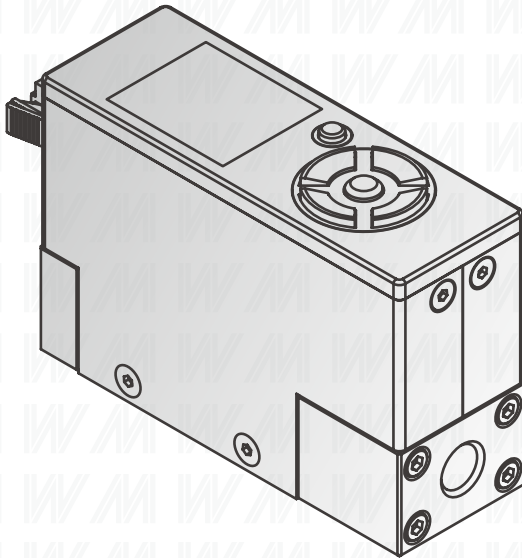


# MFCB

## Mass Flow Controllers

User Manual E1.1



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## Warranty

All products manufactured by Mindman are under warranty regarding defective materials for a period of one year, starting from the date of delivery to the original purchaser.

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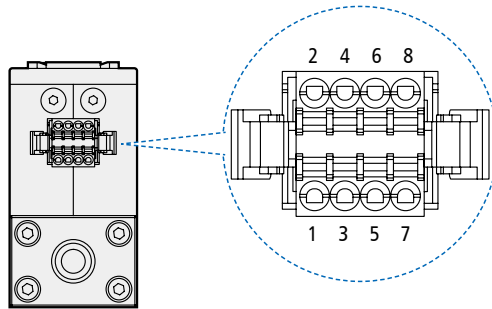
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## Contact us

If there has any question, please contact Mindman right away. Thanks.

# 1. Installation Instructions

## 1.1 Wiring Method



Pin	Description
1	+ 24V DC
2	Analog input 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

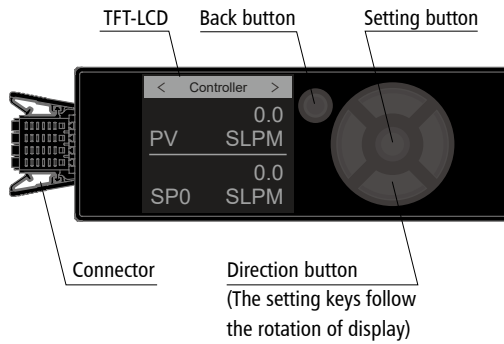
\* Cable: 20 ~ 24AWG (Before use, confirm the wire colors corresponding to each pin.)

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

\* Please use a 2.5 mm flat screwdriver.

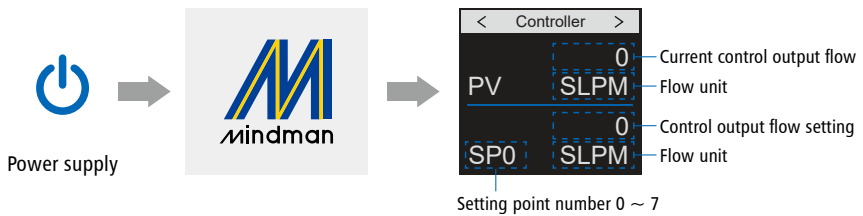
## 2. Product User Guide

### 2.1 Panel Description



### 2.2 Function Description

- Measurement Mode
  - Power on to the Controller screen

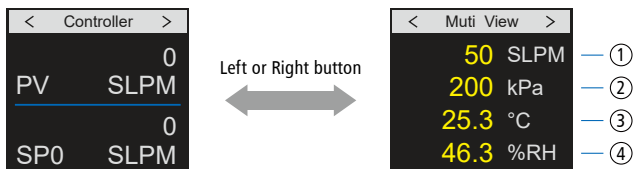


## 2.2 Function Description

### ● Measurement Mode

#### ■ Multi-view display (Muti View)

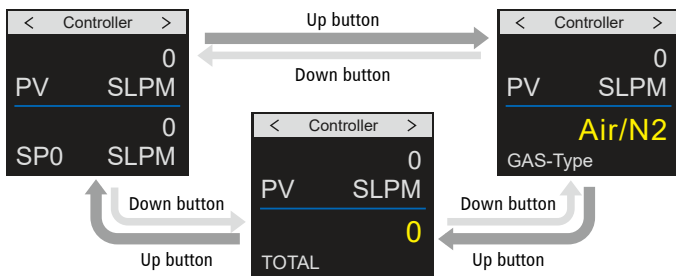
Press the left or right button on the Controller screen to switch to the Multi View screen.



- ① The current flow rate of control output.
- ② Display pressure value.
- ③ The internal temperature of the product pipe.
- ④ The relative humidity inside the product pipe.

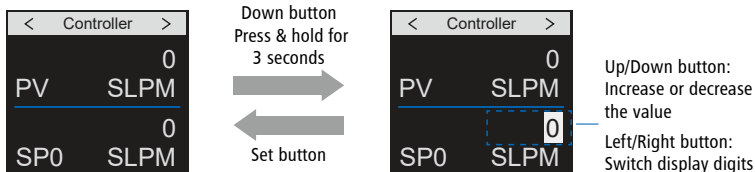
#### ■ Gas Type and Total cumulative flow display

Press the up or down button on the Controller screen to switch.



#### ■ Directly set control flow value

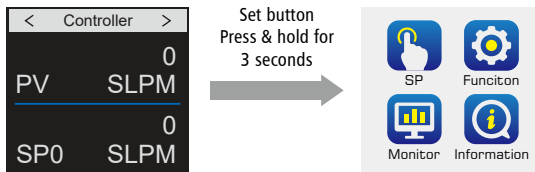
On the Controller screen, press the button for 3 seconds to directly set the SPx value (SP CTRL must be in SPx mode).



