (Brand : Dinkle)

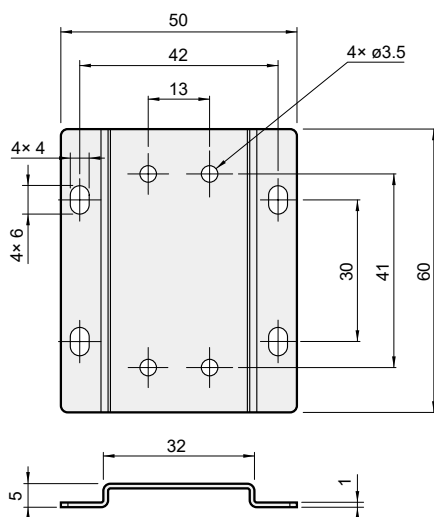
* Please use a 2.5 mm flathead screwdriver.

Dimensions



MP-A33

Mounting bracket



Bracket mounting

