

Yamatake-Honeywell

SPECIFICATION

Specifications

Measuring range: 0~500 to 0~5,500mmH₂O, continuously adjustable.

Process connection:

- (1) 13.6 x 5 [mm dia.] nipple for butt welding (Pitch dimension of HP and LP taps; 85mm)
- (2) With manifold ½" socket welding (Pitch dimension of HP and LP taps; 110mm)

Electrical conduit connection: PF½ (ISO R228 ½") tap thread

Power supply: DC 21.6~44V

Output: 4~20mA DC (External load; 600 ohms at 24V, 1400 ohms at 42V.)

Operating pressure: -0.5~+500 kg/cm²G

Operating temperature:

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

At transmitter (ambient); -30~+80°C

Relative humidity: 10~90% RH

Overload protection: To 500 kg/cm²G in either direction.

Damping adjustment: Continuously adjustable. (Time constant is 20 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; DC 23~27.5V
Ambient temperature; -30~+60°C)

Suppression and elevation (zero spring):

Spring No. 1 Suppression; Up to 3,000mmH₂O
Elevation; Up to 1,300mmH₂O

(Span plus elevation; Up to 5,500mmH₂O)

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

Accuracy: ±0.5% FS

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

Materials:

Cover (pressure chamber); Carbon steel (SF 45) and SUS 316

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

Wet-part gasket; Teflon

Transmitter case; Aluminum alloy shell mold

Finish: Acryl baking finish

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

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:

Explosion-proof type; 32.5kg (Add 1kg for explosion-proof terminal box.)

Weatherproof type; 28.5kg

Intrinsic safety type; 28.5kg

Options (Accessories)

Following accessories are optionally available.

Item (1), (2) are the standard options.

(1) **High suppression and high elevation:**

Spring No. 2

High elevation; 1,300~5,000mmH₂O

(Span plus elevation. Up to 5,500mmH₂O)

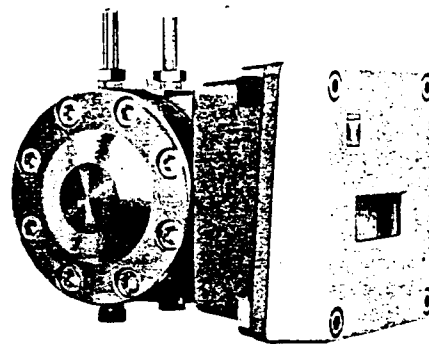
Spring No. 3

High suppression; 3,000~5,500mmH₂O

(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.)

ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER HIGH STATIC PRESSURE TYPE (MIDDLE DIFFERENTIAL PRESSURE RANGE) MODEL : NDI 82



NDI 82
(Explosion-proof Type Housing)

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

(3) **Half range: (Y20)**

Measuring range; 0~250 to 0~2,750mmH₂O

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

Suppression; Up to 5,500mmH₂O

Elevation; Up to 5,250mmH₂O (Span plus elevation; Up to 5,500mmH₂O)

(4) **Steam jacket: (Y29)**

Operating pressure; 10 kg/cm²G (Max.)

Operating temperature; 250°C (Max.)

(Body temperature must not exceed 120°C)

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

Material; Carbon steel (SF 45)

(5) **PTB (West Germany) approved intrinsic safety: (Y59)**

Power supply; DC23~28V

Ambient temperature; -30~+40°C

(6) **SUS 304 stainless steel bolts: (Y66)**

Operating pressure; 300 kg/cm²G (Max.)

(7) **Wafer type (High pressure use): (Y111)**

Capillary tube length; 1.5m or 3m (both HP and LP)

Process connection; 3 inch wafer (RF) type

Materials; Process connecting wafer SUS 316 st. st.

Seal diaphragm SUS 316 st. st.

