



DESCRIPTION

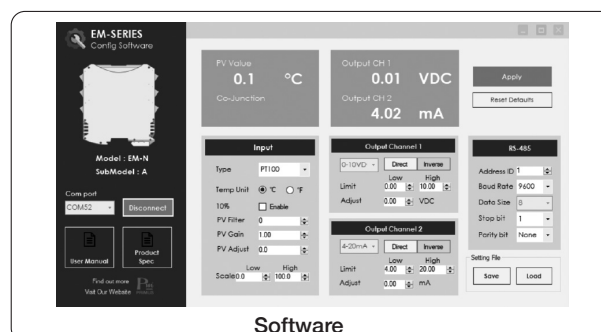
- Convert electrical signal to be standard analog signal.
- Receive input type DC/AC Current, DC/AC Voltage, Resistance and Multi Input for Thermocouple, PT100 (RTD).
- Can program choose Range in one device.
- Stand Analog Signal Output
- Input, Output isolate from each other(Isolation).
- Output has maximum 2 output.
- DIN RAIL Mounting installation.
- LED shows status power supply.

SPECIFICATION

Model	EM-L-SERIES	EM-LC-SERIES
Power Supply	12/24 VDC	
Power Consumption	4 VA Max.	0.6 VA
Input	Channel	1 Input Channel
	Thermocouple	Type K, J, R, T, N, S, E
	RTD	PT100
	Resistance	0-100Ω, 0-1kΩ, 0-10kΩ, 0-100kΩ
	DC Current	0-20 mA, 4-20 mA, 0-100 mA
	AC Current	5 A
	DC Voltage	0-75 mV, 0-150 mV, 0-1 V, 0-10 V, 0-500 V
	AC Voltage	500 V
	Sampling Time	250 ms
Output	Channel	1 Output
	Analog Output	4-20 mA Maximum 500 Ω
		0-10 VDC Minimum 1 kΩ
	Accuracy	± 0.2% F.S
Commu- nication	Protocol	MODBUS RTU, RS-485
	Baud Rate	4800, 9600, 19200, 38400, 57600
	Stop Bits	1, 2
	Parity Bits	None, Even, Odd
	Support Node	255 Max.
Ambient Operation	Temperature	-10 °C to 60 °C
	Humidity	<85 % RH Non-Condensing
Ambient Storage	Temperature	-20 °C to 80 °C
	Humidity	<85 % RH Non-Condensing
Protection Degree	IP20	
Installation	DIN RAIL	
Material	ABS-V0	
Size (mm.)	17.5 x 100 x 113.5 mm.	
Weight	93 g.	140 g.

OPERATION

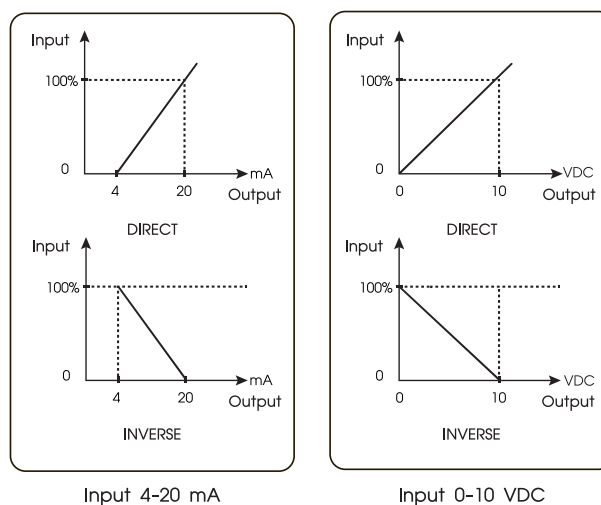
EM-N/EM-L/EM-LC Series convert input signal to be standard analog signal 4-20 mA or 0-10 VDC and can communication RS-485 Modbus Protocol. Input and Output separate ground from each other. User can use output signal to measure instrument. User can choose range in each input and output to operate Direct or Inverse in one device via program EM-SERIES Config Software.



Analog Output can program to operate in Direct is Input vary direct to output as graph picture (1)

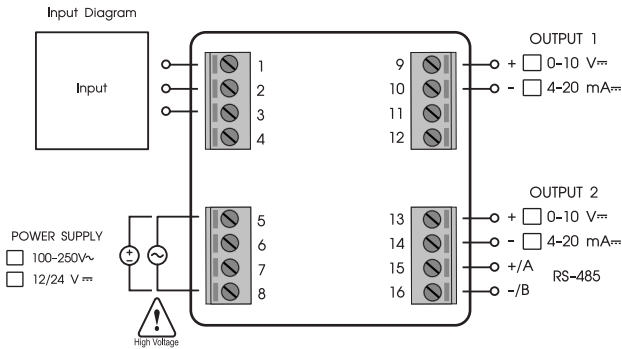
Output signal graph

Picture (1)

