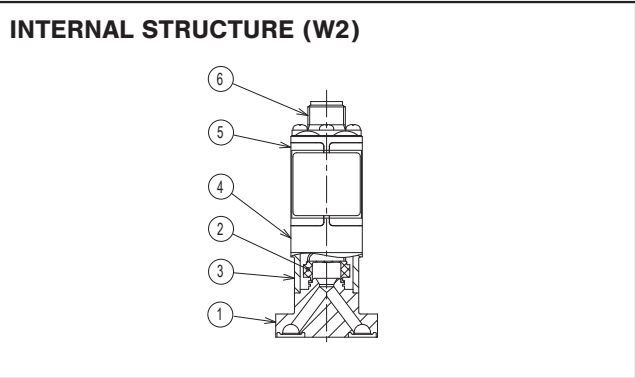
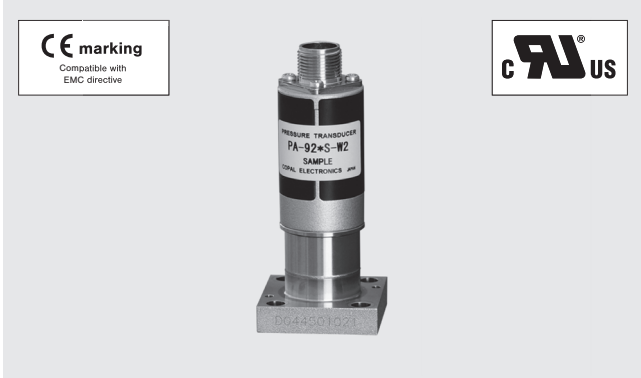




Ultra-miniature gas pressure transducer

PA-920S/PA-928S



Part name		Material
①	Fitting block	SUS 316L of double melt
②	Sensor module	SUS 316L of double melt
③	Sensor holder	SUS316L
④	Case	ADC
⑤	Cover	PBT
⑥	I/O connector	-

FEATURES

- Compact size, Ideal for integrated Gas system/ Gas feed line (Inline process)
- Mounting by connector for an easy wiring
- Integrally welded structure of sensing chip and fitting block
- Voltage or Current output mode

MODEL NUMBER DESIGNATION

PA-920S-502G-W2

Series name

PA-920S : Voltage output (1 ~ 5 V)
PA-928S : Current output (4 ~ 20 mA)

Rated pressure range/Pressure reference

G : Gauge pressure
502G : 0 ~ 0.5MPa
103G : 0 ~ 1MPa

R : Gauge pressure(Compound)

502R : -0.1 ~ 0.5MPa
103R : -0.1 ~ 1MPa

Fitting block spec.

W2 : 1.125 inch W seal
C2 : 1.125 inch C seal

PA-920S/PA-928S

PRESSURE TRANSDUCERS WITH AMP.

LIST OF MODEL NUMBERS

Series name (Reference)	Fitting	Pressure range			
		0 ~ 0.5MPa	-0.1 ~ 0.5MPa	0 ~ 1MPa	-0.1 ~ 1MPa
PA-920S (Voltage output)	W2	PA-920S-502G-W2	PA-920S-502R-W2	PA-920S-103G-W2	PA-920S-103R-W2
	C2	PA-920S-502G-C2	PA-920S-502R-C2	PA-920S-103G-C2	PA-920S-103R-C2
PA-928S (Current output)	W2	PA-928S-502G-W2	PA-928S-502R-W2	PA-928S-103G-W2	PA-928S-103R-W2
	C2	PA-928S-502G-C2	PA-928S-502R-C2	PA-928S-103G-C2	PA-928S-103R-C2

STANDARD SPECIFICATIONS

- Unless otherwise particularized, all specifications are specified under the condition of ambient temperature of 25±5°C, supply voltage of 24VDC, load resistance of 1 MΩ (PA-920S) or 250Ω (PA-928S), and rated pressure range.

