

SPECIFICATION of CO2 MEASUREMENT UNIT

MODEL NO. : CO2-4K-3M-P

MODEL NO. : CO2-4K-3M-P	DRAWING NO. : PRLNDI-001A	REV :	PAGE 1 / 4	June,07, 2016
PART NO. :				 NIPPON CERAMIC CO., LTD.



1. SCOPE

This specification describes a CO2 Measurement Unit supplied by Nippon Ceramic Co., Ltd.

2. TYPE of UNIT

2.1. TYPE NAME: CO2 Measurement Unit

2.2. MODEL NO.: CO2-4K-3M-P

3. DIMENSIONS

See Fig. 2.

Production Lot No. is put on a Unit.

4. GENERAL / ELECTRICAL CHARACTERISTICS

Table 1

PARAMETER	SPECIFICATION
4.1. Outputs	PWM Open Collector to GND Maximum 5mA
4.2. Operating Temperature	0 ~ +40 degrees Celsius
4.3. Storage Temperature	-20 ~ +50 degrees Celsius
4.4. Operating Humidity	0-95% non-condensing
4.5. Supply Voltage	5+/-0.5 VDC
4.6. Current Consumption	25mA (Average) <100mA (Peak)
4.7. Connector (3-pin)	Pin_1 - V+ Pin_2 - V- Pin_3 - PWM Output
4.8. Connector Type	JST S3B-EH-A(LF)
4.9. Reverse Polarity Protection	None

5. CO2 MEASUREMENT

Table 2

PARAMETER	SPECIFICATION
5.1. Type of Measurement	NDIR
5.2. Measurement Range	400 – 4,000ppm CO2 by volume
5.3. Resolution	< 20ppm CO2
5.4. Accuracy	+/-5% FS (+/-200ppm) at 25°C
5.5. Pressure Dependence	0.13% of reading per mm Hg
5.6. Response Time	< 3 minutes for a 90% step change
5.7. Warm Up Time	< 30 seconds operational <15 minutes full accuracy

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6. PWM Output Cycle

Table 2

PARAMETER	SPECIFICATION
6.1. Cycle Period	1004 ms +/- 5%
6.2. Cycle Start High Level	2ms (nominal)
6.3. Cycle End Low Level	2ms (nominal)

