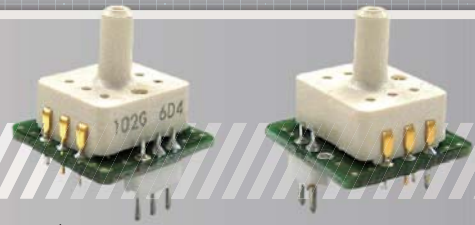


## High precision Pressure transducer

# PA-204 SERIES



### Features

- Small size, light weight
- Highly precise by digital temperature compensation
- Non-corrosive gas use
- Possibly mounted on a board with DIP shape interface
- Pressure range 5~100kPa

### Applications

- Medical equipment (C-PAP, Artificial dialysis device, Mind stomach device, etc)
- Industrial equipment (Dispenser, Regulator, etc)
- Metering equipment (Gas analyzer, etc)

## MODEL NUMBER DESIGNATION

Series name

# PA - 204 - 500G

Pressure reference

G : Gauge

Rated pressure range

500 G : 0~5 kPa    501 G : 0~50 kPa  
101 G : 0~10 kPa    102 G : 0~100 kPa

## STANDARD SPECIFICATIONS

Item	Specification			
Pressure range	500G	101G	501G	102G
Pressure reference	Gauge (Positive)			
Rated pressure range	0~5kPa	0~10kPa	0~50kPa	0~100kPa
Maximum pressure	25kPa	50kPa	100kPa	200kPa
Break-down pressure	50kPa	100kPa	250kPa	500kPa
Operating temp. range	-20 ~80 °C			
Compensated temp. range	0~50 °C (The sensor unit)			
Operating humidity	35 ~85% RH (No condensation)			
Storage temp.	-20 ~80 °C (Atmospheric pressure, humidity 65%RH max.)			
Pressure medium	Gases (No corrosive)			
Insulation resistance	100MΩ minimum (500V DC)			
Dielectric strength	500V AC 60 s (Leakage current 1 mA maximum)			
Pressure port	φ3.2			
Supply voltage	5V ±0.5V			
Consumption current	3mA maximum			
Dimensions、Net weight	19 × 15 × 15mm, Approx.1.8g			

※ Unless otherwise particularized, all specifications are specified under the condition of ambient temperature  $T_a=25\pm 5^\circ\text{C}$ , excitation voltage  $V_{opr}=5\text{V DC}$ , and input pressure  $P_{in}=P_r$  (Symbol  $P_r$  represents rated pressure) .