Item	Model number	PA-920S/PA-928S				
		502G	103G	502R	103R	
General specifications	Pressure reference	Gauge		Compound		
	Rated pressure range	MPa	0 ~ 0.5	0 ~ 1	-0.1 ~ 0.5	-0.1 ~ 1
	Maximum pressure	MPa	0.75	1.5	0.75	1.5
	Vacuum pressure	Pa abs max.	1.4×10 ⁻⁴			
	Operating temp. range	°C	-20 ~ 70 (No condensation)			
	Compensated temp. range	°C	0 ~ 50			
	Operating humidity	%RH	35 ~ 85 (No condensation)			
	Storage temp.	°C	- 20 ~ 80 (Atmospheric pressure, humidity 65 %RH maximum)			
	Pressure medium		Corrosive gases/Liquids compatible with SUS316L (Double-Melt Material)			
	Insulation resistance	MΩ minimum	(Between the bundled electrical wirings and the pressure port. At 125VDC.)			
	Dielectric strength		Leakage current 5mA max.(Between the bundled electrical wirings and the pressure port. At 125VDC, 1minute)			
	Pressure contact material		SUS316L Double-Melt Material(Fitting and Sensor)			
	Pressure contact roughness		Ra : 0.15, Rz : 0.7μm minimum*1			
	Pressure contact particle		Zero count of particle of the size 0.1μm or bigger (By our inspection standard)			
	Drip-proof structure		IP40			
Net weight	g	Approx. 90 (The cable mass isn't included)				
Power	Supply voltage	V DC	PA-920S : 12 ~ 24 ± 10 % / PA-928S : 24 ± 10 %(including ripple)			
	Consumption current	mA maximum	PA-920S : 20 (Vopr = 24V, Io = 0mA)			

*1) The gas contacting part is treated with Electrolytic Polishing (EP).

PA-920S/PA-928S

PRESSURE TRANSDUCERS WITH AMP.

STANDARD SPECIFICATIONS

Item	Model number	PA-920S				PA-928S							
		502G	103G	502R	103R	502G	103G	502R	103R				
Analog output	voltage/current	DC Output				1 ~ 5 V DC (FS : 4 V) ^{※1}				4 ~ 20 mA (FS : 16 mA) ^{※1}			
	Zero voltage/current	1 V		1.67 V		1.36 V		4 mA		6.67 mA		5.46 mA	
	Full voltage/current	5 V				20 mA							
	Output current	mA maximum				1				—			
	Output type	—				2-wire system							
	Load resistance	Ω				—				250 ~ 500			
	Output accuracy	%F.S.				± 1							
	Thermal error	%F.S./°C				± 0.1							
	Response time	ms				Approx. 2							

※ 1 The resolving power of the analog output is about 0.1%F.S.

ENVIRONMENTAL CHARACTERISTICS

Test item	Test conditions (At 25 ± 5 °C)	Permissible change
Vibration	10 ~ 500 Hz, 1.5 mm maximum/98.1 m/s ² , 3 directions for 2 hours each	Analog output : ± 2 %F.S. maximum after test
Shock	490 m/s ² , 3 directions for 3 times each	
Moisture resistance	40 °C, 90 ~ 95 %RH, 240 hrs.	
Pressure cycling	0 ~ Rated pressure, 10 ⁶ cycles	
EMC	EMI: EN 55011:2009,A1:2010 Groupe1, Class A EMS:EN61326-1:2013 Table2 EN61326-2-3:2013 Annex BB	Analog output ± 5 %F.S. maximum during test

ABOUT PACKING

- This product is precision-cleaned in a clean room and shipped in clean packaging.