## 2.2 Function Description

### ● Function Mode

On the Controller screen, press the Set button for about 3 seconds to enter the function menu. Use the Up, Down, Left, and Right buttons to select, then press the Set button to enter the setting screen.



## 2.3 Function Operation Guide

● **SP: Flow Control Value Setting**

Use the up/down/left/right keys to access the SP settings.

Use the up/down keys to select the desired setting item.



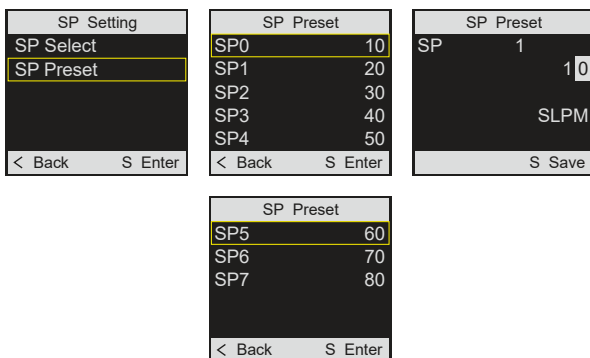
■ **SP Select Setting**

Set the flow control point number, with a configurable range of 0~7.



■ **SP Preset Setting**

Set the flow value for each flow control point number, within a range of 0~100% F.S.

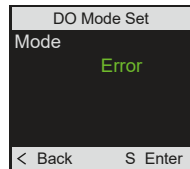
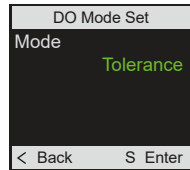
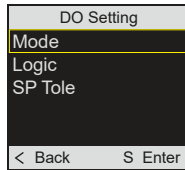
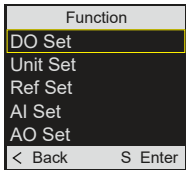
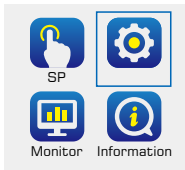


## 2.3 Function Operation Guide

● **Function: Function-Related Parameter Settings**

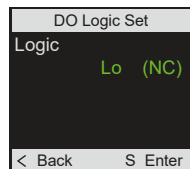
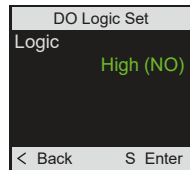
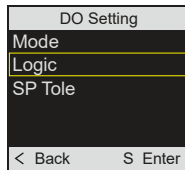
Use the up, down, left, and right keys to enter the Function settings.

- **DO Set (Digital Output Settings):** Configure the operation mode of the digital output.



↑  
Switch  
Up / Down  
button  
↓

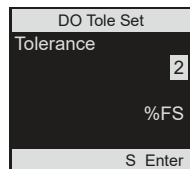
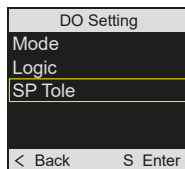
Set the output logic.



↑  
Switch  
Up / Down  
button  
↓

Set the range value for the Tolerance mode, with a setting range of 1 ~ 50% F.S.

When the output is set to the Error mode, SP Tole cannot be configured.

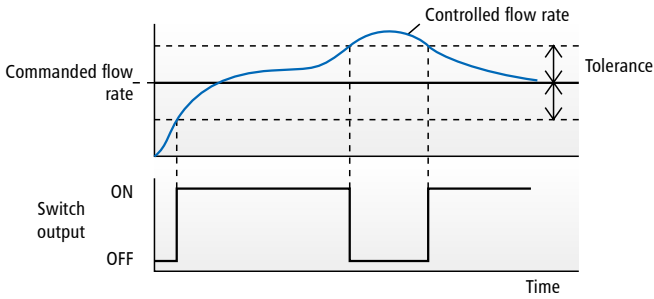


## 2.3 Function Operation Guide

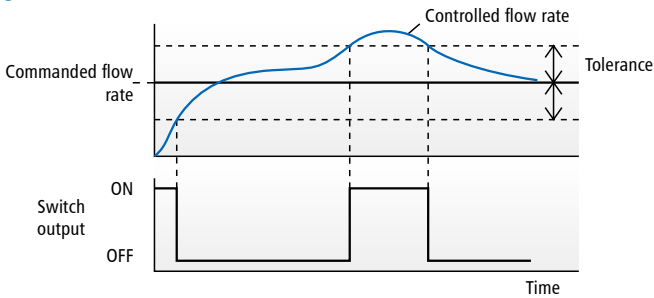
● Function: Function-Related Parameter Settings

Tolerance Mode

Logic: High (NO)

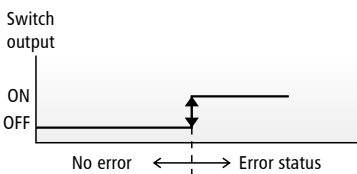


Logic: Lo (NC)

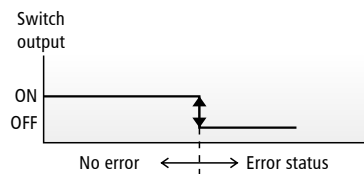


Error Mode

Logic: High (NO)



Logic: Lo (NC)

