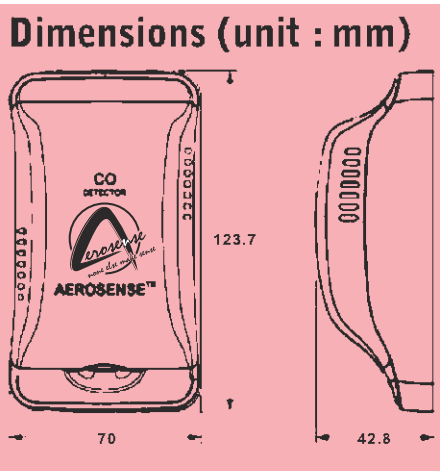
AEROSENSE™

SERIES CMT-100

CARBON MONOXIDE TRANSMITTER



Series CMT-100, Carbon Monoxide Transmitter which is designed to detect Carbon Monoxide gas in air with analog output and RS-485 MODBUS output.
It is 3-wired supporting and gives current, voltage and RS485 MODBUS output.

FEATURES:

Pre-calibrated
Convenient use with varying voltage applications
Easily installed at a low cost when used with exclusive case
Provides output signal proportional to CO level
Optimum for parking lot, tunnel & underground places.

Ordering Table:

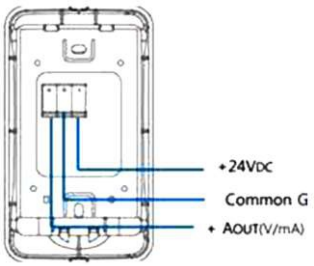
Model NO	Specifications
CMT-100	Carbon Monoxide Transmitter
CMT-100-LCD	Carbon Monoxide Transmitter with display
CMT-100-M	Carbon Monoxide Transmitter with MODBUS Communication
CMT-100-M-LCD	Carbon Monoxide Transmitter with MODBUS Communication & display

SPECIFICATIONS:

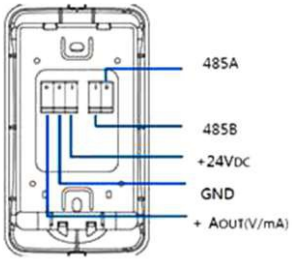
Sensing method: Semiconductor type
Operating Temperature range: -10 to 50˚C
Operating Humidity range: 10-90% RH
Storage temperature: -30 to 60˚C
Storage Humidity: 10-95% RH
Measurement range: 0 to 250 ppm (0-100, 300 ppm is optional)
Accuracy: ±3% FS
Coverage area: 400 sq. m
IP Rating: IP54
Response time: < 1 minute
Sampling interval: every 30 seconds
Input power: 24VDC (3-wired)
Size: 123mmX70mmX43mm

Output:
Voltage: 2-10 VDC (0-10 VDC)
Current: 4-20mA (0-20mA)
RS485 MODBUS Output

Wiring method



CMT-100



CMT-100-M

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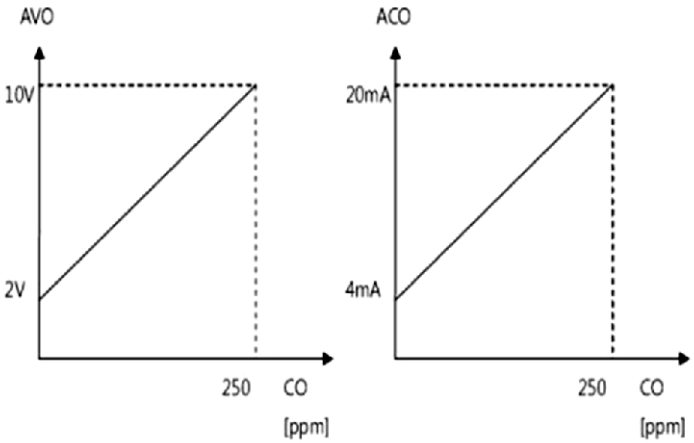
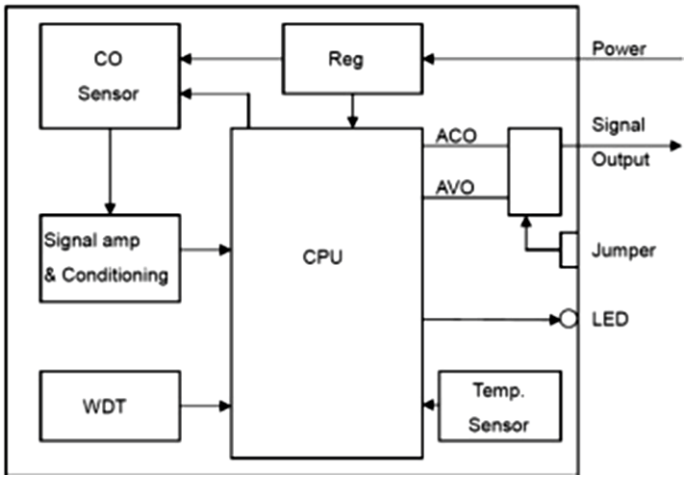
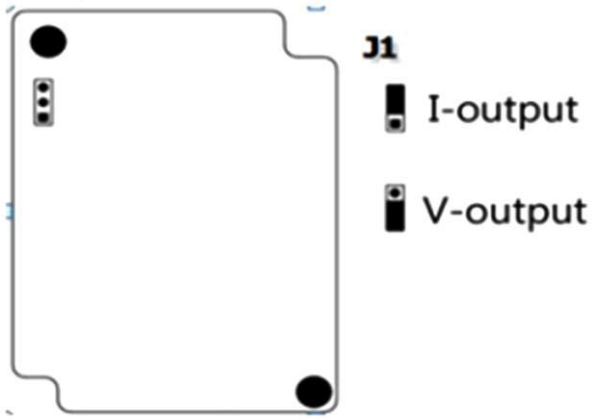
CARBON DIOXIDE TRANSMITTER

