

Yamatake-Honeywell

SPECIFICATION

Specifications

Measuring range: 0-500 to 0-6,500 mmH₂O, continuously adjustable.

Process connection:

PT 1/2 (ISO R7 1/2") or NPT 1/2 tap thread for cover materials of Carbon steel, SUS 316 st. st. and Titanium.

PF 1/2-A (ISO R228 1/2") tap thread for cover materials of Monel lining and Tantalum lining.

Air connection: PT 1/4 (ISO R7 1/4") or NPT 1/4 tap thread

Supply air pressure: 1.4 ± 0.14 kg/cm²

Output: 0.2 to 1.0 kg/cm²

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

Operating pressure: -0.5 to +100 kg/cm²G.

Operating temperature:

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

At transmitter (ambient); -30 to +80°C

Relative humidity: 10 to 90% RH

Overload protection: To 100 kg/cm²G 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), SUS 316 st. st.,

Monel lining (base SUS 316, max. pressure 70 kg/cm²G),

Tantalum lining (base SUS 316, max. pressure 70 kg/cm²G),

Titanium (max. pressure 50 kg/cm²G) and

PVC (operating pressure -0.1 to +15kg/cm²G and operating temperature 0 to 55°C)

Seal diaphragm; SUS 316 st. st., Monel, Tantalum and Titanium

Wet part gasket; Teflon

Transmitter case; Aluminum die-cast

Finish: Acryl baking finish

(For corrosion-resistant and silver finish, refer to the optional 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 or horizontal 2 inch pipe.

Net weight: Approx. 10 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 6,500 mmH₂O

Elevation: Up to 6,000 mmH₂O

(Span plus elevation; Up to 6,500 mmH₂O)

(2) **Air set (Filter & pressure regulator)**

(3) **Integral orifice (SUS 316 st. st.) assembly**

Item (4) - (9) are the semi-standard options.

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

Measuring range; 0 - 250 to 0 - 3,250 mmH₂O

Accuracy; ±0.75% FS (±1.0% FS for span less than 500 mmH₂O.)

Suppression; Up to 6,500 mmH₂O

Elevation; Up to 6,250 mmH₂O

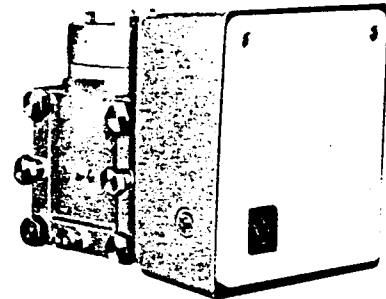
(Span plus elevation; Up to 6,500 mmH₂O)

PNEUMATIC

DIFFERENTIAL PRESSURE TRANSMITTER

(MIDDLE DIFFERENTIAL PRESSURE RANGE)

MODEL ; NDP 22



NDP22

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

Wet part material; SUS 316 st. st.

Sealing liquid; Daifloil

Temperature range (Both fluid and ambient); -20 to +45°C

(6) **Vacuum use: (Y 23)**

Measuring range; 0 - 1,360 to 0 - 6,500 mmH₂O, continuously adjustable.

Static pressure range; -1 to +35 kg/cm²G.

(Note: Rangeability around absolute zero pressure varies with the measuring fluid temperature)

Ambient temperature; -10 to +80°C

Damping adjustment; Fixed

Process connections; Top or bottom

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

Maximum pressure; 50 kg/cm²G

Maximum temperature; 300°C

(Body temperature must not exceed 120°C)

Connection; PT 1/4 (ISO R7 1/4") or NPT 1/4 thread

Material; Carbon steel (SF 45)

(8) **SUS 304 st. st. bolts: (Y 66)**

Maximum pressure; 70 kg/cm²G

(9) **Corrosion-resistant and silver finish (Y138A ~ D)**

Corrosion-resistant (Acryl baking) finish (Y138A);

Resistance for corrosive gases.

Corrosion-proof (Epoxy baking) finish (Y138B);

Resistance for corrosive liquids.

Silver-normal (Acryl baking) finish (Y138C);

Protection for temperature rise of device caused by direct sun light, radiation heat, etc.

Silver-corrosion-resistant (Acryl baking) finish (Y138D)

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

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

(10) **Reverser unit:**

Material; Carbon steel (SF 45) or SUS 316 st. st.

