

Specifications

Specifications for wet part material of SUS316 st. st.:

Model No.	Measuring Range [kg/cm ²]	Type of Flange or screw	Operating Pressure [kg/cm ² G]
NK131	0~100 to 0~700	PF 1½ (ISO R228 1½") male (34mmø button type diaphragm)	-1~+700
NK132	0~25 to 0~250	PF 1½ (ISO R228 1½") male (34mmø button type diaphragm)	-1~+300
NK133	0~7 to 0~70	2"-ANSI wafer type	-1~+105
NK134	0~3.5 to 0~35	2"-ANSI wafer type	-1~+52.5
		80mm-JIS30K	-1~+48
		*100mm-JIS30K	
NK135	0~0.7 to 0~7	3"-ANSI300	-0.5~+10.5
		*4"-ANSI300	
		80mm-JIS10K	
NK136	0~0.2 to 0~2	*100mm-JIS10K	-0.5~+3
		3"-ANSI150	
		*4"-ANSI150	

* Extended diaphragm type

Specifications for wet part materials of Monel, Tantalum and Titanium:

Model No.	Measuring Range [kg/cm ²]	Type of Flange	Operating Pressure [kg/cm ² G]
NK133	0~7 to 0~70	3"-ANSI wafer type	-1~+105
NK134	0~3.5 to 0~35	3"-ANSI wafer type	-1~+52.5
		80mm-JIS30K	-1~+48
		3"-ANSI300	
NK135	0~0.7 to 0~7	80mm-JIS10K	-0.5~+10.5
		3"-ANSI150	
NK136	0~0.2 to 0~2	80mm-JIS10K	-0.5~+2
		3"-ANSI150	

Note: Titanium Except wafer type

Process connection: Flange or screw connection

Extended length (for extended diaphragm type):

100 and 150mm

Length of capillary tube: 1.5, 3 and 5m

Electrical conduit connection: PF ½ (ISO R228 ½") female

Power supply: DC 21.6~44V

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

Operating temperature:

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

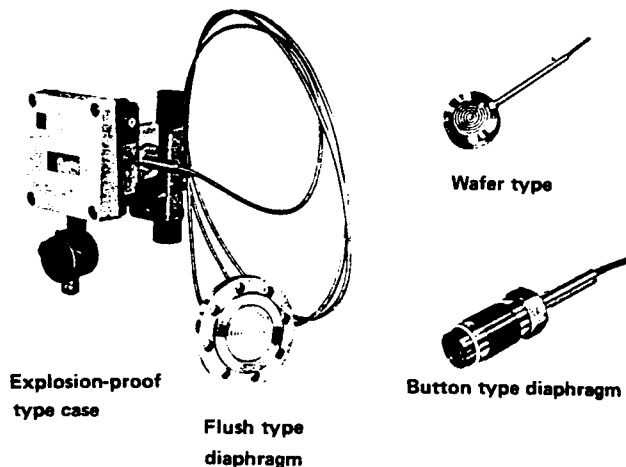
At transmitter (ambient); -30~+80°C

Relative humidity: 10~90% RH

REMOTE SEAL DIAPHRAGM TYPE ELECTRONIC

PROCESS PRESSURE TRANSMITTER

MODEL; NKI 31/32/33/34/35/36



Overload protection:

NKI 31; Up to 750 kg/cm² G

NKI 32; Up to 320 kg/cm² G

NKI 33; Up to 140 kg/cm² G

NKI 34; Up to 70 kg/cm² G

NKI 35; Up to 14 kg/cm² G

NKI 36; Up to 4 kg/cm² G

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 Splashproof 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; -30~+60°C)

Suppression and elevation (zero spring):

	(kg/cm ² G)					
	NKI 31	NKI 32	NKI 33	NKI 34	NKI 35	NKI 36
Suppression	Up to -1	Up to -1	Up to -1	Up to -1	Up to -0.5	Up to -0.5
Elevation	Up to 150	Up to 50	Up to 15	Up to 8	Up to 1.5	Up to 0.4
Span plus elevation	Up to 700	Up to 300	Up to 105	Up to 52.5	Up to 10.5	Up to 3

Note: Elevation exceeding above limits are also available as an option.

Accuracy: ±0.5% FS

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

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

Materials:

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

Process connecting flange; Carbon steel and SUS 316 st. st. (Wet part materials; SUS 316 st. st., Monel, Tantalum and Titanium)

Gasket; Teflon (Wafer type only)

Transmitter case; Aluminum alloy shell mold

Finish: Acryl baking finish

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

Color finish: Cover; Light beige (Munsell 4Y 7.2/1.3)
Case; Dark beige (Munsell 10YR 4.7/0.5)

Mounting:

Transmitter unit; Mounted on vertical or horizontal 2-inch pipe.