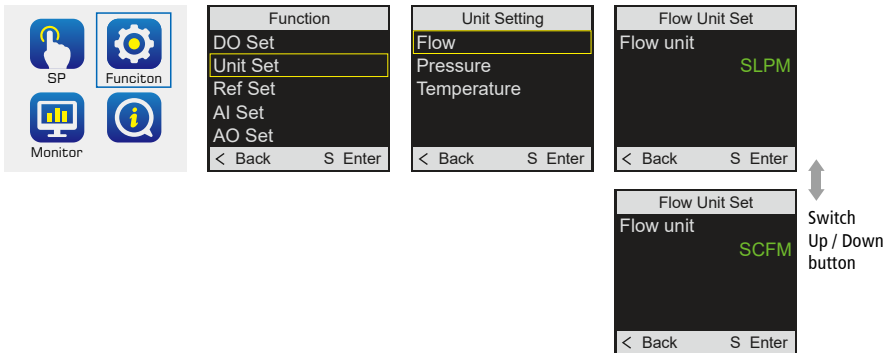


## 2.3 Function Operation Guide

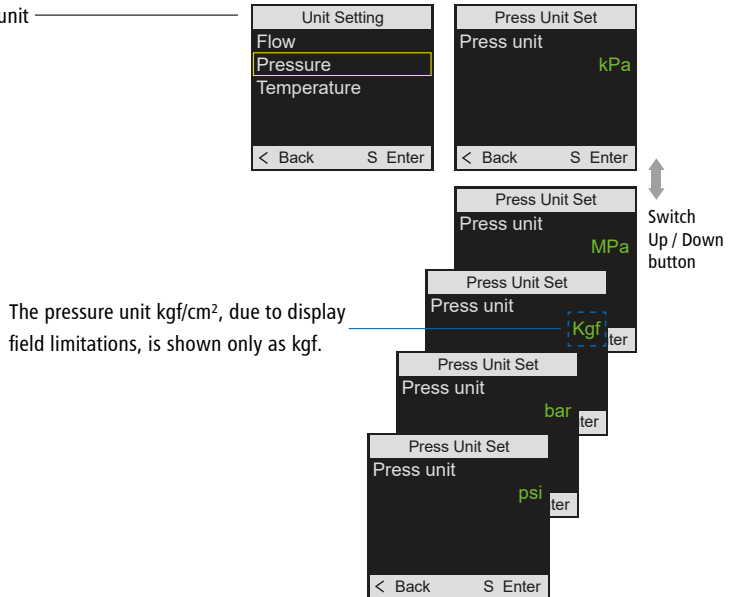
- Function: Function-Related Parameter Settings

- Unit set

Setting flow unit



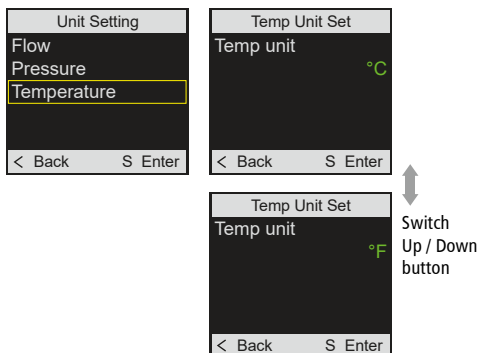
Setting pressure unit



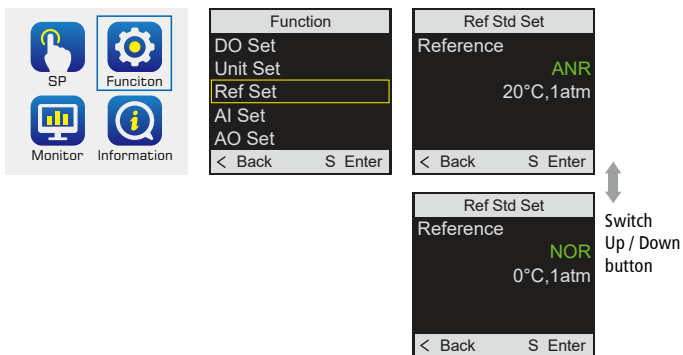
## 2.3 Function Operation Guide

- Function: Function-Related Parameter Settings
  - Unit set

Setting temperature unit



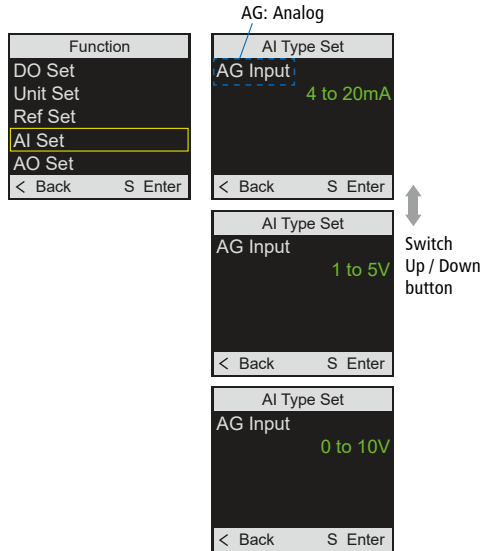
- Ref Set (Flow measurement reference standard setting)



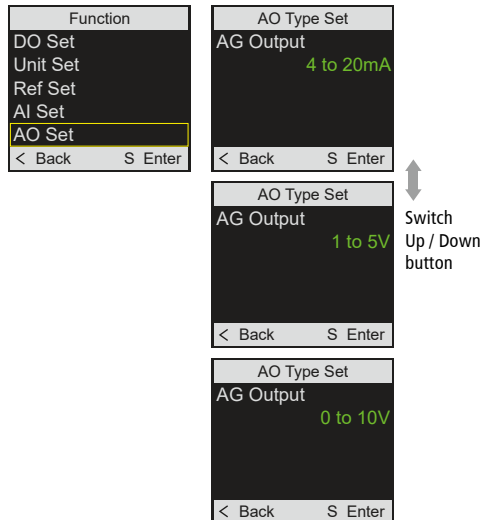
## 2.3 Function Operation Guide

● Function: Function-Related Parameter Settings

■ AI Set (Analog input type setting)

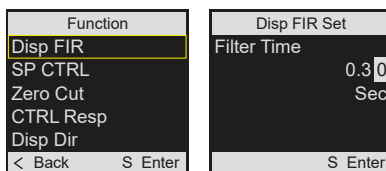


■ AO (SetAnalog output type setting)

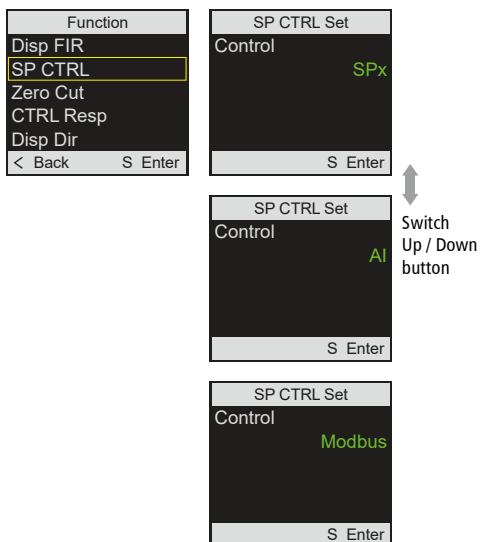


## 2.3 Function Operation Guide

- Function: Function-Related Parameter Settings
  - Disp FIR (PV value display filter time setting)
    - Set the display filter time range to 0.01~10.00 seconds.



