

Nidec

PRESSURE TRANSDUCERS
WITH AMP.

PA-858 series

INSTRUCTION MANUAL Ver.4.0

Thank you for purchasing our product.

In order to use the product correctly and most appropriately, please completely read this manual before use and keep it for future reference.

For more detailed information please ask for the nearest distributor or the following sales center.

NIDEC COMPONENTS CORPORATION

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1. NOTES OF HANDLING

【CAUTION】

These products (pressure sensors, pressure switches, pressure gauges, pressure indicators, leakage sensors, etc.) are designed and manufactured as general industrial parts. Therefore, a person with sufficient knowledge and experience shall confirm the conditions and environments described in the catalog, specifications, and instruction manual of each product, check the suitability of the product for the machine, device, or system which you use, and ensure safety before use.

These products are not intended to be used for applications particularly requiring high reliability (These include, but are not limited to, nuclear power control, aerospace and military purposes).

The details of warranty shall be as per the descriptions in this document and we shall not be liable for any damage on you resulting from the use of any equipment or device (including control systems) which is not in accordance with this document (hereinafter referred to as "use in violation"). In the case where you resell our products, we shall not be liable for any damage on a third party resulting from use in violation by the third party, and even if we make payment to the third party in connection with such use in violation regardless of the name by which such payment may be called, we may demand the whole amount thereof from you.



CAUTION ... This indicates the precaution in handling and/or the risk in misusing.



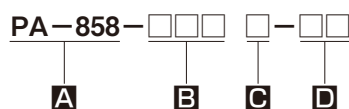
- ! The product can be used for corrosive gases/liquids compatible with SUS316L.
- ! Never take in the over-pressure exceeding the maximum pressure which is the double of rated pressure.
- ! Never insert any foreign matters, like wire or needle, into the pressure port hole.
- ! Do not touch or scratch the diaphragm at the edge of the GF fitting, as this may alter the performance characteristics or damage the diaphragm, and cause malfunctions.
- ! Do not give any unnecessary force to the main body and the cable when installing the product.
- ! Be sure to connect the output terminals correctly. Wrong connection will cause damage of the internal electric circuit.
- ! This product is dust proof and drip proof (to IP65 of IEC standards) and is not suitable for use in environments requiring higher standards.

! Please supply a stable power source.

! Place the wirings as far away as possible from the power lines carrying large power.

2. PART NUMBER DESIGNATION

* Please confirm the part number of the product you purchased.



A : Part name

B : Rated pressure range

102:100 [kPa] 302:300 [kPa] 352:350 [kPa] 502:500 [kPa]
103:1 [MPa]

C : Pressure reference

G : Positive pressure (Gauge) A : Absolute pressure
V : Vacuum pressure (Gauge) R : Compound pressure (Gauge)

D : Fitting

R 2 : R 1 / 4 (PT 1 / 4) GF : G 3 / 8 (PF 3 / 8)
G 2 : G 1 / 4 (PF 1 / 4)

3. ACCESSORIES

An O-ring (Fluoro-rubber) is provided. (GF:P 1 8,G 2:P 1 5)

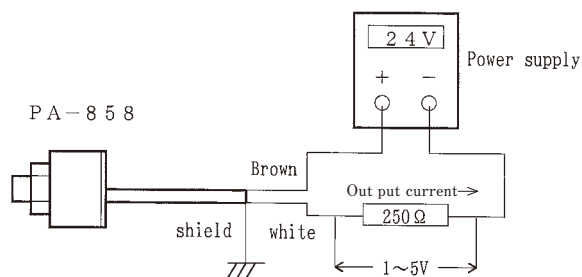
4. INSTALLATION

- ① Please put the wrench the hexagonal portion only. In case of joint of taper screw thread, please screw into the fitted pipe, winding the sealing tape on the screw part.
- ② When wiring or changing wire, please turn off the power line. Please make sure of appropriate wiring before turning on the power line.

5. MAIN SPECIFICATIONS

Item		Specifications
Maximum pressure		Twice of rated pressure
Break-down pressure		Triple of rated pressure
Operating temp. range		-20 to 70°C
Compensated temp. range		0 to 50°C
Operating humidity		35 to 85%RH
Storage temp.		-20 to 80°C
Pressure medium		Corrosive gases/liquids compatible with SUS316L
Sealed liquid		Silicone oil
Protection grade		IP65 (in accordance with IEC)
Net weight		Approx.180g
Supply voltage		24VDC ±10%
Output current		4 to 20mA
Zero current		4mA ±0.2mA
Span current		16mA ±0.2mA
Linearity/Hysteresis		±0.5%FS
Thermal error	Zero	±0.06%FS/°C
	Span	±0.06%FS/°C
Load resistance		500ohm max.

6. RECOMMENDED EXTERNAL SCHEMATICS



7. OUTLINE DIMENSIONS

* Please refer to the mentioned overleaf of [7.Outline dimensions] in Japanese.

8. WARRANTY AND DISCLAIMER

- 1) The warranty period of these products is one year after delivery to a designated place. The warranty mentioned here is limited to the warranty of a delivered product itself, and it does not cover consumables such as batteries. Each product has its own specifications such as durability (pressure cycles). Therefore, check with each service office.
- 2) If a failure or damage of the product occurs during the warranty period, for which we are responsible, we will promptly replace or repair the product free of charge. The warranty mentioned here means the warranty of the product itself and does not cover any damage induced by a failure of the product.
- 3) The warranty does not cover when any of the following items is applicable:
 - The failure is caused by conditions, environments, or handling not described in the catalogue and agreed specifications and other documents.
 - The product has been modified, adjusted, or repaired by a person/company other than our company after delivery.
 - The failure cannot be foreseen by the scientific and technological knowledge at the time of delivery.
 - The failure is caused by force majeure such as disasters.