

## Specifications

*Measuring range:* 0~100 to 0~600mmH<sub>2</sub>O, continuously adjustable  
*Process connection:* PT½ (ISO R7 ½") or NPT ½ tap thread,  
54mm center to center.

*Air connection:* PT¼ (ISO R7 ¼") or NPT ¼ tap thread

*Supply air pressure:* 1.4 ± 0.14 kg/cm<sup>2</sup>

*Output:* 0.2~1.0 kg/cm<sup>2</sup>

*Air consumption:* Within 4 Nℓ/min. (When output 100% balanced).

*Operating pressure:* -0.1 ~ +50 kg/cm<sup>2</sup>G

*Operating temperature:*

At meter body (process fluid); -40 ~ +120°C

At transmitter (ambient); -30 ~ +80°C

*Relative humidity:* 10 ~ 90% RH

*Overload protection:* To 50 kg/cm<sup>2</sup>G in either direction.

*Damping adjustment:* Continuously adjustable. (Time constant is  
30 sec. or more at maximum damping.)

*Accuracy:* ±0.5% FS

*Dead band:* Within 0.1% FS (Sensitivity is 0.05% FS)

*Materials:*

Cover (pressure chamber);

Carbon steel (SF 45), SUS316 st. st. and PVC (Operating  
pressure -0.1 ~ +10 kg/cm<sup>2</sup> and operating temperature  
0 ~ 55°C).

Seal diaphragm; SUS316 st. st., Monel and Tantalum

Wet-part gasket; Teflon

Transmitter case; Aluminum die-cast

*Finish:* Acryl baking finish

( For corrosion-resistant and silver finish, refer to the optio-  
nal specifications. )

*Color of finish:* Cover; Light beige (Munsell 4Y 7.2/1.3)

Case; Dark beige (Munsell 10YR 4.7/0.5)

*Mounting:* On vertical 2 inch pipe.

*Net weight:* Approx. 19.4 kg (Add 1.8 kg for air-set and 2 kg for  
integral orifice assembly.)

## Options (Accessories)

Following accessories are optionally available.

Item (1) ~ (3) are the standard options.

(1) *Suppression and elevation:*

Suppression; Up to 600mmH<sub>2</sub>O

Elevation; Up to 500mmH<sub>2</sub>O

(Span plus elevation; Up to 600mmH<sub>2</sub>O)

(2) *Air-set (Filter and pressure regulator)*

(3) *Integral orifice (SUS316 st. st.) assembly*

Item (4) ~ (8) are the semi-standard options.

(4) *Half range: (Y 20)*

Measuring range; 0~50 to 0~300mmH<sub>2</sub>O

Accuracy; ±0.75% FS (±1.0% FS for span less than  
100mmH<sub>2</sub>O)

Suppression; Up to 600mmH<sub>2</sub>O

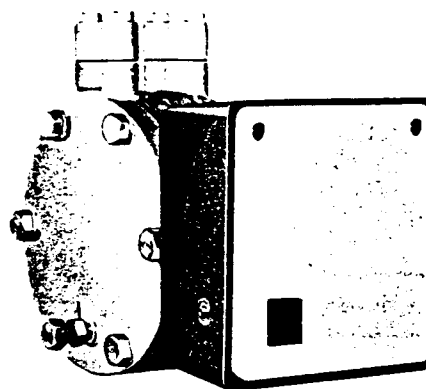
Elevation; Up to 550mmH<sub>2</sub>O (Span plus elevation; Up to  
600mmH<sub>2</sub>O)

## PNEUMATIC

## DIFFERENTIAL PRESSURE TRANSMITTER

(LOW DIFFERENTIAL PRESSURE RANGE)

MODEL; NDP 33



NDP 33

(5) *Oil free: (Y 21)*

Wet part material; SUS316 st. st.

Sealing liquid; Daifloil

Operating temperature (Fluid and ambient); -20 ~ +45°C

(6) *Steam jacket: (Y 29)*

Maximum operating pressure; 10 kg/cm<sup>2</sup>

Connection; PT¼ (ISO R7 ¼") or NPT ¼ tap thread

Material; Carbon steel (SF 45)

(7) *SUS304 st. st. body bolts: (Y 66)*

Maximum operating pressure; 35 kg/cm<sup>2</sup>

(8) *Corrosion-resistant and silver finish (Y 138A ~ D)*

Corrosion-resistant (Acryl baking) finish (Y 138A);

Resistance for corrosive gases.

Corrosion-proof (Epoxy baking) finish (Y 138B);

Resistance for corrosive liquids.

Silver-normal (Acryl baking) finish (Y 138C);

Protection for temperature rise of device caused by di-  
rect sun light radiation heat etc.

