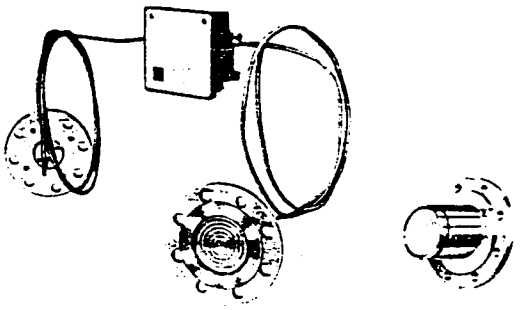
Yamatake-Honeywell SPECIFICATION

PNEUMATIC DIFFERENTIAL PRESSURE TRANSMITTER

REMOTE SEAL DIAPHRAGM TYPE (HIGH DIFFERENTIAL PRESSURE RANGE)

MODEL ; NDP 71



NDP 71 (Flush Diaphragm Type)

NDP 71 (Extended Diaphragm Type)

Specifications

Measuring range: 0～5,000 to 0～50,000 mmH_2O, continuously adjustable.

Process connection:
- Flush disphragm type;
  - 80 mm-JIS 10K, 30K (RF) equivalent flange
  - 3"-ABSU 150, 300 (RF) equivalent flange
- Extended diaphragm type;
  - 100 mm-JIS 10K, 30K (RF) equivalent flange
  - 4"-ANSI 150, 300 (RF) equivalent flange
  - Length of extended part; 100 or 150 mm

Capillary tube length: 1.5, 3, 5 meters
(Note: When used as a level meter, beware of the head pressure of sealing liquid (Sp. Gr. 0.967))

Air connection: PT¼ (ISO R7 ¼") or NPT¼ tap thread

Supply air pressure: 1.4 ≒ 0.1 kg/cm^2

Output: 0.2～1.0 kg/cm^2

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

Pressure limit: −0.5 kg/cm^2G to maximum rated flange pressure.

Temperature limit:
- At meter body (process fluid); −40 ⇼ +120°C
- At transmitter (ambient); −30 ～+80°C

Humidity limit: 10～90%RH

Overload protection: To maximum rated flange pressure.

Damping adjustment (with 3 meters capillary tube):
- Continuously adjustable. (Time constant is 50 sec. or more at maximum damping.)

Accuracy: ±0.5%FS

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

Materials:
- Process connecting flange:
  - Wet-part; SUS 316 st. st., Monel lining, Tantalum lining and Titanium
  - Flange; Carbon steel (SF 45) and SUS 316 st. st.
- 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 feature, refer to the optional specification.)

Color of finish: Cover; Light beige
Case; Dark beige

Mounting: Directly flange mounted to the vessel. (transmitter unit is mounted on vertical or horizontal 2 inch pipe.)

Net weight: Approx. 19.7 kg with 80 mm JIS 10K flange. (Add 1.8 kg for air set.)

Options (Accessories)

Following accessories are optionally available.
Item (1), (2) are the standard options.

(1) Suppression and elevation:
- Suppression; Up to 50,000mmH_2O
- Elevation; Up to 45,000mmH_2O
- (Span plus elevation: up to 50,000mmH_2O)

(2) Air set (Filter and pressure regulator)

Item (3)～(10) are the semi-standard options.

(3) Half range: (Y 20)
- Measuring range; 0～2,500 to 0～25,000mmH_2O
- Accuracy; ±0.75% FS (±1.0% FS for span less than 5,000mm H_2O.)
- Suppressions; Up to 50,000mmH_2O
- Elevation; Up to 47,500mmH_2O (Span plus elevation; Up to 50,000mmH_2O)

(4) Vacuum use: (Y 23)
- Static pressure range; −1 kg/cm^2G to flange rated pressure.
- (Note: Rangeability needing absolute zero pressure varies with the measuring fluid temperature.)
- Sealing liquid; Special silicon oil (Sp. Gr. 1.07)
- Damping adjustment; Fixed

(5) Steam jacket: (Y 29)
- Maximum working pressure; 50 kg/cm^2G
- Maximum working temperature; 200°C
- (Flange temp.; St'd type . . . 120°C, Hi-temp type . . . 200°C
- Connection: PT¼ (ISO R7 ¼") or NPT¼ tap thread

(6) High temperature use: (Y 62)
- Working temperature range
  - Fluid; −10～+200°C
  - Ambient; −10～+80°C
- Sealing liquid; Special Silicon oil (Sp. Gr. 107)

(7) Low temperature use (SUS 316 st. st. flange): (Y 63)
- Working temperature range;
  - Fluid; −80～+60°C
  - Ambient; −30～+60°C
- Sealing liquid; Special anti-freeze liquid (Sp. Gr. 0.86)

(8) High pressure use (Wafer type): (Y 65)
- Working pressure range; −0.5～+100 kg/cm^2G
- Process connection; Fit to 3"-ANSI 1500 (RF) flange.