## ANALOG OUTPUT ※1

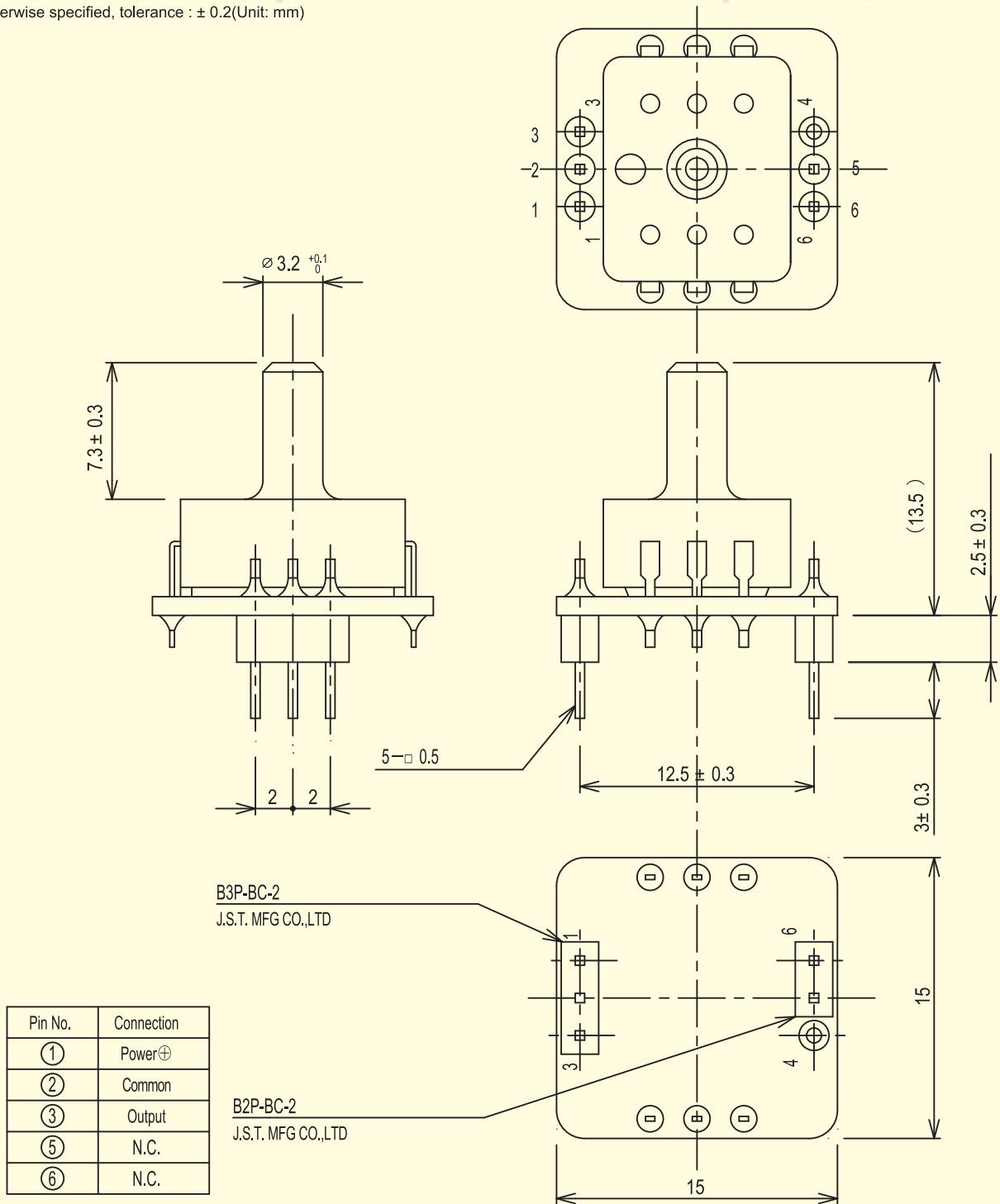
Item	Specification			
Pressure range	500G	101G	501G	102G
Output voltage	0.5 ~4.5V ※2			
Output limit	16.5mV ~95% $V_{opr}$			
Zero voltage	0.5 ±0.1V	0.5 ±0.04V	0.5 ±0.04V	0.5 ±0.04V
Span voltage	4.0 ±0.04V			
Output current	1mA maximum (Load resistance 5kΩ minimum)			
Linearity/Hysteresis	±0.5%F.S.			
Thermal error	Zero	±0.1%F.S./°C	±0.05%F.S./°C	±0.03%F.S./°C
	Span	±0.1%F.S./°C	±0.05%F.S./°C	±0.03%F.S./°C
Response time	Approx. 2ms			
Gravitational(From horizontal position to vertical position)	±0.2%F.S.	±0.1%F.S.	±0.05% F.S.	±0.05%F.S.

※ 1 Output voltage is proportional to the operating voltage. (ratiometric output)

※ 2 The resolving power of the analog output is 10 Bits(about 0.004V/0.1%F.S).

# ●OUTLINE DIMENSIONS

Unless otherwise specified, tolerance : ± 0.2(Unit: mm)



A **Nidec** Group Company

**COPAL ELECTRONICS** —All for dreams  
www.nidec-copal-electronics.com

**NIDEC COPAL ELECTRONICS, INC.**

367 Van Ness Way, Suite 601  
Torrance, CA 90501 U.S.A  
Phone: +1-310-618-0225 Fax: +1-310-618-9984

**NIDEC COPAL ELECTRONICS (SHANGHAI) CO.,LTD.**

Unit A, 4/F, No.4 Bldg., No.253, Ai Du Rd., Wai Gao Qiao  
Free Trade Zone, Shanghai 200131, CHINA  
Phone: +86-21-5046-3009 Fax: +86-21-5046-3115

**NIDEC COPAL ELECTRONICS (TAIWAN) CO., LTD.**

18F-1, No.57, Sec.2, Tun Hwa S.Rd., Taipei 106, TAIWAN  
Phone: +886-2-27030577 Fax: +886-2-27010577

**NIDEC COPAL ELECTRONICS CORP.**

7-5-25 Nishi-Shinjuku, Shinjuku-ku, Tokyo 160-0023 JAPAN  
Phone: +81-3-3364-7055 Fax: +81-3-3364-7098

**NIDEC COPAL ELECTRONICS GmbH**

Mergenthalerallee 79-81  
65760 Eschborn GERMANY  
Phone: +49-6196-92775-0 Fax: +49-6196-92775-75

**NIDEC COPAL ELECTRONICS KOREA CORP.**

Woolim Lion's Valley, C-406, 371-28, Gasan-dong,  
Geumcheon-gu, Seoul, 153-786, KOREA  
Phone: +82-2-3482-5861 Fax: +82-2-3482-5860

**NIDEC COPAL ELECTRONICS SINGAPORE PTE. LTD.**

180B Bencoolen Street #07-05 The Bencoolen Singapore 189648  
Phone: +65-6535-0056 Fax: +65-6535-0087

• Specifications are subject to change without notice.