

Yamatake-Honeywell

SPECIFICATION

Specifications

Measuring range: 0~5,000 to 0~50,000 mmH₂O, continuously adjustable.

Process connection:

PT $\frac{1}{2}$ (ISO R7 $\frac{1}{2}$ "') or NPT $\frac{1}{2}$ tap thread Carbon steel,
SUS316 st. st., Titanium and PVC cover material
PF $\frac{1}{2}$ -A (ISO R228 $\frac{1}{2}$ "') tap thread Monel lining and
Tantalum lining cover materials

Electrical conduit connection: PF $\frac{1}{2}$ -A (ISO R228 $\frac{1}{2}$ "') tap thread

Power supply: DC 21.6~44V

Output: 4~20mA DC (External load ; 600 ohms at 24V, 1,400 ohms at 42 V.)

Pressure limit: -0.5~+100 kg/cm²G

Temperature limit:

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

At transmitter (ambient); -30~+80°C

Humidity limit: 10~90% RH

Overload protection: To 100 kg/cm²G in either direction.

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

Transmitter housing:

Explosion-proof type; When with an explosion-proof terminal box, Class d2G4 of JIS C0903 code approved (JIS F8001 Class 3 splash-proof included). Also suitable for the NEC Class 1, Group D, Division 1.

Weatherproof type; Equivalent to JIS F8001 Class 3 splash-proof construction.

Intrinsic safety type; Class i3nG5 of JIS C0903 code for hazardous location, including above splash-proof construction.

(Note: Intrinsic safety type . . .
Power supply; DC23~27.5V
Ambient temperature limit; -30~+60°C)

Suppression and elevation (zero spring):

Spring No. 1

Suppression ; Up to 23,000 mmH₂O.

Elevation ; Up to 15,000 mmH₂O.

(Span plus elevation ; Up to 50,000 mmH₂O.)

(Note: Suppression and elevation exceeding above limits) are also available as an option.

Accuracy: $\pm 0.5\%$ 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, pressure limit 70kg/cm²G),

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

Titanium (pressure limit 50 kg/cm²G) and

PVC (pressure limit -0.1~+15 kg/cm²G

and temperature limit 0~55°C.)

Seal diaphragm ; SUS 316, Monel, Tantalum and Titanium

Wet part gasket ; Teflon

Indicator window;

Explosion-proof type . . . Glass

Weatherproof and intrinsic safety type . . . Poly-carbonate

Transmitter case; Aluminum alloy shell mold

Finish: Acryl baking finish

(For corrosion-resistant and silver finish, refer to the optional specification.)

Color of finish: Cover ; Light beige

Case ; Dark beige

Mounting: On vertical or horizontal 2 inch pipe.

Net weight:

Explosion-proof type ; 15.9kg (Add 1.6kg for explosion-proof terminal box.)

Weatherproof type ; 11.9 kg

Intrinsic safety type ; 11.9 kg

Options (Accessories)

Following accessories are optionally available.

(1) High suppression and high elevation:

Spring No. 2

High elevation ; 15,000~45,000 mmH₂O

(Span plus elevation ; Up to 50,000 mmH₂O.)

Spring No. 3

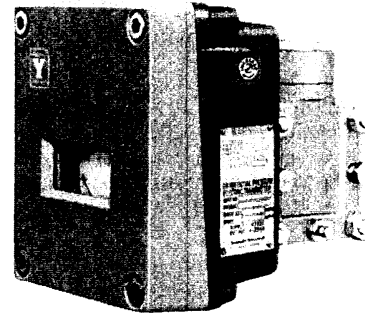
High suppression ; 23,000~50,000 mmH₂O

ELECTRONIC

DIFFERENTIAL PRESSURE TRANSMITTER

(HIGH DIFFERENTIAL PRESSURE RANGE)

MODEL ; NDI 11



NDI 11
(Explosion-proof type housing)