Silver-corrosion-resistant (Acryl baking) finish (Y 138D);

Protection for above mentioned temperature rise and  
resistance for corrosive gases.

(Note: Silver finish is not applicable for alkaline gases.)

(9) *Reverser unit:*

Material; Carbon steel (SF 45) or SUS316 st. st.

(10) *For chlorine gas (For SUS316 and PVC cover only)*

Sealing liquid; Fluorine oil (sp. gr. 1.94)

Seal diaphragm mat'l; Tantalum

Operating temperature; -20 to 80°C (SUS316 cover),  
0 to 55°C (PVC cover)

Operating pressure; -0.5 to +100 kg/cm<sup>2</sup>G (SUS316 cover),  
-0.1 to +15 kg/cm<sup>2</sup>G (PVC cover)

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**Process Control Division**

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### Model Number Table

Ex. NDP 33-1122-5, 7

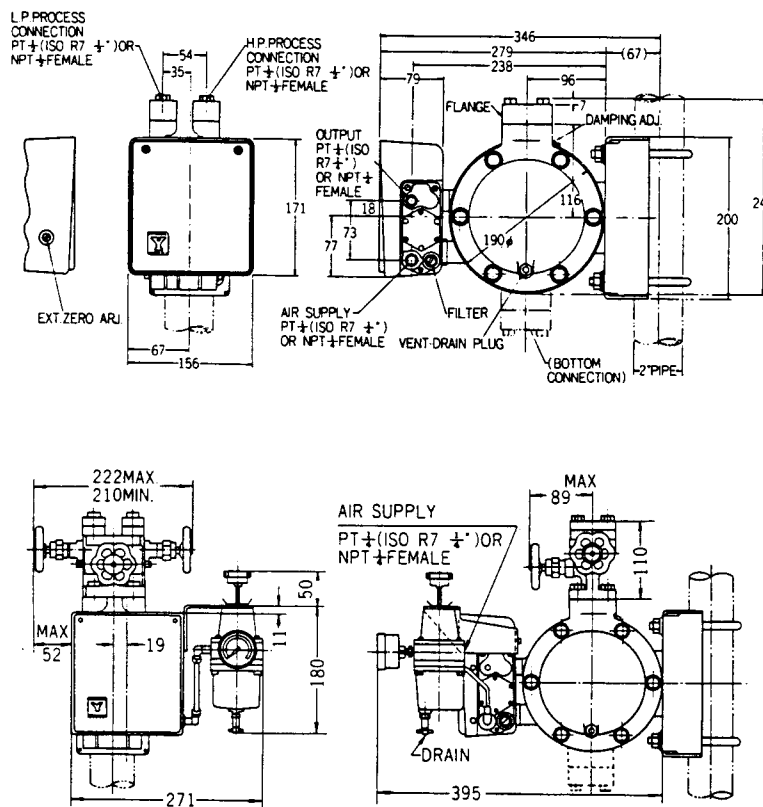
Basic Model No.	Cover Mat'l		Diaphragm Mat'l		Option	Description
	H.P	L.P	H.P	L.P		
NDP 33						Pneumatic, Low Range
	-1					Carbon Steel (SF 45)
	-2					Stainless Steel (SUS 316)
	-5					Rigid PVC
					1	Carbon Steel (SF 45)
					2	Stainless Steel (SUS 316)
					5	Rigid PVC
					2	Stainless Steel (SUS 316)
					3	Monel
					4	Tantalum
					2	Stainless Steel (SUS 316)
					3	Monel
				4	Tantalum	
				-5	Elevation	
				-6	Suppression	
				-7	Air-Set	
				-12	Integral Orifice Ass'y	

**Note:**

When specifying semi-standard options (Y□), write in "Y" as follows and put an additional remarks for "Y" numbers.

Example: NDP 33Y-1122-5, 7 and add "Y" number in writing. (Please consult with factory in case of a multiple of "Y" Spec. are required.)

### Overall Dimensions



(Option) With Air-set & Manifold (Top Connection)

- Notes:
1. Process connections can be made in any of two positions of top or bottom, and are interchangeable at the field.
  2. Vertically mount the transmitter. Do not exceed 3 degrees from vertical in either directions.
  3. As for cover dimensions of corrosion-proof type ND, refer to spec. sheet No. SS2-519-060 because of its difference. (Except for stainless steel cover.)

\* Specifications are subject to change without notice.

### Ordering Information

When ordering, please specify:

- 1) Model No.
- 2) Differential range
- 3) Options

\* Reference instruction manual . . . . FF-2236

\* Reference spec. sheets . . . . Steam jacket (SS2-519-050)  
 . . . . Corrosion-proof (SS2-519-060)