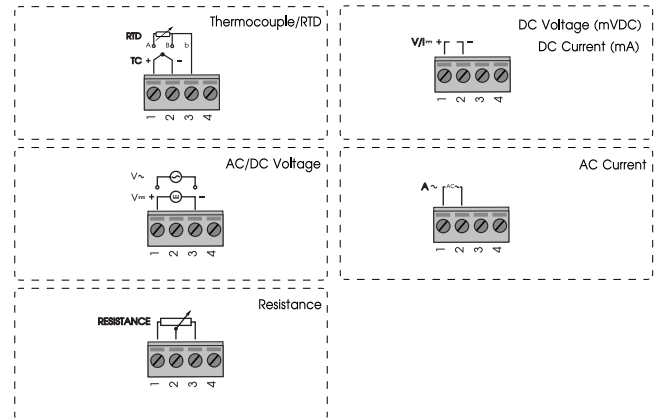


WIRING DIAGRAM

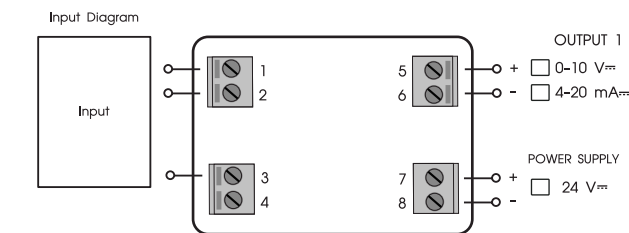
EM-N Series



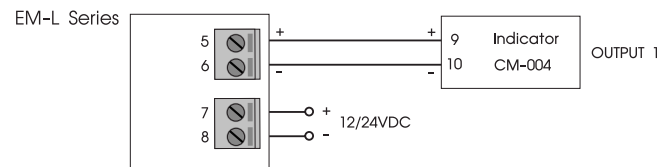
Input Diagram



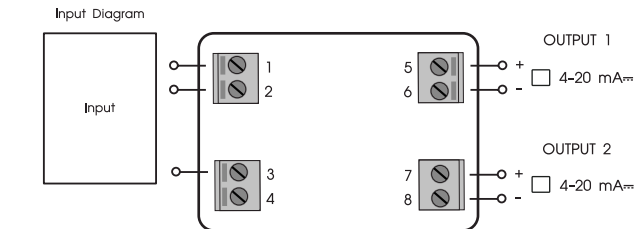
EM-L Series



Output Diagram



EM-LC Series (Current Loop)



EM-LC Series (Current Loop)

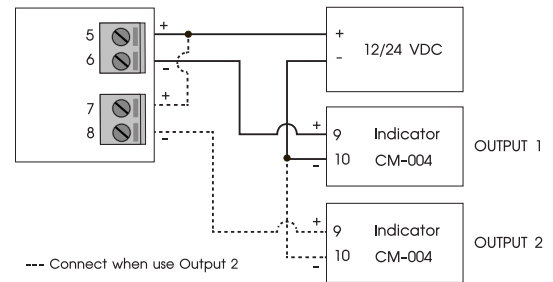
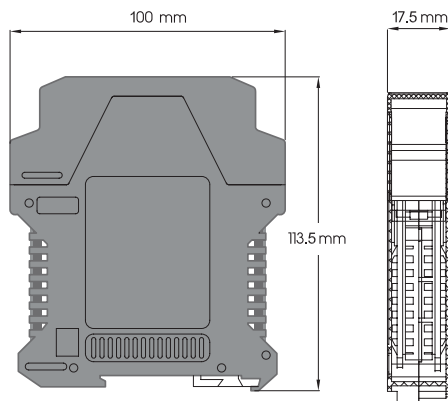


Table 1 (Input table)

Code1	Code2	Code3	Input Type	Instrument Input Range	PV/Setting Range	Prescale
00	A	A1	Thermocouple Type K	-200 to 1372 °C	-2000 to 13720	10
01			Thermocouple Type J	-200 to 1200 °C	-2000 to 12000	10
02			Thermocouple Type R	-50 to 1680 °C	-500 to 16800	10
03			Thermocouple Type T	-200 to 400 °C	-2000 to 4000	10
04			Thermocouple Type N	-200 to 1300 °C	-2000 to 1300	10
05			Thermocouple Type S	-50 to 1768 °C	-500 to 17680	10
06			Thermocouple Type E	-200 to 1000 °C	-2000 to 10000	10
07			PT100	-200 to 680 °C	-2000 to 6800	10
08		A2	0-20 mA	0 to 20 mA	0 to 20000	1000
09			4-20 mA	4 to 20 mA	4 to 20000	1000
10			0-100 mA	0 to 100 mA	0 to 10000	100
11		A3	0-75 mVDC	0 to 75 mVDC	0 to 7500	100
12			0-150 mVDC	0 to 150 mVDC	0 to 15000	100
13		A4	0-1 VDC	0 to 1 VDC	0 to 10000	1000
14			0-10 VDC	0 to 10 VDC	0 to 10000	1000
15	B	B1	0-500 VDC	0 to 500 VDC		
16	C	C1	0-500 VAC	0 to 500 VAC		
17	D	D1	0-5 A.AC	0 to 5 A.AC		
18	E	E1	0-100Ω	0 to 100Ω		
19			0-1 kΩ	0 to 1 kΩ		
20	G	G1	0-10 kΩ	0 to 10 kΩ		
21			0-100 kΩ	0 to 100 kΩ		

DIMENSION

● EM-L/EM-LC-SERIES



Ordering Code

Slim Size (Supply 10-24VAC/VDC)

INPUT		Current Loop		OUTPUT 1		OUTPUT 2	
<u>X</u> <u>X</u>	Select Order Code1. From Table1. ***In case customer specific input	None	None Current Loop **Remark: Output1 Only (Not Output2)	0	NONE	0	NONE
<u>X</u>	For Programmable Input Select Order Code2. From Table1. (for None Current Loop) ***Can set Inverse Output from program	C	Current Loop ** Remark: Output 1,2 (4-20mA and 20-4mA Only)	G	0-10 VDC	I	4-20 mA
<u>X</u> <u>X</u>	For Programmable Input Select Order Code3. From Table1. (for Current Loop) ***Can set Inverse Output from program			I	4-20 mA	C	20-4 mA (Inverse)
				V	10-0 VDC (Inverse)		
				C	20-4 mA (Inverse)		