

# ORDERING INFORMATION

# MODEL : M1EXM-2

**PLEASE FILL IN THIS SECTION**



Model
Company
Name
P/O No.

**FACTORY USE ONLY**



Job No.	Approved by (Sales office)
Ser No.	Issued by (Sales office)
Sales	Approved by (Factory)
	Set by (Factory)
	Ser No.

Specify the items you want to change.

Default setting will be used if not specified.

**■ CH1 INPUT SETTING**

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
Filter time constant*1		0 sec.	Specify the range between 0 and 30 sec.	<input type="checkbox"/>

**■ CH1 OUTPUT SETTING**

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
Output range	<input type="checkbox"/> 0 to 20 mA DC <input type="checkbox"/> -5 to +5 V DC <input type="checkbox"/> -10 to +10 V DC	0 to 20 mA DC	Choose among 3 types	<input type="checkbox"/>
0 % output setting		4.00 mA -5.000 V -10.000 V	Specify within settable range in the table 1.	<input type="checkbox"/>
100 % output setting		20.000 mA 5.000 V 10.000 V		

**■ CH2 INPUT SETTING**

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
Filter time constant*1		0 sec.	Specify the range between 0 and 30 sec.	<input type="checkbox"/>

## ■ CH2 OUTPUT SETTING

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
Output range	<input type="checkbox"/> 0 to 20 mA DC <input type="checkbox"/> -5 to +5 V DC <input type="checkbox"/> -10 to +10 V DC	0 to 20 mA DC	Choose among 3 types	<input type="checkbox"/>
0 % output setting		4.00 mA -5.000 V -10.000 V	Specify within settable range in the table 1.	<input type="checkbox"/>
100 % output setting		20.000 mA 5.000 V 10.000 V		

\*1. Filter time constant

Set filter time constant of the first order lag filter. The first order lag filter is available with setting time. When '0' is set to this parameter, the first order lag filter is not available (Response time:  $\leq 0.5$  sec. (0  $\rightarrow$  90 %)). The first order lag filter is equivalent to general CR filter. The setting time constant is the time to follow until about 63 %, when input varies from 0 % to 100 %.

## ■ CH1 DISPLAY SETTING

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
0 % input scaling		0.00	Specify within the range between -99999 and 999999. Decimal point position can be set arbitrarily.	<input type="checkbox"/>
100 % input scaling		100.00	Specify within the range between -99999 and 999999. Decimal point position is same as 0 % input scaling.	<input type="checkbox"/>
Unit (INP Scaling)		%	Choose from the table 2, or specify from the table 3 'Settable characters' within 13 characters.	<input type="checkbox"/>

## ■ CH2 DISPLAY SETTING

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
0 % input scaling		0.00	Specify within the range between -99999 and 999999. Decimal point position can be set arbitrarily.	<input type="checkbox"/>
100 % input scaling		100.00	Specify within the range between -99999 and 999999. Decimal point position is same as 0 % input scaling.	<input type="checkbox"/>
Unit (INP Scaling)		%	Choose from the table 2, or specify from the table 3 'Settable characters' within 13 characters.	<input type="checkbox"/>

■ OTHER SETTING

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
Display setting	Upper: Lower:	Upper: Ch1 PERCENT Lower: Ch2 PERCENT	Choose from the setting value in the table 4.	<input type="checkbox"/>
Chanel enable	CH1 <input type="checkbox"/> Enable <input type="checkbox"/> Disable	CH1: Enable	Specify enable or disable. It is not available to disable CH1 and CH2 simultaneously.	<input type="checkbox"/>
	CH2 <input type="checkbox"/> Enable <input type="checkbox"/> Disable	CH2: Enable		
Brightness		4	Specify among 1 (darkest) to 4 (brightest).	<input type="checkbox"/>
Display timeout		10 min.	Specify the range from 0, 1 to 60 min. Set '0' to display 'always on'.	<input type="checkbox"/>

■ CH1 USER'S TABLE LINEARIZATION

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
User's table linearization	<input type="checkbox"/> Disable <input type="checkbox"/> Enable	Disable	Specify enable or disable. When enable, specify the table in the page 5 to 6.	<input type="checkbox"/>

■ CH2 USER'S TABLE LINEARIZATION

ITEM	SET VALUE	DEFAULT VALUE	COMMENTS	Factory Internal check
User's table linearization	<input type="checkbox"/> Disable <input type="checkbox"/> Enable	Disable	Specify enable or disable. When enable, specify the table in the page 7 to 8.	<input type="checkbox"/>

**Table 1**

OUTPUT RANGE		MIN. SPAN	SETTABLE RANGE
Current output	0 to 20 mA DC	1.000 mA	0.000 to 20.000 mA
Voltage output	-5 to +5 mV DC	0.250 V	-5.000 to +5.000 V
	-10 to +10 V DC	1.000 V	-10.000 to +10.000 V