- SP CTRL (Setpoint control method selection)
  - When SP CTRL is set to SPx, the SP value can also be set via Modbus communication, which will control the flow rate.



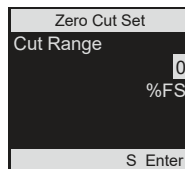
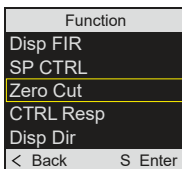
## 2.3 Function Operation Guide

● Function: Function-Related Parameter Settings

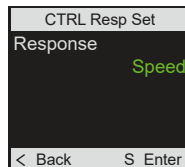
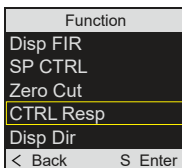
■ Zero Cut (Flow zero point masking)

Set the flow zero point masking range from 0~10% FS.

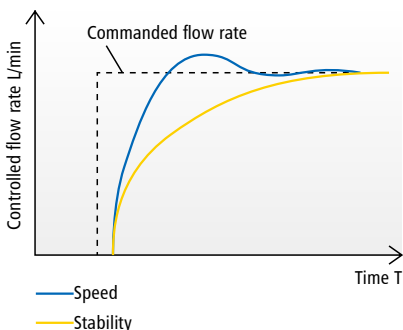
Example: Set to 2% FS. When the control output flow setting is  $\leq 4$  LPM, the current control output flow will display as 0.



■ CTRL Resp (Flow control response setting)



↑↓  
Switch Up / Down button

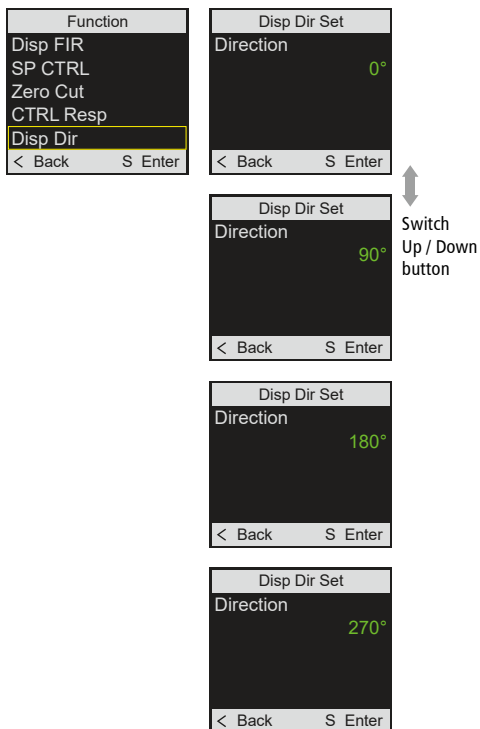


## 2.3 Function Operation Guide

● Function: Function-Related Parameter Settings

■ Disp Dir (Display direction angle setting)

When the display direction changes, the button functions will also change accordingly.

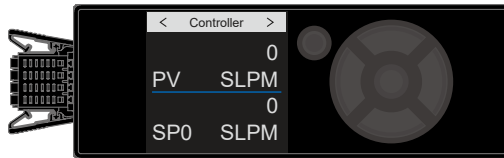


## 2.3 Function Operation Guide

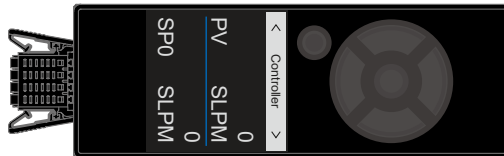
- Function: Function-Related Parameter Settings

- Disp Dir (Display direction angle setting)

Direction 0°



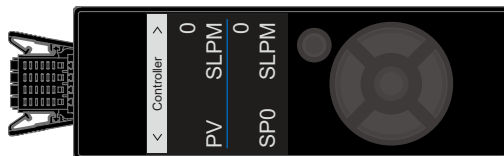
Direction 90°



Direction 180°



Direction 270°

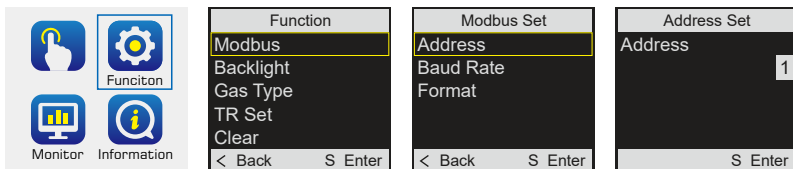


## 2.3 Function Operation Guide

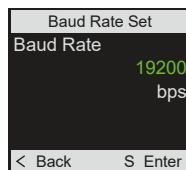
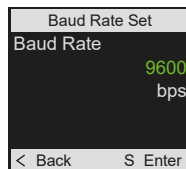
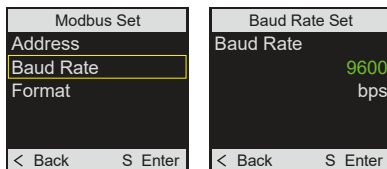
- Function: Function-Related Parameter Settings

- Modbus (Modbus communication settings)

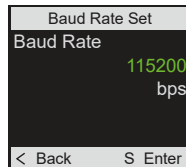
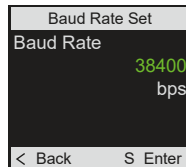
Set the Modbus Address range 1~255.