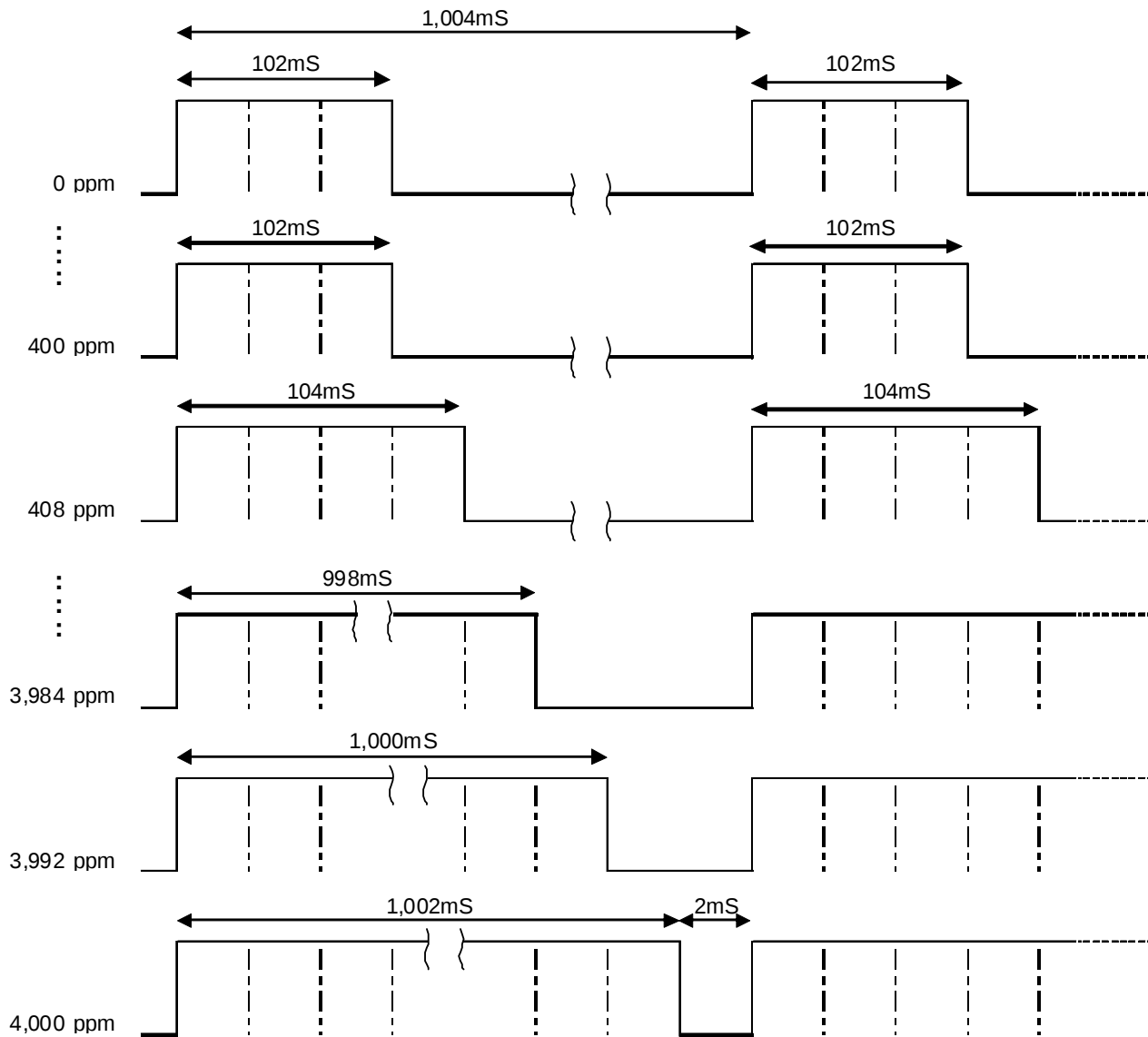


Figure 1: PWM Output Cycle

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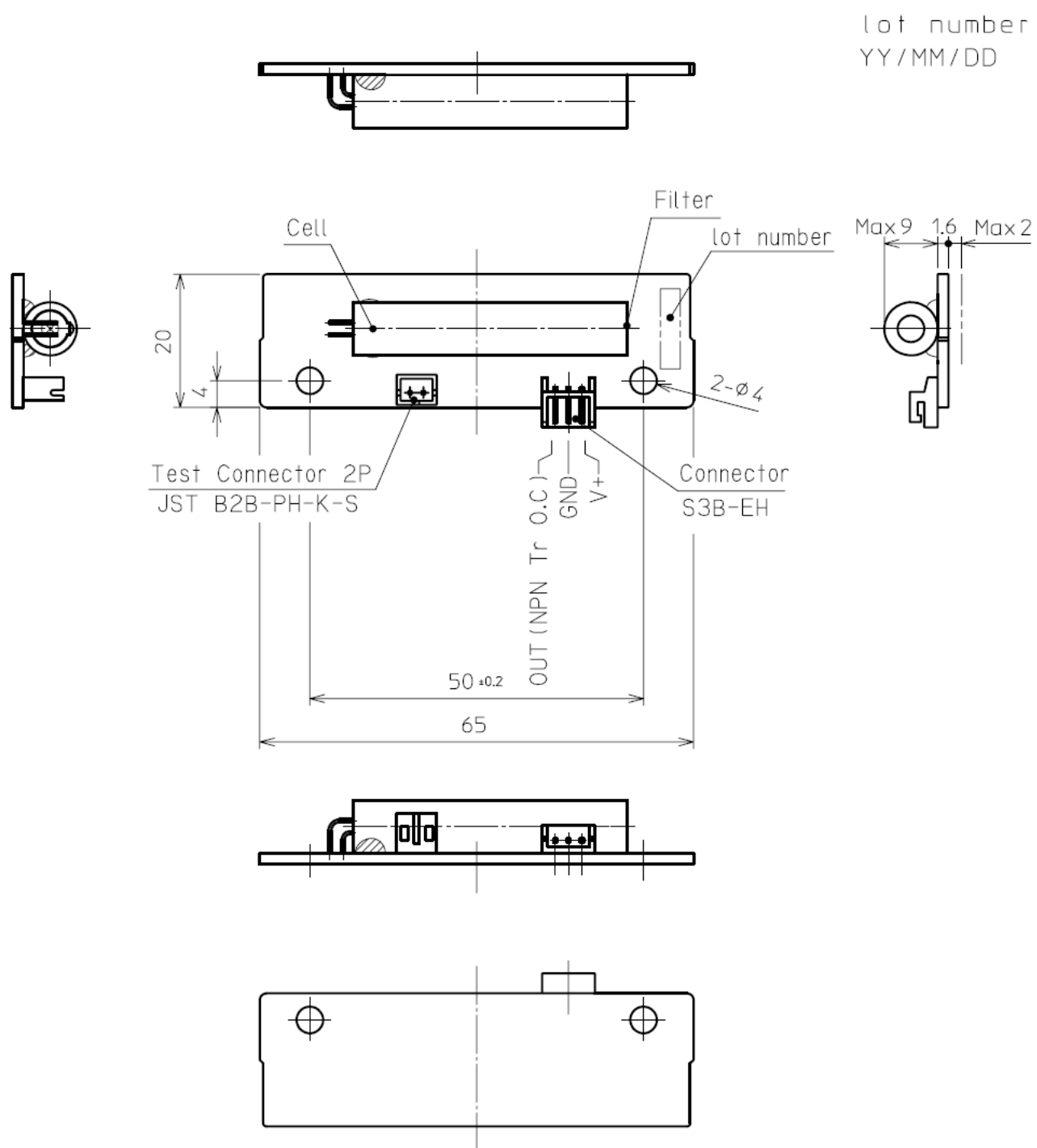


Figure 2: Dimensions

Unit [mm]

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