(11) **For chlorine gas**

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

Seal diaphragm mat'l: Tantalum

Operating temperature; -20 to +80°C (SUS 316 cover)

0 to 55°C (PVC cover)

Operating pressure; -0.5 to +100 kg/cm²G (SUS 316 cover)

-0.1 to +15 kg/cm²G (PVC cover)

Yamatake-Honeywell Co., Ltd.

Process Control Division

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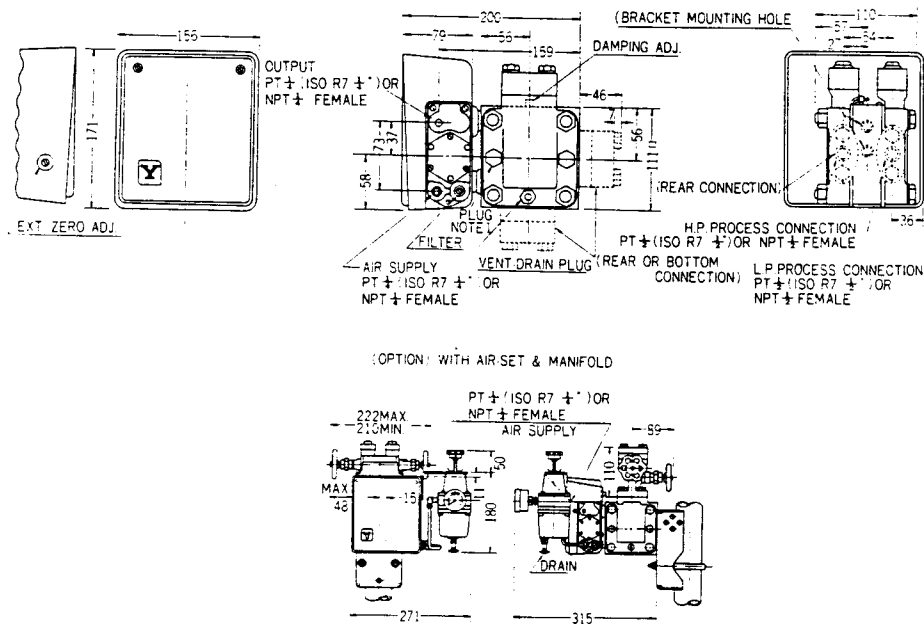
Model Number Table

Ex. NDP 22-1122-5, 7

Basic Model No.	Cover Mat'l		Diaphragm Mat'l		Option	Description
	H.P	L.P	H.P	L.P		
NDP 22						Pneumatic, Middle Range
					-1	Carbon Steel (SF 45)
					-2	Stainless Steel (SUS 316)
					-3	Monel Lining (Base SUS 316)
					-4	Tantalum Lining (Base SUS 316)
					-5	Rigid PVC
					-6	Titanium
				1		Carbon Steel (SF 45)
				2		Stainless Steel (SUS 316)
				3		Monel Lining (Base SUS 316)
				4		Tantalum Lining (Base SUS 316)
				5		Rigid PVC
			6		Titanium	
			2		Stainless Steel (SUS 316)	
			3		Monel	
			4		Tantalum	
			6		Titanium	
			2		Stainless Steel (SUS 316)	
			3		Monel	
			4		Tantalum	
			6		Titanium	
					-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 22Y-1122-5, 7 and add "Y"-number in writing. (Please consult with factory in case of a multiple of "Y" spec. are required.)

Dimensions



- Notes:
1. Process connections can be made in any of three positions of top, bottom or rear and are interchangeable at the field.
 2. Vent-drain plugs on the cover must be replaced depending on connecting positions.
 3. Universal mounting bracket enables the meter to be mounted to either vertical or horizontal 2 inch pipe in any of three positions.
 4. Vertically mount the transmitter. Do not exceed 5 degrees from vertical in either directions.
 5. As for cover dimensions of corrosion-proof type ND, refer to spec. sheet No. SS-29-106 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
- 4) Process connections (Top connections standard. Changeable in the field to bottom or rear connections.)

* Reference instruction manual . . . OM2-512-110

* Reference specification sheets . . . SS2-519-050 (Steam jacket)

. . . SS2-519-060 (Corrosion-proof type)