Set the transmission baud rate



↑  
Switch  
Up / Down  
button



## 2.3 Function Operation Guide

- Function: Function-Related Parameter Settings

- Modbus (Modbus communication settings)

Set transmission format

Modbus Set	
Address	
Baud Rate	
Format	
< Back	S Enter

Format Set	
Format	N,8,1
< Back	S Enter

Format Set	
Format	N,8,2
< Back	S Enter

Format Set	
Format	O,8,1
< Back	S Enter

Format Set	
Format	E,8,1
< Back	S Enter

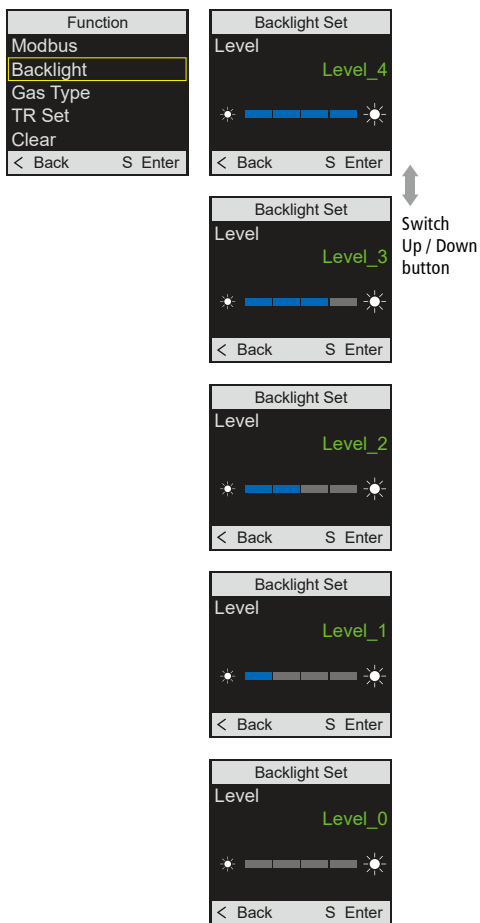
↑  
Switch  
Up / Down  
button  
↓

## 2.3 Function Operation Guide

● Function: Function-Related Parameter Settings

■ Backlight (LCD backlight brightness control)

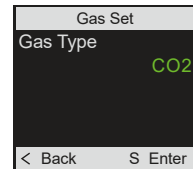
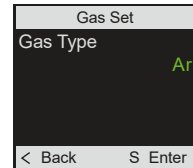
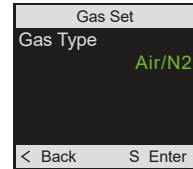
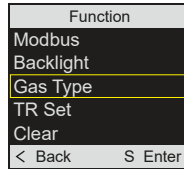
The higher the level, the brighter the backlight.



## 2.3 Function Operation Guide

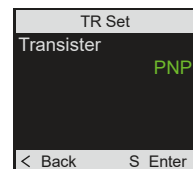
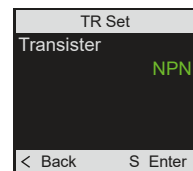
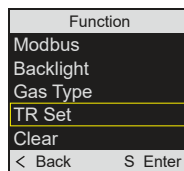
### ● Function: Function-Related Parameter Settings

#### ■ Gas Type (Gas type setting)



↑  
↓  
Switch  
Up / Down  
button

#### ■ TR Set (Output crystal setting)



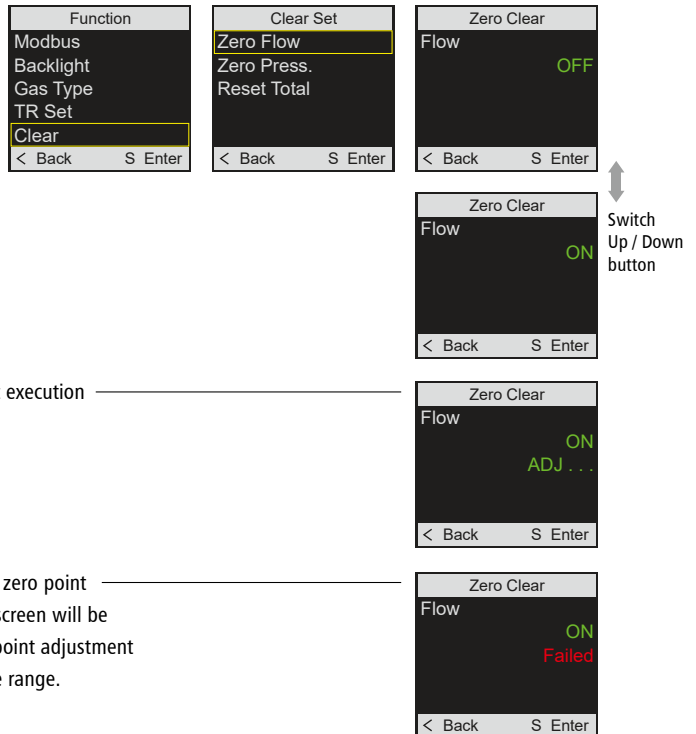
↑  
↓  
Switch  
Up / Down  
button

## 2.3 Function Operation Guide

- Function: Function-Related Parameter Settings

- Clear (Zeroing setting) – Flow value

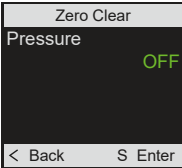
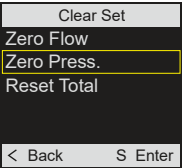
Flow (PV) zero point adjustment  $\pm 5\%$  F.S.



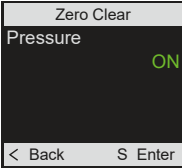
Caution: Ensure that the airflow within the channel is at a standstill when performing this function.

### 2.3 Function Operation Guide

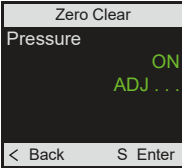
- Function: Function-Related Parameter Settings
  - Clear (Zeroing setting) – Pressure value  
Pressure zero point adjustment ± 3% F.S.