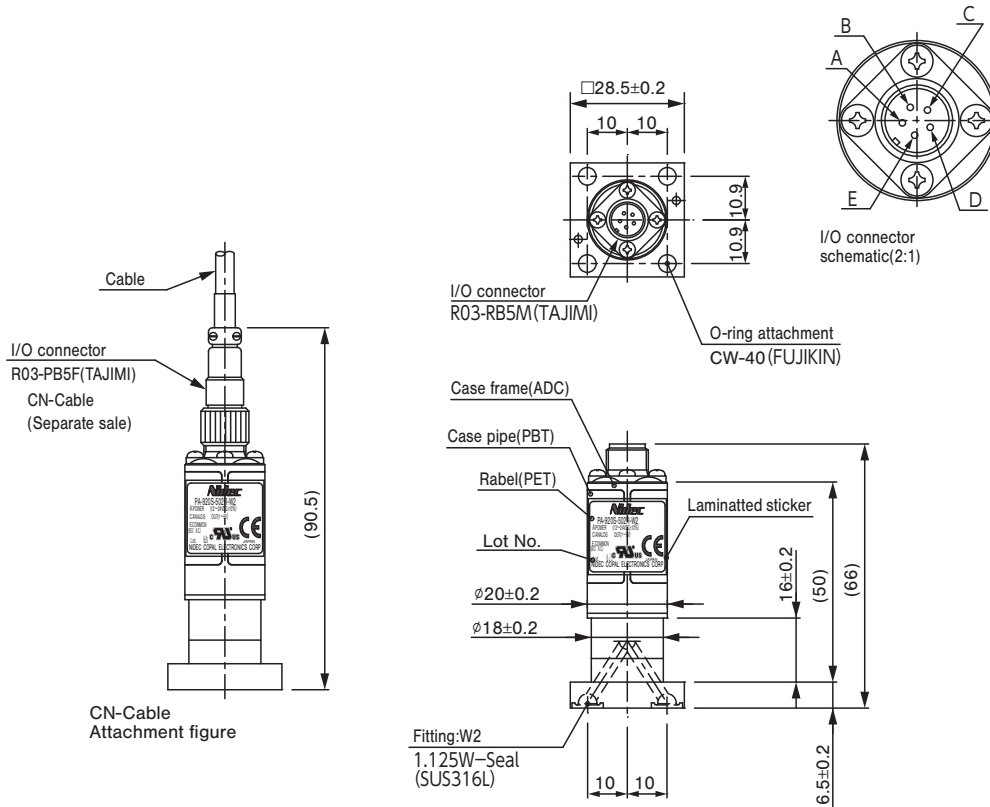
PA-920S/PA-928S

PRESSURE TRANSDUCERS WITH AMP.

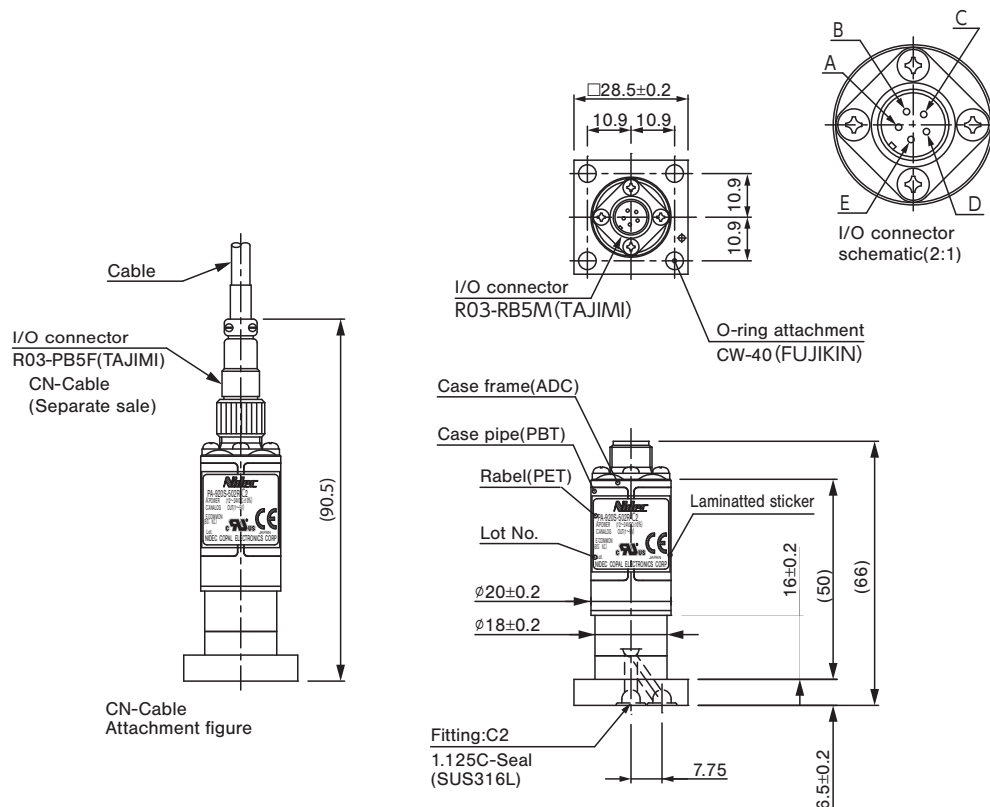
OUTLINE DIMENSIONS

W2 type

Unless otherwise specified, tolerance : ± 0.5 (Unit: mm)



C2 type

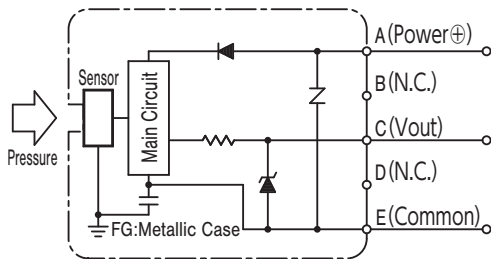


PA-920S/PA-928S

PRESSURE TRANSDUCERS WITH AMP.