Analog Voltage & Current Output and Block diagram

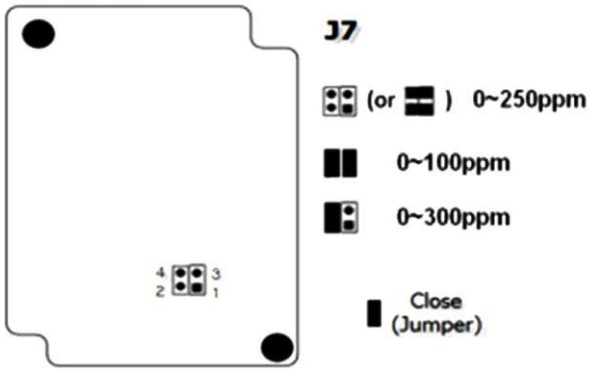




Jumper Selection: J1



Jumper Selection: J7



V/mA output Selection Method

CO Range Selection

Current output is default setting on scale.

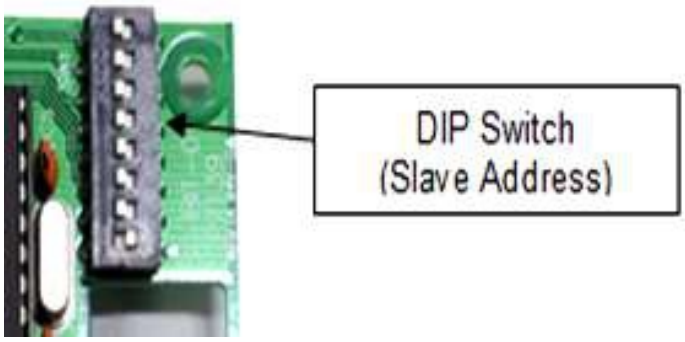
Jumper location on PCB and Setting & Function

Jumper	Location	Setting
SW1	Right Up Side	24V / 12V
J1	Left Up	Current/Voltage
J7	Center Down	Reading Range

CARBON DIOXIDE TRANSMITTER

RS485 Mod-Bus Slave Address setting

Mod-Bus slave address can be set by DIP Switch



· DIP Switch

ON	□							
OFF		□	□	□	□	□	□	□
	1	2	3	4	5	6	7	8

Example) setting Slave Address 1

RS-485 MODBUS Protocol

1. Modicon Mod-Bus RTU Mode: Follow Modicon Modbus protocol
2. Communication specifications

Parameter	Description
Baud Rate	9600 BPS
Data Bit	8 Bits
Parity Bit	None
Stop Bit	1
Flow Control	None

3. Hold Register specifications
   Mapping Base Address: 0x0050
   Hold Register: Max. Read size: 4

Register Address	Value	Data type	Unit	Description
0 x 0050	CO	2 Byte WORD	PPM	Co Ex) 80 ->80 PPM
0 x 0051	Reserved			
0 x 0052	Reserved			
0 x 0053	Reserved			

4. Supported Function Code
   - Currently supported only code 03 and exception responses.
   - Error Code 0x83 or other

Exception code	Description
01	Exception of Function code
02	Exception of starting address
03	Exception of Quantity of Registers