Flange; Directly flange connection to the process vessel.

Button type diaphragm; Directly screw connection to the process vessel.

Net weights:

Explosion-proof type; 16.1kg with 80mm-JIS10K flange. (Add 1.6kg for explosion-proof terminal box with adapter.)

Weather-proof type and Intrinsic safety type; 12.1kg with 80mm-JIS 10K flange.

Options (Accessories)

Following accessories are optionally available.

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

(1) *High elevation:*

	Spring No. 2 High elevation [kg/cm ² G]	Spring No. 4 High elevation [kg/cm ² G]	Span plus elevation [kg/cm ² G]
NKI 31	150~600	—	Up to 700
NKI 32	50~225	225~275	Up to 300
NKI 33	15~60	60~98	Up to 105
NKI 34	8~30	30~49	Up to 52.5
NKI 35	1.5~6	6~9.8	Up to 10.5
NKI 36	0.4~1.8	1.8~2.8	Up to 3

(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.)

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

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

Power supply; DC 23 ~ 28V
Ambient temperature; -30 ~ +40°C

(4) *Vacuum use: (Y 68)*

Operating temperature; -10 ~ +120°C (Fluid),
-10 ~ +80°C (Ambient)

Operating pressure;

NKI 31; 0 kg/cm² abs. ~ 700 kg/cm² G

NKI 32; 0 kg/cm² abs. ~ 300 kg/cm² G

NKI 33; 0 kg/cm² abs. ~ 105 kg/cm² G

NKI 34; 0 kg/cm² abs. ~ 52.5 kg/cm² G (Wafer type)

0 kg/cm² abs. ~ 48 kg/cm² G (Flange type)

NKI 35; 20mmHg abs. ~ 10.5 kg/cm² G

NKI 36; 40mmHg abs. ~ 3 kg/cm² G

(5) *High temperature use: (Y 69)*

Operating temperature; -10 ~ +200°C (Fluid),
-10 ~ +80°C (Ambient)

Operating pressure; Min. -0.5 kg/cm² G

Operating pressure at 200°C (For model NKI 34 only);
80mm, 100mm-JIS 30K (RF) and 3"-, 4"-ANSI
300 (RF) equivalent . . . Max. 48 kg/cm² G

Sealing liquid; Special silicon oil

(6) *Low temperature use (except corrosion-proof type): (Y70)*

Operating temperature; -80 ~ +60°C (Fluid),

NKI 31 -10 ~ +60°C (Ambient),

NKI 32 ~ 36 -30 ~ +60°C (Ambient)

Sealing liquid; Special anti-freeze liquid

Flange and seal diaphragm material; SUS 316 st. st.

Flange rating (For model NKI 35 only);

80mm, 100mm-JIS 30K (RF) equivalent

3"-, 4"-ANSI 300 (RF) equivalent

(7) *Steam jacket (except wafer type and button diaphragm type): (Y 113)*

Operating temperature; Max. 200°C

Operating pressure; Max. 50 kg/cm² G

(Note: Temperature at connecting flange limited by specified allowable fluid temperature.)

(8) *Blind type transmitter: (Y 126)*

(9) *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.)

(10) *Induction lightning arrester: (Y 145)*

(11) *For chlorine gas:*

Sealing liquid; Fluorine oil

Seal diaphragm mat'l; Tantalum

Ambient temperature; -20 ~ +80°C

Operating pressure; -5 kg/cm² G to the flange rated pressure.

Model Number Table

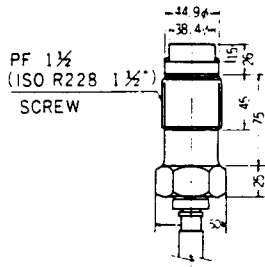
Ex.NKI 32-1201E-5,8A

Basic Model No.		Flange or Screw Mat'l	Element Mat'l	Flange or Screw Rating	Housing	Option	Description
Type	Range						
NKI							Electronic, Process Pressure
	3						Gage Pressure (Remote seal diaphragm type)
	1						0~100 to 0~700 kg/cm ²
	2						0~25 to 0~250 kg/cm ²
	3						0~7 to 0~70 kg/cm ²
	4						0~3.5 to 0~35 kg/cm ²
	5						0~0.7 to 0~7 kg/cm ²
	6						0~0.2 to 0~2 kg/cm ²
	-1						Carbon Steel (SF 45) [Except button diaphragm type]
	-2						Stainless Steel (SUS 316)
			2				Stainless Steel (SUS 316) [Except 3"-wafer type]
			3				} [Except extended diaphragm type, 2"-wafer type and button diaphragm type.]
			4			Monel	
			6			Tantalum	
						Titanium	
				01			Flush Diaphragm Type 80mm-JIS 10K (RF) equiv. flange
				02			" 80mm-JIS 30K (RF) equiv. flange
				03			" 3"-ANSI 150 (RF) equiv. flange
				04			" 3"-ANSI 300 (RF) equiv. flange
				05			Extended Diaphragm Type 100mm-JIS 10K(RF) equiv. flange
				06			" 100mm-JIS 30K(RF) equiv. flange
				07			" 4"-ANSI 150(RF) equiv. flange
				08			" 4"-ANSI 300(RF) equiv. flange
				09			2"-ANSI(RF) equiv. wafer [Flange mat'l SUS 316 st. st. only]
				10			3"-ANSI(RF) equiv. wafer
				11			PF 1½ (ISO R228 1½") male (Button diaphragm type)
				W			Weatherproof Type
				E			Explosion-proof Type
				H			Intrinsic Safety Type
				-5			High Elevation
				-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