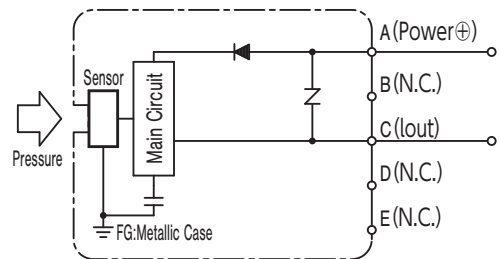
INTERNAL ELECTRICAL SCHEMATICS

● PA-920S : Voltage Output



Pin no.	Wire color	Connection
A	Red	Power(12 ~ 24VDC±10%)
B	N.C.	N.C.
C	White	Current output(1 ~ 5V)
D	N.C.	N.C.
E	Black	Common

● PA-928S : Current Output

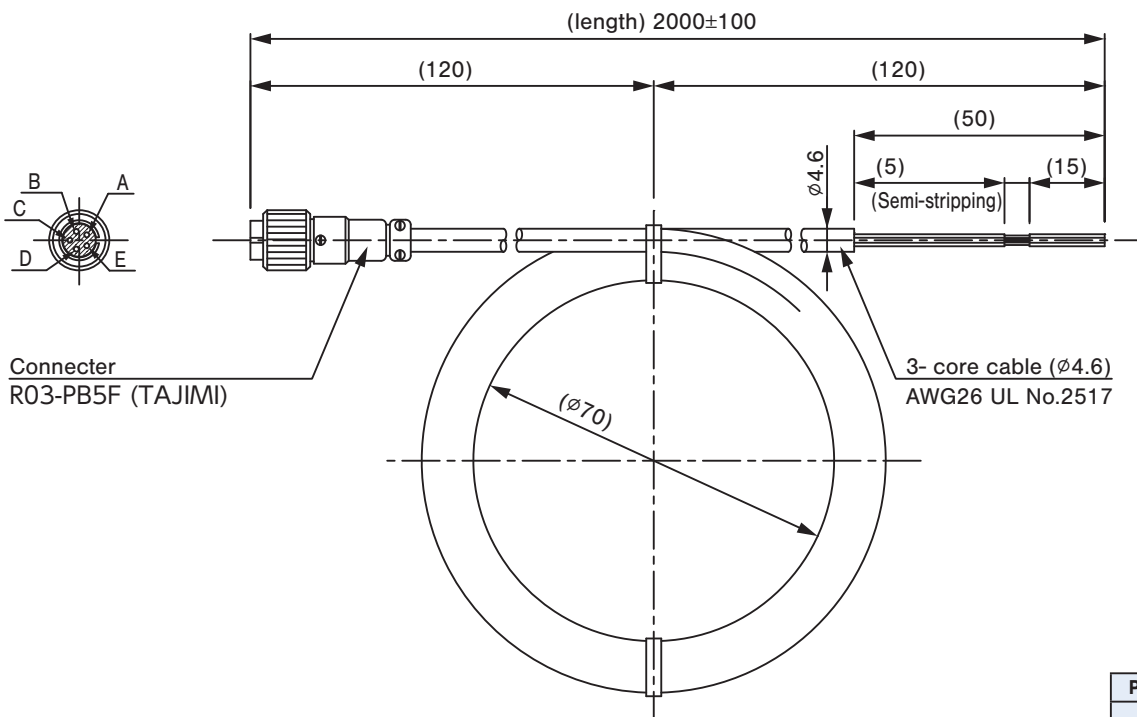


Pin no.	Wire color	Connection
A	Red	Power(24VDC±10%)
B	N.C.	N.C.
C	White	Current output(4 ~ 20mA)
D	N.C.	N.C.
E	Black	N.C.

ASSEMBLED CABLE

(Unit: mm)

The connector cable are sold separately as an optional item.



Pin no.	Wire color
A	Red
B	N.C.
C	White
D	N.C.
E	Black

※ In the insertion and removal of the connector, please check the direction of key slot and do so with the product and connector grabbed tightly.