(9) SUS 304 stainless steel body bolts: (Y 66)

(10) 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 direct 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.)

(11) For chlorine gas
- Sealing liquid; Fluorine oil
- Seal diaphragm mat'l; Tantalum
- Working temp. limit; −20～+80°C
- Min. working pressure; 0 kg/cm^2G

Yamatake-Honeywell Co. Ltd.
Process Control Division

Sales Headquarters : Nagai International Bldg., 12-19, Shibuya 2 chome, Shibuya-ku, Tokyo, 150 Japan
Tel : (03) 409-7171 Telex : J22902 Cable : YAMATAKE CO

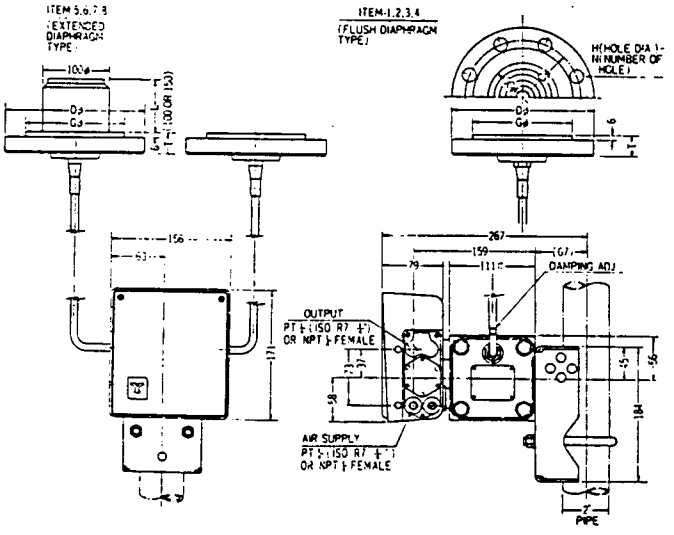
Model Number Table

Ex. NDP 71-11221-5, 7

Basic Model No.	Flange Mat'l H.P	Flange Mat'l L.P	Diaphragm Mat'l H.P	Diaphragm Mat'l L.P	Flange Rating	Option	Description
NDP 71							Pneumatic, High Range
	–1						Carbon Steel (SF 45)
	–2						Stainless Steel (SUS 316)
		1					Carbon Steel (SF 45)
		2					Stainless Steel (SUS 316)
			2				Stainless Steel (SUS 316)
			3				Monel
			4				Tantalum } [Not Available for Extended Diaphragm Type.]
			6				Titanium
				2			Stainless Steel (SUS 316)
				3			Monel
				4			Tantalum } [Not Available for Extended Diaphragm Type.]
				6			Titanium
					1		Flush Diaphragm Type 80mm-JIS 10K (RF) equiv. flange
					2		" 80mm-JIS 30K (RF) equiv. flange
					3		" 3"-ANSI 150 (RF) equiv flange
					4		" 3"-ANSI 300 (RF) equiv. flange
					5		Extended Diaphragm Type 100mm-JIS 10K (RF) equiv. flange
					6		" 100mm-JIS 30K (RF) equiv. flange
					7		" 4"-ANSI 150 (RF) equiv. flange
					8		" 4"-ANSI 300 (RF) equiv. flange
						–5	Elevation
						–6	Suppression
						–7	Air-Set

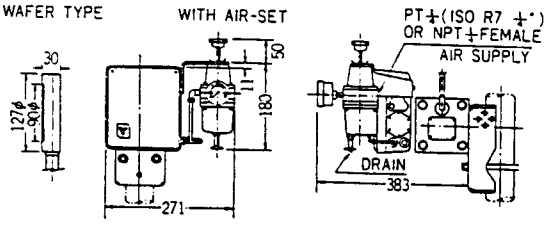
Note: When specifying semi-standard options (Y □), write in "Y" as follows and put an additional remarks for "Y" numbers. Example: NDP 71Y-11221-5, 7 and add "Y" number in writing. (Please consult with factory in case of multipe of "Y" spec. are required.)

Dimensions



Flange size (Unit: mm)

ITEM	Flange Rating Equivalent		D	T	G	C	H	N
1	JIS10K	80 (mm)	185	26	130	150	18	8
2	JIS30K		210	36	140	170	23	8
3	ANSI 150	3 (INCH)	191	31	127	152.5	19	4
4	ANSI 300		210	36	127	168	22	8
5	JIS10K	100 (mm)	210	26	155	175	18	8
6	JIS30K		240	40	160	195	25	8
7	ANSI 150	4 (INCH)	229	31	157	190.5	19	8
8	ANSI 300		254	40	157	200	22	8



Note: 1. Vertically mount the transmitter. Do not exceed 5 degrees from vertical in either directions.
2. 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

※ Reference instruction manual FF-2246-2
※ Reference specification sheets. . . . . SS-29–105 (Steam jacket)
. . . . . SS-29-106 (Corrosion-proof type)