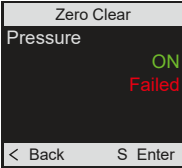
↑  
Switch  
Up / Down  
button  
↓



Zero point adjustment execution

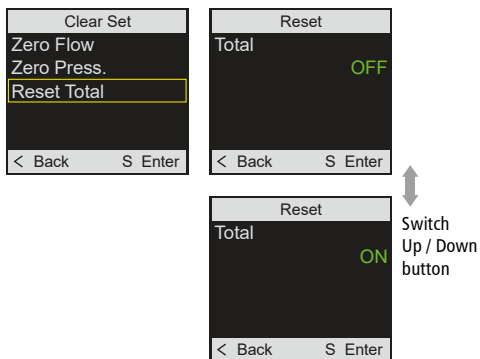


When performing the zero point adjustment, an error screen will be displayed if the zero point adjustment exceeds the allowable range.

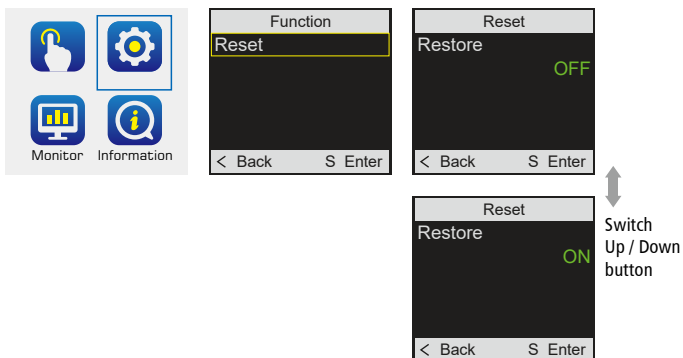


## 2.3 Function Operation Guide

- Function: Function-Related Parameter Settings
  - Clear (Zeroing setting) – Factory default value  
Reset accumulated flow



- Reset (Restore factory setting )



## 2.3 Function Operation Guide

### ● Function: Function-Related Parameter Settings

#### ■ Reset (Restore factory setting )

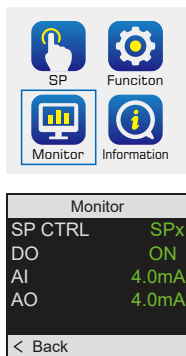
Set parameters to factory default values

Item	Factory default settings	Description
Setting point selection number	SP0	0 ~ 7
Setting point 0	0%F.S.	0 ~ 100%F.S.
Setting point 1	10%F.S.	0 ~ 100%F.S.
Setting point 2	20%F.S.	0 ~ 100%F.S.
Setting point 3	30%F.S.	0 ~ 100%F.S.
Setting point 4	40%F.S.	0 ~ 100%F.S.
Setting point 5	50%F.S.	0 ~ 100%F.S.
Setting point 6	60%F.S.	0 ~ 100%F.S.
Setting point 7	70%F.S.	0 ~ 100%F.S.
Digital switch mode	Tolerance	Tolerance, Error
Digital switch logic	High	Low(N.C), High(N.O)
Digital switch mode - tolerance range	2%F.S.	1 ~ 50%F.S.
Flow unit	SLPM	SLPM, SCFM
Pressure unit	kPa	kPa, MPa, kgf/cm <sup>2</sup> , bar, psi
Temperature Unit	°C	°C, °F
Flow reference standard	ANR	ANR, NOR
Analog input type	4~20 mA	4~20mA, 1~5V, 0~10V
Analog output type	4~20 mA	4~20mA, 1~5V, 0~10V
PV value display stability adjustment	0.30 Sec	0.01 ~ 10.00 Sec
SP setting method	SPx	SPx, AI, Modbus
Zero cut range	0% F.S.	0 ~ 10% F.S.
Flow control method	Speed	Speed, Stability
Display direction	270°	0°, 90°, 180°, 270°
Modbus address	1	1 ~ 255
Modbus transmission rate	9600 bps	9600, 19200, 38400, 115200 bps
Modbus transmission format	N,8,1	N,8,1; N,8,2; O,8,1; E,8,1
Backlight brightness control	Level_4	Level_0 (Darkest) ~ Level_4 (Brightest)
Gas type	Air, N <sub>2</sub>	Air, N <sub>2</sub> , Ar, CO <sub>2</sub>
Output crystal settings	NPN	NPN, PNP

## 2.3 Function Operation Guide

- Monitor: Monitoring Status

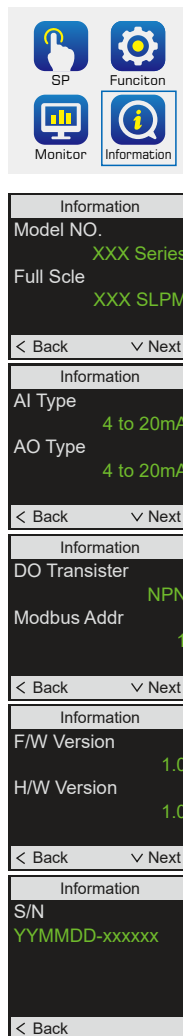
Use the up, down, left, and right keys to enter the Monitor



Display the SP CTRL settings, the status of DO (digital output), and the values of AI (analog input) and AO (analog output).

- Information: System Information

Use the up, down, left, and right keys to enter Information



## 3. Modbus RTU Command Instructions

### 3.1 Command Format

**Read:** Computer /PLC transmit data format (Signal Source)

ID number	Function code	Data address	Data number	CRC check sum
1 byte	1 byte	2 bytes	2 bytes	2 bytes

MFCB Returned data format

ID number	Function code	Data number	Data	CRC check sum
1 byte	1 byte	1 byte	2 bytes	2 bytes

**Write:** Computer /PLC transmit data format (Signal Source)

ID number	Function code	Data address	Data	CRC check sum
1 byte	1 byte	2 bytes	2 bytes	2 bytes

MFCB Returned data format

ID number	Function code	Data address	Data	CRC check sum
1 byte	1 byte	2 byte	2 bytes	2 bytes

Read/ Write function codes

Function code	Name	Action
03	Read	Read MFCB Parameters
06	Write	Write MFCB Parameters

\* The interval between sending commands is 100ms.

