

## INSTRUCTION MANUAL FOR PRESSURE TRANSMITTER : SERIES NS100A

### 1. FORWARD

At first, make checks on the instrument whether there may find some damage occurred during the transportation or mistakes for P/N of the instrument.

If there may find some inadequate points, please contact our sales agency or sales office from which you have purchased.

### 2. GENERAL

SERIES NS100A are transmitters which use state-of-art Silicon-on-Sapphire technology (SOS) and prove excellent features of high accuracy, high stability and anti-corrosion.

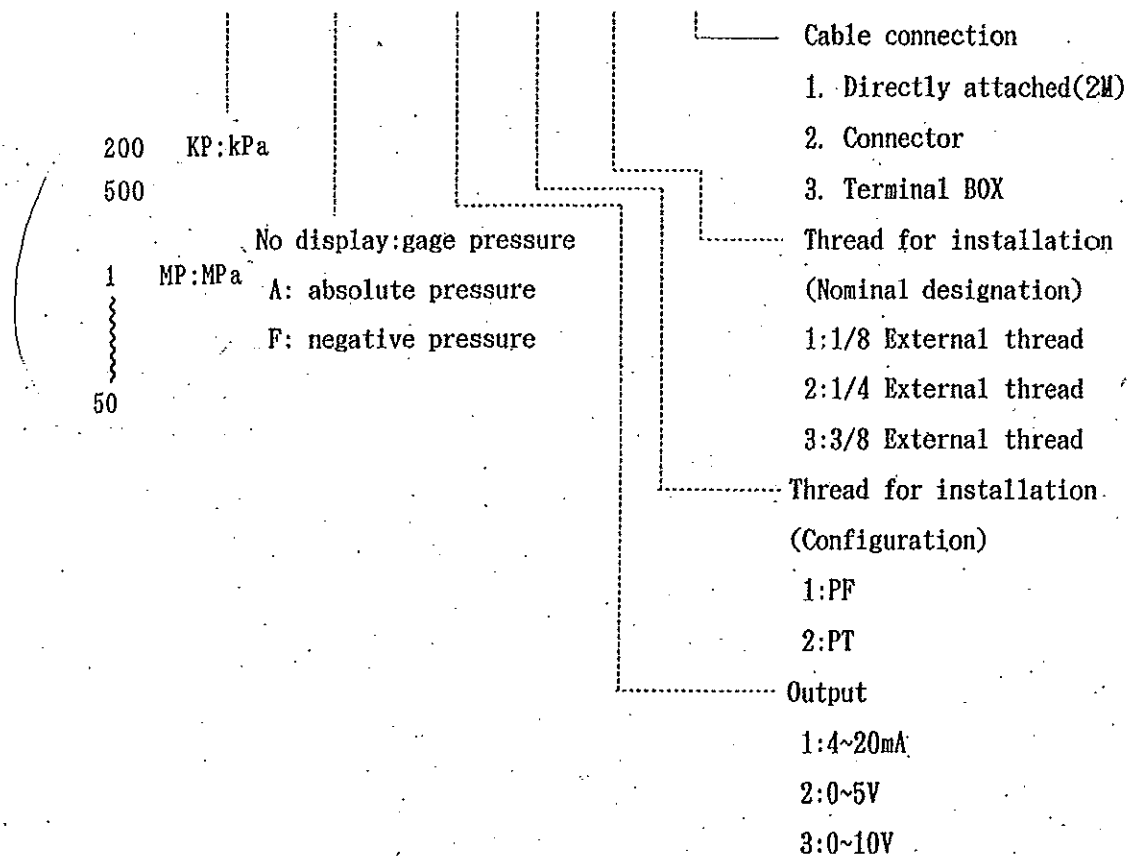
As for output, 4~20mA, 0~5 VDC and 0~10VDC are standard specifications.

### 3. SPECIFICATIONS

Rated capacity	: 200, 500kPa, 1, 2, 5, 10, 20, 25, 30, 35, 50MPa
Safe overload	: 200 % R. C.
Accuracy	: 0.2 % R. O.
Output	: 4~20mA (2 wires method) : 0~10 VDC (Load resistance 5Kohms or more) (Load resistance 500Ω or less) : 0~5VDC (Load resistance 5kohms or more)
Power supply voltage	: 24 VDC (18 ~ 28V)
Insulation resistance	: 1000 Mohms or more (Lead ~ Main body)
Compensated temperature range	: -20 ~ +70°C
Safe temperature range	: -30 ~ +80°C
Temperature effect on zero point	: 0.2 % R. O. /10°C
Temperature effect on output	: 0.2 % LOAD/10°C
Pressure port	: SUS 304 L
Pressure receiving section	: Sapphire
Thread for installation	: PF/PT (1/8, 1/4, 3/8)
Cable connection	: Directly attached type, Connector type, Terminal box type
Clamping torque	: 19.61~39.23N·m (2~4kgf-m)
Weight	: Approx. 200g (Main body only) however, terminal box type is approx. 400g.
Constructions	: Indoor type (Drip-proofed construction)