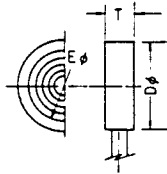
- Note: 1. When specifying semi-standard options (Y□), write in "Y" as follows and put an additional remarks for "Y"-numbers.
 Example: NKI 32Y-1201E-5, 8A and add "Y"-number in writing.
 (Please consult with factory in case of a multiple of "Y"-spec. are required.)
2. As for ratings of flange or mounting screw, refer to tables on page 1 because of their operating limits.

Dimensions

Button Type Diaphragm
(ITEM-11)



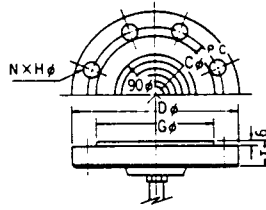
Wafer Type
(ITEM-09, 10)



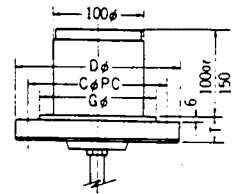
Wafer Type (in mm)

ITEM	Size	D	T	E
9	2" WAFER	92	28	60
10	3" WAFER	130	36	93

Flush Diaphragm Type
(ITEM-01, 02, 03, 04)



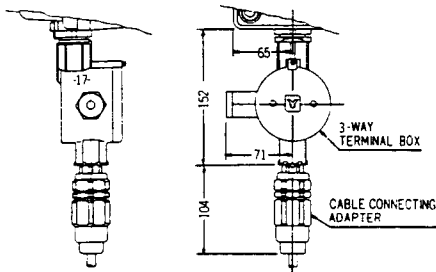
Extended Diaphragm Type
(ITEM-05, 06, 07, 08)



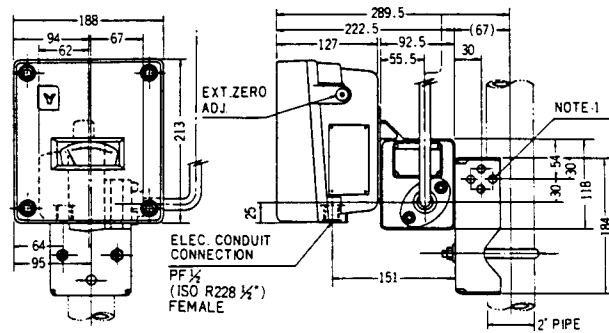
Flange Type (in mm)

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

Explosion-proof Type

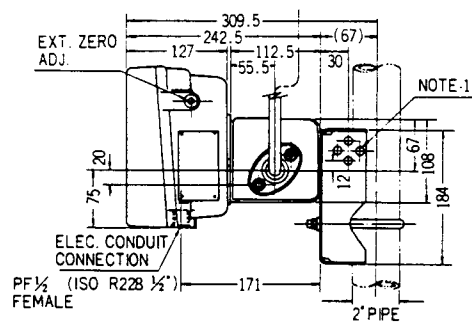
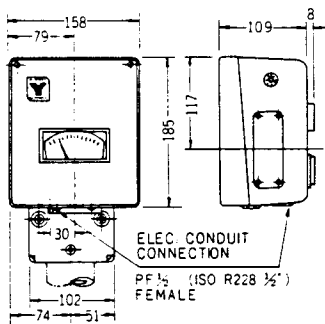


With Expl.-proof Terminal Box and Adapter



Model; NK1 31/32/33/34

Weatherproof and Intrinsic Safety Type



Model; NK1 35/36

- Notes: 1. Universal mounting bracket enables the meter to be mounted to either vertical or horizontal 2 inch pipe.
2. Vertically mount the transmitter. Do not exceed 5 degrees from vertical in either directions.

* Specifications are subject to change without notice.

Ordering Information

When ordering, please specify:

- 1) Model No.
- 2) Pressure range
- 3) Options

- * Reference instruction manual . . . OM2-513-310
- * Reference specification sheet . . . SS2-519-050 (Steam jacket)
SS2-519-060 (Corrosion-proof type)