

## Yamatake-Honeywell

## SPECIFICATION

## Specifications

**Measuring range:** 0 ~ 500 to 0 ~ 6,500 mmH<sub>2</sub>O, 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 $\frac{1}{2}$  (ISO R228  $\frac{1}{2}$ " ) tap thread

**Power supply:** DC21.6 ~ 44V

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

**Operating pressure:** -0.5 ~ +100kg/cm<sup>2</sup>G

**Temperature:**

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

At transmitter (ambient); -30 ~ +80°C

**Relative humidity:** 10 ~ 90% RH

**Overload protection:** To 100 kg/cm<sup>2</sup>G in either direction.

**Damping adjustment:** Continuously adjustable.

(Time constant is 30sec. 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 3,000 mmH<sub>2</sub>O

Elevation; Up to 1,300 mmH<sub>2</sub>O

(Span plus elevation; Up to 6,500 mmH<sub>2</sub>O)

(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/cm<sup>2</sup>G),

Tantalum lining (base SUS 316, pressure limit 70kg/cm<sup>2</sup>G),

Titanium (pressure limit 50kg/cm<sup>2</sup>G) and PVC (pressure

limit -0.1 ~ +15kg/cm<sup>2</sup>G 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 (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:** Explosion-proof type; 15.7kg (Add 2kg for integral orifice assembly and 1.6kg for explosion-proof terminal box with adapter.)

Weatherproof type and Intrinsic safety type; 11.7kg

## Options (Accessories)

Following options are available.

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

Spring No. 2

High elevation; 1,300 ~ 6,000 mmH<sub>2</sub>O

(Span plus elevation; Up to 6,500 mmH<sub>2</sub>O)

Spring No. 3

High suppression; 3,000 ~ 6,500 mmH<sub>2</sub>O

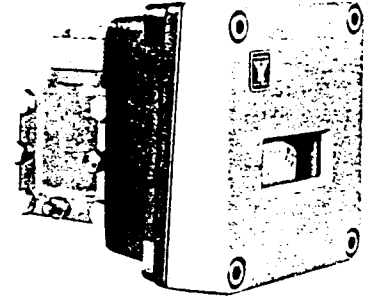
(2) **Explosion-proof terminal box: 3 way.**

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 is addition.)

## ELECTRONIC

DIFFERENTIAL PRESSURE TRANSMITTER  
(MIDDLE DIFFERENTIAL PRESSURE RANGE)

MODEL; NDI 22



NDI 22

(Explosion-proof type housing)

(3) **Integral orifice assembly (SUS 316 stainless steel)**

Item (4) ~ (14) are the semi-standard options.

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

Measuring range; 0 ~ 250 to 0 ~ 3,250 mmH<sub>2</sub>O

Accuracy;  $\pm 0.75\%$  FS ( $\pm 1.0\%$  FS for span less than 500 mmH<sub>2</sub>O.)

Suppression; Up to 6,500 mmH<sub>2</sub>O

Elevation; Up to 6,250 mmH<sub>2</sub>O (Span plus elevation; Up to 6,500 mmH<sub>2</sub>O.)

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

Wet part material; SUS 316 st. st.

Sealing liquid; Fluorine oil

Temperature limit (Both fluid and ambient); -20 ~ +45°C

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

Measuring range; 0 ~ 1,360 to 0 ~ 6,500 mmH<sub>2</sub>O

Static pressure range; -1 ~ +35 kg/cm<sup>2</sup>G

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

Damping adjustment; Fixed

Process connections; Top or bottom

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

Maximum working pressure; 50 kg/cm<sup>2</sup>G

Maximum working temperature; 300°C

(Body temperature must not exceed 120°C.)

Connection; PT $\frac{1}{2}$  (ISO R7  $\frac{1}{4}$ " ) or NPT $\frac{1}{4}$  tap thread

Material; Carbon steel (SF 45)

(8) **PTB (West Germany) approved intrinsic safety: (Y 59)**

Power supply; DC23 ~ 28V

Ambient temperature limit; -30 ~ +40°C

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

Maximum working pressure; 70 kg/cm<sup>2</sup>G

(10) **Blind type transmitter: (Y 126)**(11) **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 is not applicable for alkaline gases.)

(12) **Induction lightning arrester: (Y 145)**(13) **Reverser unit:**

Material; Carbon steel (SF 45) or SUS 316 stainless steel

(14) **For chlorine gas:**

Sealing liquid; Fluorine oil

Seal diaphragm mat'l; Tantalum

Working temp. limit; -20 ~ +80°C

Min. working pressure; 0 kg/cm<sup>2</sup>G

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