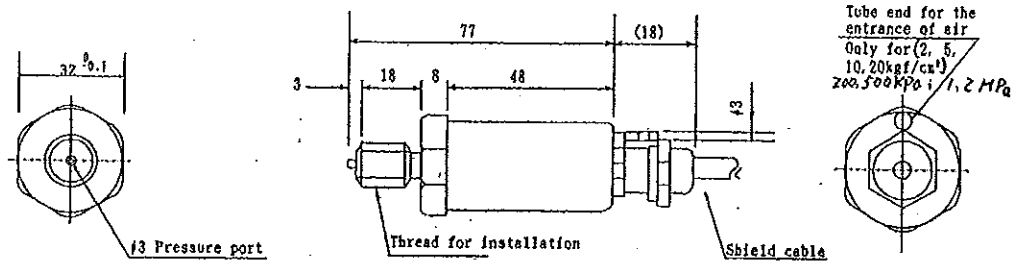
4. Construction of P/N

Name of Series	Rated capacity	Unit
NS100A-***		* * * * *

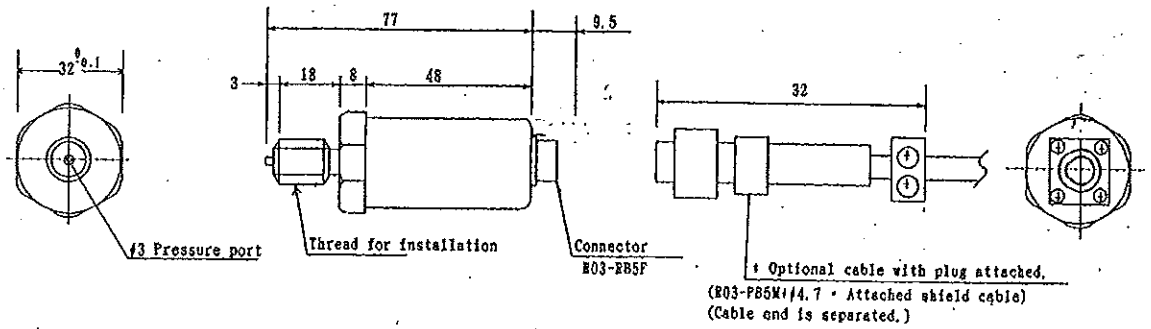


5. Outline dimensions

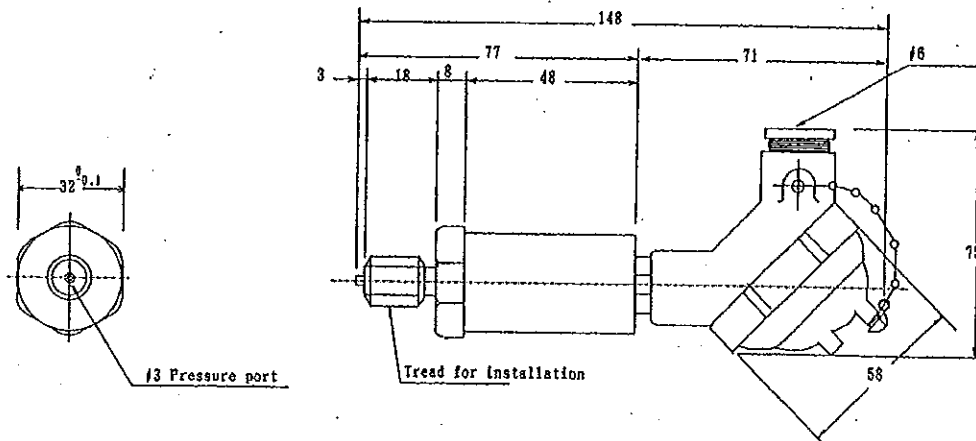
✧ Directly attached type

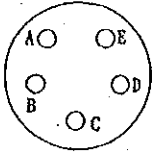
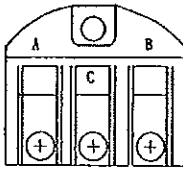