- (2) **Explosion-proof terminal box:** 3 way.
Flame-proof conduit screw-coupling type. (When flame-proof packing type is employed, the JIS explosion-proof requirements can be met by using the adapter in addition.)
Item (3)~(11) are the semi-standard options.
- (3) **Half range:** (Y 20)
Measuring range ; 0~2,500 to 0~25,000 mmH₂O.
Accuracy ; $\pm 0.75\%$ FS ($\pm 1.0\%$ FS for span less than 5,000 mmH₂O.)
Suppression ; Up to 50,000 mmH₂O
Elevation ; Up to 47,500 mmH₂O (Span plus elevation ; Up to 50,000 mmH₂O)
- (4) **Oil free:** (Y 21)
Wet part material ; SUS 316 st. st.
Sealing liquid ; Daifloil
Temperature limit (Fluid and ambient) ; -20~+45°C
- (5) **Vacuum use:** (Y 23)
Static pressure range ; -1~+35 kg/cm²G
(Note: Rangeability nearing absolute zero pressure varies with the measuring fluid temperature.)
Damping adjustment ; Fixed
Process connection ; Top or bottom
- (6) **Steam jacket:** (Y 29)
Maximum working pressure ; 50 kg/cm²G
Maximum working temperature ; 300°C
(Body temperature must not exceed 120°C.)
Connection ; PT $\frac{1}{4}$ (ISO R7 $\frac{1}{4}$ "') or NPT $\frac{1}{4}$ tap thread
Material ; Carbon steel (SF 45)
- (7) **PTB (West Germany) approved intrinsic safety:** (Y 59)
Power supply ; DC 23~28 V
Ambient temperature limit ; -30~+40°C
- (8) **SUS 304 stainless steel body bolts:** (Y 66)
Maximum working pressure ; 70 kg/cm²G
- (9) **Blind type transmitter** (Y 126)
- (10) **Corrosion-resistant and silver finish** (Y138A~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 not applicable for alkaline gases.)
- (11) **Induction lightning arrester** (Y 145)
- (12) **Reverser unit:**
Material ; Carbon steel (SF 45) or SUS 316 st. st.

Yamatake-Honeywell Co., Ltd.

Process Control Division

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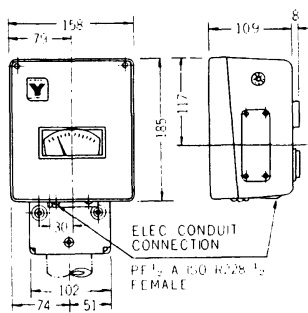
Model Number Table

Basic Model No.	Cover Mat'l		Diaphragm Mat'l		Housing	Option	Description
	H,P	L,P	H,P	L,P			
NDI 11							Electronic, High 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
					W		Weatherproof Type
					E		Explosion-proof Type
					H		Intrinsic Safety Type
						- 5	High Elevation
						- 6	High Suppression
						- 8	Explosion-proof Terminal Box
						- 8A	" (With One Flame-proof Packing Type) Cable Connecting Adapter
						- 8B	" (With Two Flame-proof Packing Type) Cable Connecting Adapters

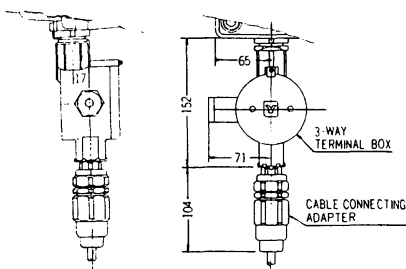
Note: When specifying semi-standard options (Y□), write in "Y" as follows and put an additional remarks for "Y" numbers.
 Example: NDI 11Y-1122E-5, 8 and add "Y" number in writing. (Please consult with factory in case of a multiple of "Y" spec. are required.)

Overall Dimensions

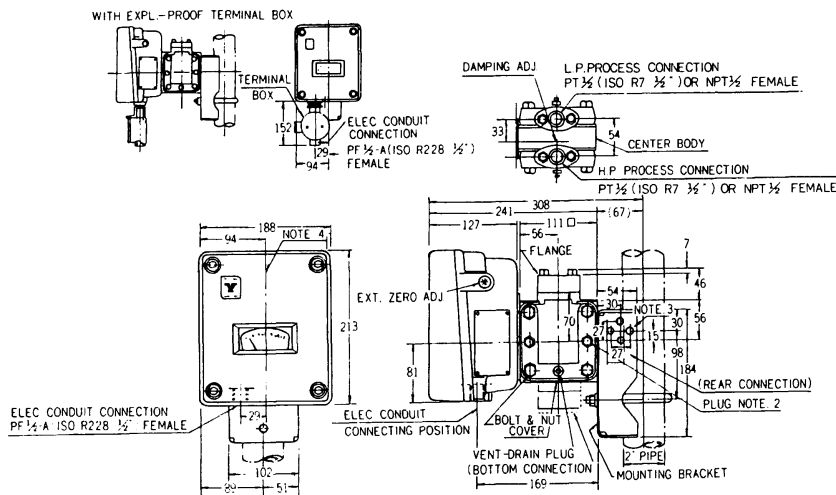
Weatherproof and Intrinsic Safety Type



WITH EXPL-PROOF TERMINAL BOX AND ADAPTER



Explosion-proof Type



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. SS2-519-060 because of its difference. (Except for stainless steel cover.)

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.)

*Specifications are subject to change without notice.

*Reference instruction manual FF-2233

*Reference specifications sheet. SS2-519-050 (Steam jacket)
 SS2-519-060 (Corrosion-proof type)