**Table 2****AVAILABLE UNITS**

DC, AC, mV, V, kV,  $\mu$ A, mA, A, kA, mW, W, kW, var, kvar, Mvar, VA, Hz,  $\Omega$ , k $\Omega$ , M $\Omega$ ,  
cm, mm, m, m/sec, mm/min, cm/min, m/min, m/h, m/s<sup>2</sup>, inch, L,  
L/s, L/min, L/h, m<sup>3</sup>, m<sup>3</sup>/sec, m<sup>3</sup>/min,  
m<sup>3</sup>/h, Nm<sup>3</sup>/h, N·m, N/m<sup>2</sup>, g, kg, kg/h, N, kN, Pa, kPa, Mpa, t, t/h,  
°C, °F, K, %RH, J, kJ, MJ, rpm, sec, min, min<sup>-1</sup>, pH, %, ppm, deg, (blank),

**Table 3****SETTABLE CHARACTERS**

0 - 9 A - Z a - z ! " # \$ % & ' ( ) = - + \* ^ |  
@ ` [ ] { } ; : < > ? \_ , . /

**Table 4****Upper**

SETTING VALUE	DESCRIPTION
Ch1 INPUT	Ch1 input engineering unit value* <sup>2</sup>
Ch1 INPUT (Scaling)	Ch1 input scaling
Ch1 PERCENT	Ch1 percent value* <sup>3</sup>
Ch1 OUTPUT	Ch1 output engineering unit value
Ch2 INPUT	Ch2 input engineering unit value* <sup>2</sup>
Ch2 INPUT (Scaling)	Ch2 input scaling
Ch2 PERCENT	Ch2 percent value* <sup>3</sup>
Ch2 OUTPUT	Ch2 output engineering unit value

**Lower**

SETTING VALUE	DESCRIPTION
Ch1 INPUT	Ch1 input engineering unit value* <sup>2</sup>
Ch1 INPUT (Scaling)	Ch1 input scaling
Ch1 PERCENT	Ch1 percent value* <sup>3</sup>
Ch1 OUTPUT	Ch1 output engineering unit value
Ch2 INPUT	Ch2 input engineering unit value* <sup>2</sup>
Ch2 INPUT (Scaling)	Ch2 input scaling
Ch2 PERCENT	Ch2 percent value* <sup>3</sup>
Ch2 OUTPUT	Ch2 output engineering unit value
None	No display

\*2. Display the value which is converted by 0 - 10000 as total resistance is 10000.

\*3. Display the value which is converted as 0.00 - 100.00 % based on input setting.

**■ CH1 LINEARIZATION**

Factory  
Internal  
check

Specify the input & output values and the units.

X[n] = Input Value of n-th

Y[n] = Output Value of n-th

$-5\% \leq X[n] \leq +105\%$ ,  $-5\% \leq Y[n] \leq +105\%$ ,  $X[n] < X[n+1]$

Place the check mark for one of engineering unit value, % value or scaling value.

The value is converted to %, and the value rounded off is entered to the unit.



n	X <input type="checkbox"/> Engineering unit value <input type="checkbox"/> % value <input type="checkbox"/> Scaling value	Y <input type="checkbox"/> Engineering unit value <input type="checkbox"/> % value <input type="checkbox"/> Scaling value			
001			026		
002			027		
003			208		
004			029		
005			030		
006			031		
007			032		
008			033		
009			034		
010			035		
011			036		
012			037		
013			038		
014			039		
015			040		
016			041		
017			042		
018			043		
019			044		
020			045		
021			046		
022			047		
023			048		
024			049		
025			050		

■ CH1 LINEARIZATION

051			082		
052			083		
053			084		
054			085		
055			086		
056			087		
057			088		
058			089		
059			090		
060			091		
061			092		
062			093		
063			094		
064			095		
065			096		
066			097		
067			098		
068			099		
069			100		
070			101		
071			102		
072			103		
073			104		
074			105		
075			106		
076			107		
077			108		
078			109		
079			110		
080			111		
081					

**■ CH2 LINEARIZATION**

Factory

Internal

check



Specify the input & output values and the units.

X[n] = Input Value of n-th

Y[n] = Output Value of n-th

-5% ≤ X[n] ≤ +105%, -5% ≤ Y[n] ≤ +105%, X[n] < X[n+1]

Place the check mark for one of engineering unit value, % value or scaling value.

The value is converted to %, and the value rounded off is entered to the unit.

n	X <input type="checkbox"/> Engineering unit value <input type="checkbox"/> % value <input type="checkbox"/> Scaling value	Y <input type="checkbox"/> Engineering unit value <input type="checkbox"/> % value <input type="checkbox"/> Scaling value			
001			026		
002			027		
003			208		
004			029		
005			030		
006			031		
007			032		
008			033		
009			034		
010			035		
011			036		
012			037		
013			038		
014			039		
015			040		
016			041		
017			042		
018			043		
019			044		
020			045		
021			046		
022			047		
023			048		
024			049		
025			050		

■ CH2 LINEARIZATION

051			082		
052			083		
053			084		
054			085		
055			086		
056			087		
057			088		
058			089		
059			090		
060			091		
061			092		
062			093		
063			094		
064			095		
065			096		
066			097		
067			098		
068			099		
069			100		
070			101		
071			102		
072			103		
073			104		
074			105		
075			106		
076			107		
077			108		
078			109		
079			110		
080			111		
081					