CO Detector

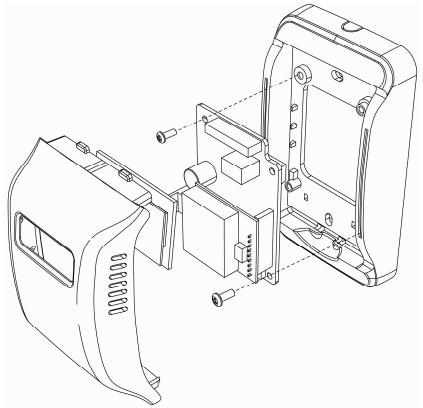
CO Detector

1. Product Description

◆BM3000 **detector and controller is designed to detect carbon monoxide gas in the air.**

◆ **Main application areas are safety of factory, building, home, etc.**

◆ **Main advantage of this model is compact size and easy installation.**



BM3000-CO

CO Detector

2. Main Specifications

	Specification
Sensor Type	**Semiconductor**
Measuring Range	0 ~ 250 ppm
Warm-up time	Minimum 2 hours
Power Supply	24VAC(50/60Hz) / 24VDC(± 20%)
Output Signal	2~10VDC(default) or 4~20mA (Jumper selectable)
Accuracy	0 ~ 100 ppm : ± 30% FS 100 ~ 250 ppm : ± 10% FS
Operating temperature	-10 ~ 50°C
Operating Humidity	10 ~ 95% RH (No Condensing)
Storage temperature	-20 ~ 60°C
Storage Humidity	10 ~ 95% RH (No Condensing)
Dimensions [L x W x H]	122 x 70 x 32 [mm]

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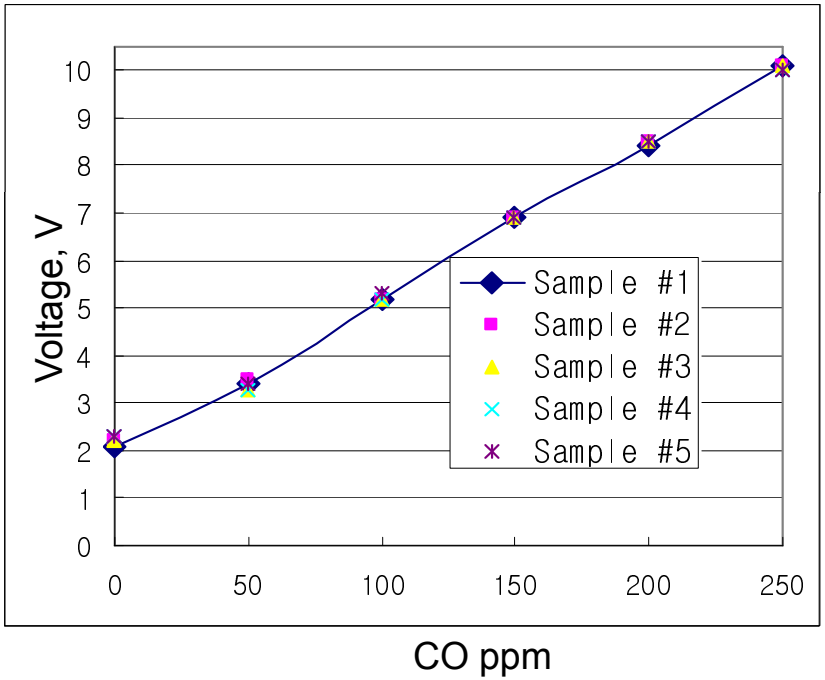
3. Test Results

1) Sensor Accuracy Test Test at 25℃

Test result of samples to prove output accuracy of sensors at corresponding concentration.

	Output Voltage				
CO ppm	Sample #1	#2	#3	#4	#5
0	2.1	2.2	2.2	2.3	2.3
50	3.4	3.5	3.3	3.3	3.4
100	5.2	5.2	5.2	5.2	5.3
150	6.9	6.9	6.9	6.9	6.9
200	8.4	8.5	8.5	8.5	8.5
250	10.1	10.1	10.1	10.0	10.0



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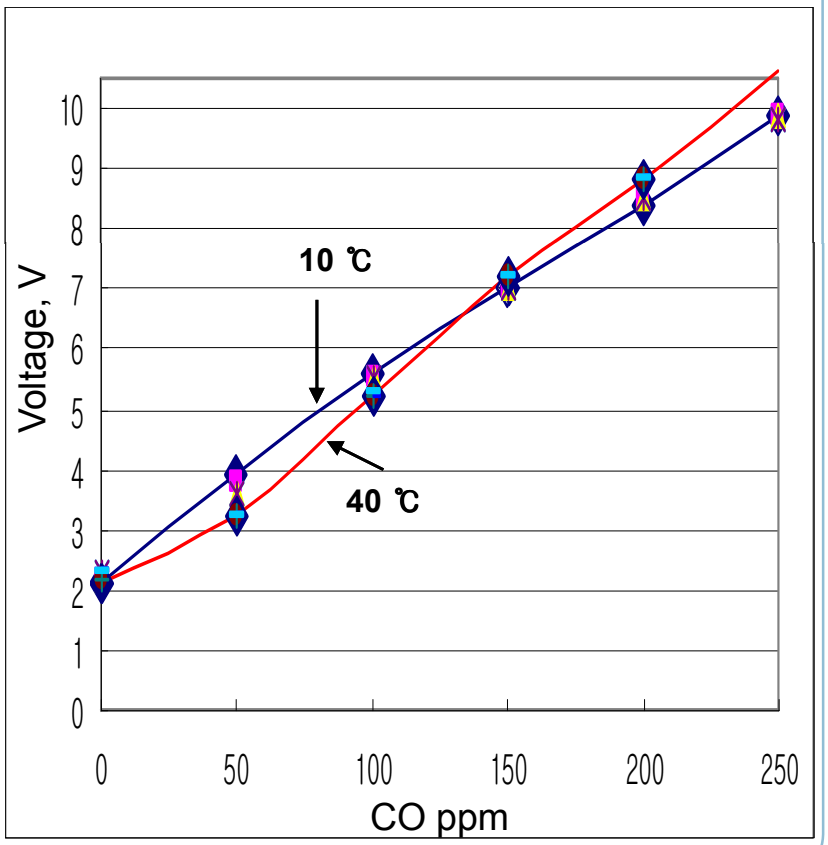
3. Test Results