## 3.1 Command Format

Sample

Read the value of Setpoint 0

Computer /PLC transmit data format (Signal Source)

ID number	Function code	Data Address		Data number		CRC check sum	
0x01	0x03	0x07	0xD1	0x00	0x01	0xD5	0x47



MFCB Returned data format

ID number	Function code	Data number	Data		CRC check sum	
0x01	0x03	0x02	0x00	0x00	0xB8	0x44

Sample

Write a flow rate of 20 L/min to Setpoint 0

Computer /PLC transmit data format (Signal Source)

ID number	Function code	Data Address		Data		CRC check sum	
0x01	0x06	0x07	0xD1	0x00	0x14	0xD8	0x88



MFCB Returned data format

ID number	Function code	Data Address		Data		CRC check sum	
0x01	0x06	0x07	0xD1	0x00	0x14	0xD8	0x88

## 3.2 Error Codes

Error response cannot guarantee successful data write.

If an error occurs while writing data consecutively, it is possible that the data has been only partially updated. Please ensure you re-write the data with the correct information.

Error codes	Name
<b>0x01</b>	Illegal function
<b>0x02</b>	Illegal data address
<b>0x03</b>	Illegal data value
<b>0x20</b>	Response CRC did not match calculated CRC

## 3.3 Monitor Data Address (Code)

Data address	RAM/ROM	Read/write	Name	Data length (Byte)	Data type	Parameter description
0x03E8	RAM	R	Gas type	2	UINT16	0: Air/N <sub>2</sub>
						1: Ar
						2: CO <sub>2</sub>
0x03E9	RAM	R	Flow PV value	2	INT16	The flow measurement value depends on the unit and the type of gas. The value is without decimal points.
0x03EA	RAM	R	Flow unit	2	UINT16	0: LPM
						1: CFM
0x03EB	RAM	R	Flow decimal point	2	UINT16	0: No decimal point
						1: One decimal place (0.1)
						2: Two decimal places (0.01)
0x03EC	RAM	R	Cumulative flow - high word	2	UINT16	The cumulative flow is a combination of high and low words = 0 ~ 99999999 0x00000000 ~ 0x05F5E0FF
0x03ED	RAM	R	Cumulative flow - low word	2	UINT16	
0x03EE	RAM	R	Pressure value	2	INT16	The pressure measurement value depends on the unit. The value is without decimal points.
0x03EF	RAM	R	Pressure unit	2	UINT16	0: kPa
						1: MPa
						2: kgf/cm <sup>2</sup>
						3: bar
						4: psi
0x03F0	RAM	R	Pressure decimal point	2	UINT16	0: No decimal point
						1: One decimal place (0.1)
						2: Two decimal places (0.01)
						3: Three decimal places (0.001)

Continue

### 3.3 Monitor Data Address (Code)

Data address	RAM/ROM	Read/write	Name	Data length (Byte)	Data type	Parameter description
0x03F1	RAM	R	Temperature value	2	UINT16	The measured temperature value depends on the unit. The value is without decimal places.
0x03F2	RAM	R	Temperature unit	2	UINT16	0: Celsius °C 1: Fahrenheit °F
0x03F3	RAM	R	Temperature decimal places	2	UINT16	1: One decimal place (0.1)
0x03F4	RAM	R	Humidity value	2	UINT16	Measured humidity value. Without decimal places.
0x03F5	RAM	R	Humidity decimal places	2	UINT16	1: One decimal place (0.1)
0x03F6	RAM	R/W (*)	Flow online set point value	2	INT16	The measured flow value depends on the unit and gas type. The value is without decimal places.
0x03F7	RAM	R	Input current value	2	INT16	Without decimal places.
0x03F8	RAM	R	Input current value decimal places	2	UINT16	1: One decimal place (0.1)
0x03F9	RAM	R	Input voltage value	2	INT16	Without decimal places.
0x03FA	RAM	R	Input voltage value decimal places	2	UINT16	2: Two decimal places (0.01)
0x03FB	RAM	R	Output current value	2	INT16	Without decimal places.
0x03FC	RAM	R	Output current value decimal places	2	UINT16	1: One decimal place (0.1)
0x03FD	RAM	R	Output voltage value	2	INT16	Without decimal places.
0x03FE	RAM	R	Output voltage value decimal places	2	UINT16	2: Two decimal places (0.01)
0x03FF	RAM	R	Digital switch status	2	BIT[16]	0: OFF 1: ON

\* Flow online SP value setting. This can only be written when SP\_CTRL is set to Modbus.

## 3.4 Parameter Data Address (Code)

Data address	RAM/ROM	Read/write	Name	Data length	Data type	Parameter description
0x07D0	RAM/ROM	R/W	Setting point selection number	2	UINT16	0:SP0
						1:SP1
						2:SP2
						3:SP3
						4:SP4
						5:SP5
						6:SP6
7:SP7						
0x07D1	RAM/ROM	R/W	Setting point 0	2	UINT16	SP0 ~ SP7 flow values are set according to the unit and gas type, and the values do not include decimals
0x07D2	RAM/ROM	R/W	Setting point 1	2	INT16	
0x07D3	RAM/ROM	R/W	Setting point 2	2	INT16	
0x07D4	RAM/ROM	R/W	Setting point 3	2	INT16	
0x07D5	RAM/ROM	R/W	Setting point 4	2	INT16	
0x07D6	RAM/ROM	R/W	Setting point 5	2	INT16	
0x07D7	RAM/ROM	R/W	Setting point 6	2	INT16	
0x07D8	RAM/ROM	R/W	Setting point 7	2	INT16	
0x07D9	RAM/ROM	R/W	Digital switch mode	2	UINT16	0: Tolerance mode
						1: Error mode
0x07DA	RAM/ROM	R/W	Digital switch logic	2	UINT16	0: Logic Low (N.C)
						1: Logic High (N.O)
0x07DB	RAM/ROM	R/W	Digital switch - tolerance range	2	INT16	The tolerance percentage is set 1 ~ 50% F.S.
						0x0001 ~ 0x0032
0x07DC	RAM/ROM	R/W	Flow unit	2	UINT16	0: LPM
						1: CFM