✧ Connector type



✧ Terminal Box type

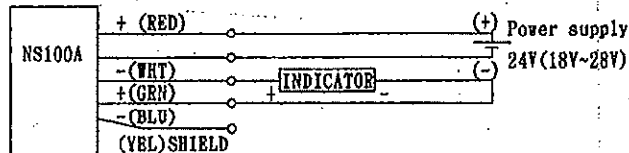


	Current output	Voltage output
Type of directly attached cable	red : Supply voltage input (+24V) green : Current output yellow : Shield	Red - Supply voltage input (+24V) White - Supply voltage input (COM) Green - Voltage output (+) Blue - Voltage output (COM) Yellow - Shield
Type of connector 	A(red) : Supply voltage input (+24V) D(green) : Current output E(yellow): Shield C(white) : Not used. B(blue) : Not used.	A(red)-Supply voltage input(+24V) B(blue)-Voltage output (COM) C(white)-Supply voltage input (COM) D(green)-Voltage output (+) E(yellow)-shield
Type of terminal Box 	A(red) : Supply voltage input (+24V) B(green) : Current output	A(red) : Supply pressure input C(white) : Supply voltage input(COM) B(green) : Voltage output(+)

7. Wiring diagram

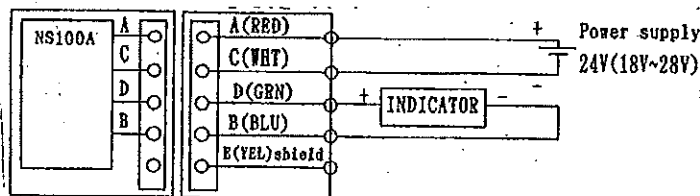
• Voltage output type

Cable method



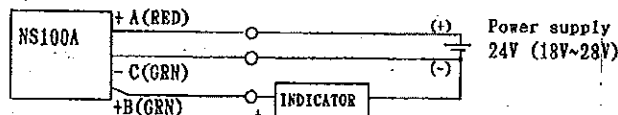
NOTE) 3-wire method is available.  
(White and Blue are COMMON.)

Connector method

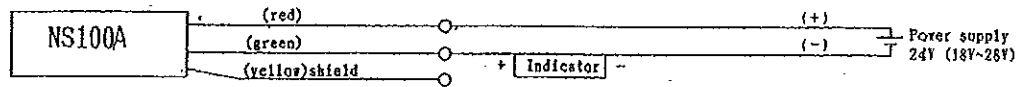


NOTE) 3-wire method is available.  
(White and Blue are COMMON.)

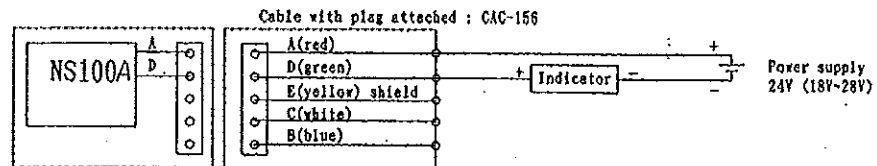
Terminal Box method



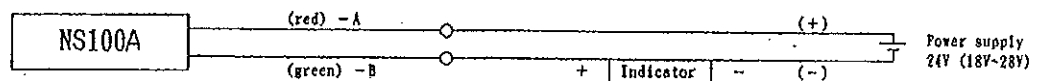
- Current output type
- Cable method



#### Connector method



#### Terminal Box method



- \* Shield wires should be grounded as possible.  
(However, grounding shall not be required when the section of installation thread is located in the ground.)

#### 8. Measurement

- ① Make confirmation again that there is no mistake in the connections before feeding power.
- ② Make confirmation that the supply voltage is between +18 ~ +28VDC.
- ③ Measurement can be started by feeding power.

#### 9. Note for installation

##### 9-1 As for application

- ① Though the instrument has the features of drip-proofed constructions, avoid using it where water may splash or in the water.
- ② Though the instrument has the features of earthquake-resistant constructions, select the location to install where minimal vibrations and impact may exist.

##### 9-2 As for storage

Select the location where moistureless and minimal vibrations and impact may exist.

Please contact us or the bought agency without resolving it when abnormality occurs in the pressure sensor.

Please contact us when there is an uncertain point(the connection way etc.).

About Purchase, Repair and Caribration,


< Contact from Japan >

Measuring Sales Dept. Kanto Tel 0466-23-2180 Fax 0466-22-7191

Measuring Sales Dept. Kansai Tel 06-6263-8331 Fax 06-6263-7388

Measuring Sales Dept. Nagoya Tel 052-231-1181 Fax 052-231-1157

About engineering information . . . Telephone No. as below

Technical support free dial  0120-950008

< Contact from other country >

Fujisawa factory Tel 81-466-22-7151 Fax 81-466-22-1701

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