Operating temp.; Process fluid -40~+120°C

Ambient -10~+80°C

(8) **Blind type transmitter (Y126)**

(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) **Induction lightning arrester (Y145)**

(11) **For chlorine gas (When SUS316 cover mat'l)**

Sealing liquid; Fluorine oil

Seal diaphragm mat'l; Tantalum

Operating temperature; -20~+80°C

Operating pressure; -0.5~+500 kg/cm²G

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

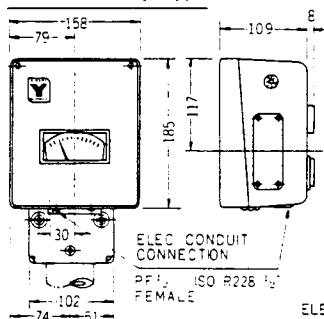
Ex. NDI 82-1122E-5, 8

| Basic Model No. | Cover Mat'l | | Diaphragm Mat'l | | Housing | Option | Description |
|-----------------|-------------|-----|-----------------|-----|---------|---|---------------------------|
| | N.P | L.P | H.P | L.P | | | |
| NDI 82 | | | | | | | Electric, Middle 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 |
| | | | | 2 | | | Stainless Steel (SUS 316) |
| | | | | 3 | | | Monel |
| | | | | 4 | | | Tantalum |
| | | | | | 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 | |

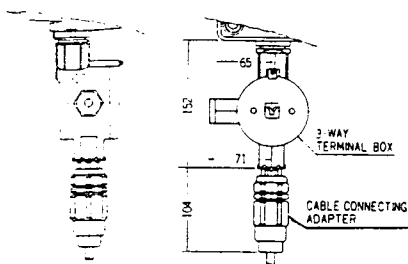
Note: When specifying semi-standard options (Y □), write in "Y" as follows and put an additional remarks for "Y" numbers.
 Example: NDI 82Y-1122E-5, 8 and add "Y" number in writing. (Please consult with factory in case of a multiple of "Y" spec. are required.)

Overall Dimensions

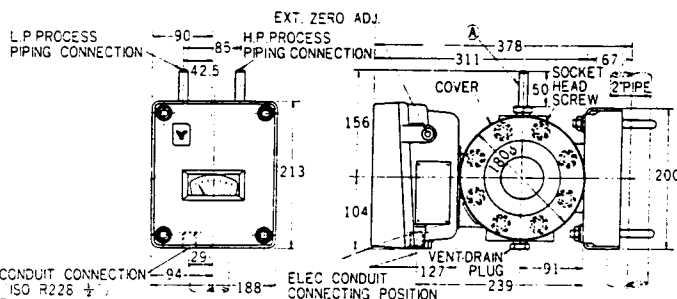
Weatherproof and Intrinsic Safety Type



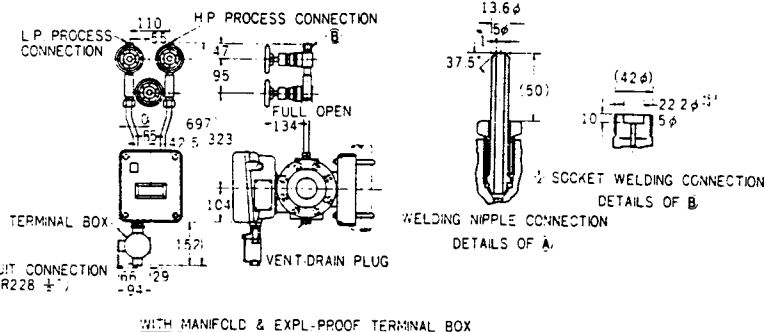
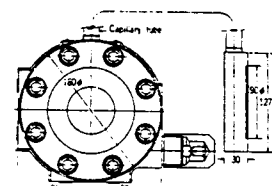
WITH EXPL-PROOF TERMINAL BOX AND ADAPTER



Explosion-proof Type



Wafer Type



- Notes:
1. Process connections can be made in any of two positions of top or bottom and are interchangeable at the field.
 2. Vent-drain plugs and nipples on the cover must be replaced depending on connecting positions.
 3. Vertically mount the transmitter. Do not exceed 5 degrees from vertical in either directions.

Ordering Information

When ordering, please specify:

- 1) Model No.
- 2) Differential range
- 3) Options
- 4) Process connections (Top or bottom)

*Specifications are subject to change without notice.

*Reference instruction manual OM2-511-810

*Reference specification sheets. SS2-519-050 (Steam jacket)
 SS2-519-060 (Corrosion-proof type)