Continue

### 3.4 Parameter Data Address (Code)

Data address	RAM/ROM	Read/write	Name	Data length (Byte)	Data type	Parameter description
0x07DD	RAM/ROM	R/W	Pressure unit	2	UINT16	0: kPa
						1: MPa
						2: kgf/cm <sup>2</sup>
						3: bar
4: psi						
0x07DE	RAM/ROM	R/W	Temperature unit	2	UINT16	0: Celsius °C
						1: Fahrenheit °F
0x07DF	RAM/ROM	R/W	Flow reference standard	2	UINT16	0: ANR
						1: NOR
0x07E0	RAM/ROM	R/W	Analog input mode	2	UINT16	0: 4 ~ 20mA
						1: 1 ~ 5V
						2: 0 ~ 10V
0x07E1	RAM/ROM	R/W	Analog output type	2	UINT16	0: 4 ~ 20mA
						1: 1 ~ 5V
						2: 0 ~ 10V
0x07E2	RAM/ROM	R/W	PV value display stabilization adjustment	2	INT16	0.01 ~ 10.00 Sec, value change without decimal points
						0x0001 ~ 0x03E8
0x07E3	RAM/ROM	R/W	SP setting method	2	UINT16	0: SPx
						1: AI
						2: Modbus
0x07E4	RAM/ROM	R/W	PV value zero display range	2	INT16	0 ~ 10% F.S.
						0x0000 ~ 0x000A
0x07E5	RAM/ROM	R/W	Flow control method	2	UINT16	0: Speed
						1: Stability

Continue

## 3.4 Parameter Data Address (Code)

Data address	RAM/ROM	Read/write	Name	Data length (Byte)	Data type	Parameter description
0x07E6	RAM/ROM	R/W	Display direction	2	UINT16	0: 90°
						1: 180°
						2: 270°
						3: 0°
0x07E7	RAM/ROM	R/W	Modbus address	2	UINT16	1 ~ 255
						0x0001 ~ 0x00FF
0x07E8	RAM/ROM	R/W	Modbus transmission rate	2	UINT16	0: 9600 bps
						1: 19200 bps
						2: 38400 bps
						3: 115200 bps
0x07E9	RAM/ROM	R/W	Modbus transmission format	2	UINT16	0: N,8,1
						1: N,8,2
						2: O,8,1
						3: E,8,1
0x07EA	RAM/ROM	R/W	Backlight brightness control	2	UINT16	0: Level_0 Darkest
						1: Level_1
						2: Level_2
						3: Level_3
						4: Level_4 Brightest
0x07EB	RAM/ROM	R/W	Gas type	2	UINT16	0: AIR/N <sub>2</sub>
						1: Ar
						2: CO <sub>2</sub>
0x07EC	RAM/ROM	R/W	Output crystal settings	2	UINT16	0: NPN
						1: PNP

### 3.5 Reset Total Data Address (Code)

Data address	RAM/ROM	Read/write	Name	Data length (Byte)	Data type	Parameter description
<b>0x09C6</b>	RAM	W	Reset accumulated flow	2	UINT16	0x01 Execute

## 4. Error Code Description and Handling

Error name	Error message display	Error description	Handling method
Overcurrent error	<b>Error 1</b>	Digital output load current exceeds 450ma	Eliminate Causes of Excessive Load
System error	<b>Error 4</b>	Internal data error	Turn off the power, check the wiring or any other interference sources. If the error persists after rebooting, please contact the manufacturer.
Control error	<b>Error 5</b>	Control output flow not reaching set flow after 5 seconds	<ol style="list-style-type: none"> <li>1. Please operate within the pressure difference and pressure range specified for use.</li> <li>2. Check the piping for air leaks.</li> <li>3. Restore controlled flow by setting the flow to zero.</li> </ol>

## 5. Product Specifications

Model		MFCB	
Valve type		Proportional solenoid valve normally closed when power off (N.C.)	
Fluid		Non-corrosive / Non-flammable gas: Dry air, N <sub>2</sub> , CO <sub>2</sub> , Ar	
Flow rate	Air, N <sub>2</sub> , Ar	200 L/min	
	CO <sub>2</sub>	100 L/min	
Display		1.3" 65K Full color TFT-LCD display	
Flow control	Display range	0 ~ 100 % F.S.	
	Minimum	LPM	1 L/min
	Setting scale	CFM *1	1 ft <sup>3</sup> /min
Display	Pressure	Display range	-101 ~ 1000 kPa
			kPa
		MPa	0.001
	Setting scale	kgf/cm <sup>2</sup>	0.01
		bar	0.01
		psi	0.1
Temperature	Display range	0 ~ 50°C / 32 ~ 122°F (No freezing)	
	Minimum	°C	0.1
	Setting scale	°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.
		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	± 0.25% RH
	Analog input and output		± 1 % F.S.

Continue

Model		MFCB	
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	
	Current consumption	≤ 300 mA	
Environment	Working pressure range	350 ~ 500 kPa	
	Standard differential pressure	350 kPa (Inlet pressure : 350 kPa, Outlet pressure: 0 kPa )	
	Withstand pressure	1000 kPa	
	Enclosure	IP40	
	Working fluid temp.	0 ~ 50 °C ( No condensation or freezing)	
	Ambient temp. range	Operation : 0 ~ 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. When the display unit is CFM or ft<sup>3</sup>, the actual flow is the display value ×10<sup>-2</sup>.

\*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. Product Dimensions

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