2) Temperature Test (5℃ and 45 ℃)

Test result of samples to prove stability of sensor against temperature variation.

	10℃ Voltage				
CO ppm	Sample #1	#2	#3	#4	#5
0	2.1	2.2	2.2	2.3	2.3
50	3.9	3.8	3.6	3.6	3.6
100	5.6	5.5	5.5	5.5	5.5
150	7	7	7	7	7
200	8.4	8.5	8.5	8.5	8.5
250	9.9	9.9	9.9	9.8	9.8
	40℃ Voltage				
CO ppm	Sample #1	#2	#3	#4	#5
0	2.1	2.2	2.2	2.3	2.3
50	3.2	3.2	3.2	3.2	3.2
100	5.2	5.2	5.2	5.2	5.3
150	7.2	7.2	7.2	7.2	7.2
200	8.8	8.8	8.8	8.8	8.8
250	10.6	10.6	10.6	10.6	10.6



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3. Test Results

3) Power Test (AC/DC Power Variation)

< Test Condition >

Test	Supplied Voltage	Time (min)	Conditions
1	28.8 V (120%)	10	28.8 V , during 10 min.
2	19.2 V (80%)	10	19.2V , during 10 min.
3	0V to 24V	60	Repetition of 0V 10 sec , 24V 1 min. over 60 minutes

< Test Result >

Test result of AC power variation		
Test No.	Power input	Result
1	28.8V, 60Hz	Good
2	19.2V, 60Hz	Good
Output when VAC is varied at ±20%		
ppm	Output Voltage	Output Current
0	2	4
50	3.5	7
100	5.4	10.8
150	7	14
200	8.5	17
250	10	20

Test result of DC Power variation		
Test No.	Power input	Result
1	28.8VDC	Good
2	19.2VDC	Good
Output when VDC is varied at ±20%		
ppm	Output Voltage	Output Current
0	2	4
50	3.5	7
100	5.4	10.8
150	7	14
200	8.5	17
250	10	20

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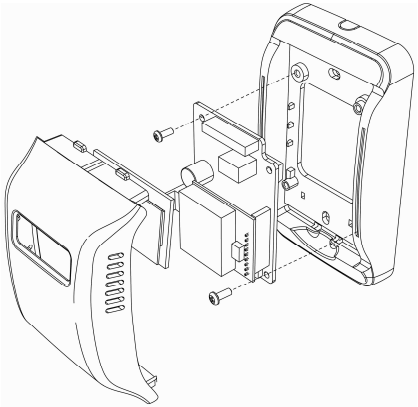
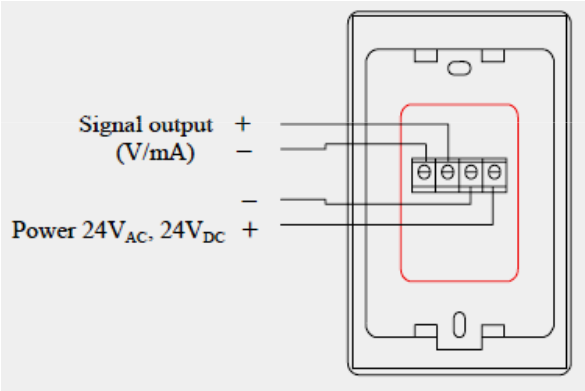
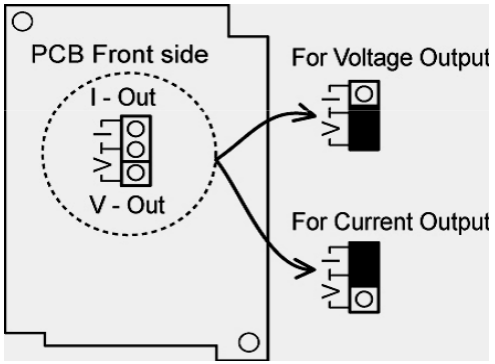
4. Wiring method

Assembly	Wiring	Jumper selection
		

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5. Application

Area		Purpose
Building	***Boiler***  ***Garage***  	• Hazardous gas detection
Industry	***Factory***  	• Hazardous gas detection
Home	***Safety*** 	•Safety (CO detecting)