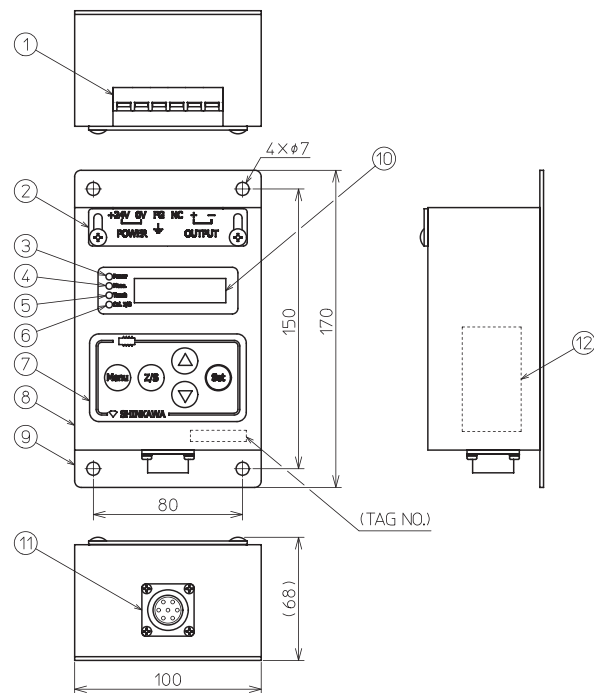


Drawing

Converter

VND-010A : 1.0mm Range, VND-020A : 2.0mm Range

Unit : mm

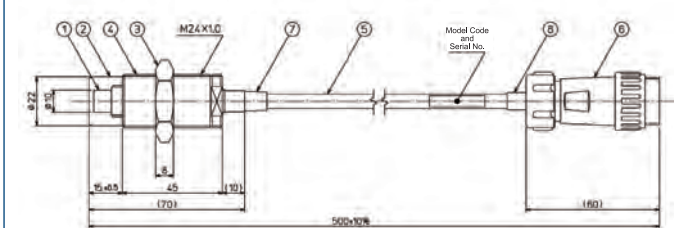


No.	Name	No.	Name
1	Terminal block	7	Button panel
2	Terminal block cover	8	Body
3	Power indicator (Power LED)	9	Bottom plate
4	Measurement range indicator (Meas LED)	10	LED display panel
5	Adjustment model indicator (Tach LED)	11	Connector
6	Calibration model indicator (Cal. Z/S LED)	12	Name plate

Sensor

NS-020□

Unit : mm

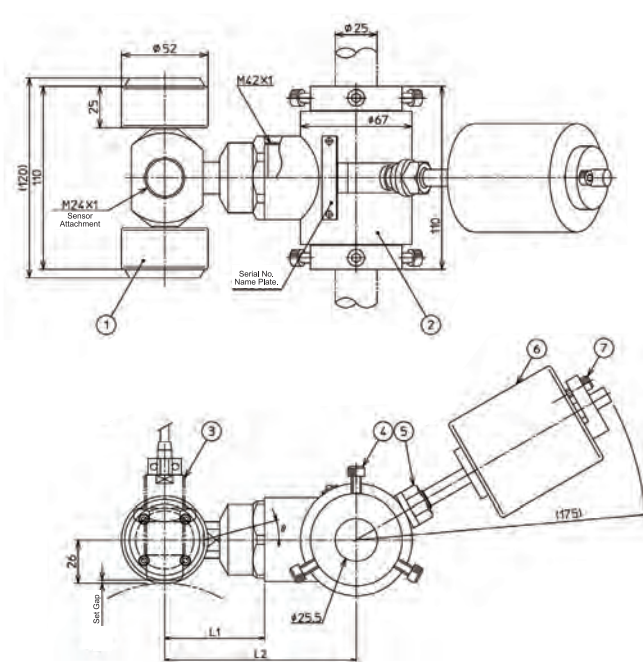


No.	Name	No.	Name
1	Sensor tip	5	Sensor cable
2	Sensor cover	6	Connector
3	Jam nut	7	Cable protection tube
4	Sensor thread	8	Cable protection tube

Touch-roll Attachment

NT-020A

Unit : mm

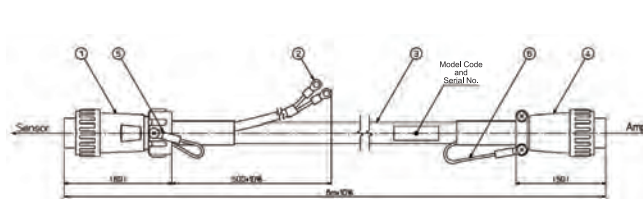


No.	Name	No.	Name
1	Roller	7	Weight fixing bolt
2	Body		
3	Sensor		
4	Hex socket head cap bolt		
5	Weight angle adjustment nut		
6	Weight		

Extension cable

NW-100A : Without thermocouple, NW-100B : With thermocouple

Unit : mm



No.	Name	No.	Name
1	Connector	5	Ground cable
2	Thermocouple cable	6	Ground cable
3	Extension cable		
4	Connector		

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Touch-roll type thickness measurement system

VND Series

High accuracy eddy current,
touch-roll type thickness measurement system

VND Series



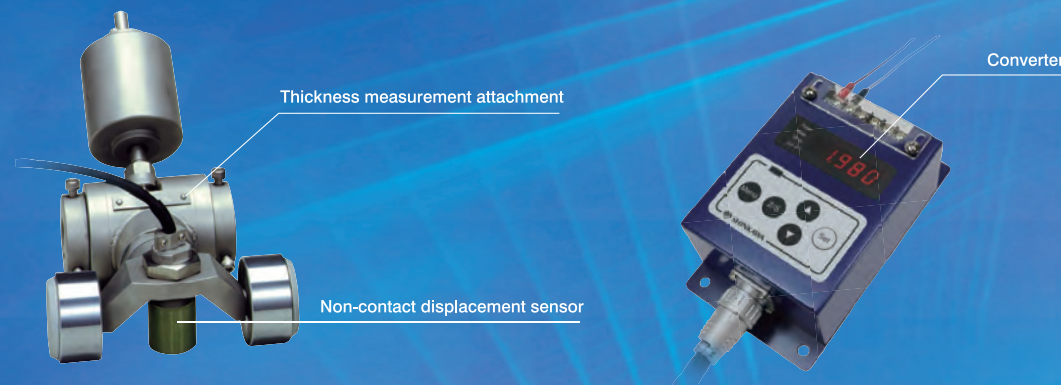
High accuracy digital thickness measurement

Easy adjustment !

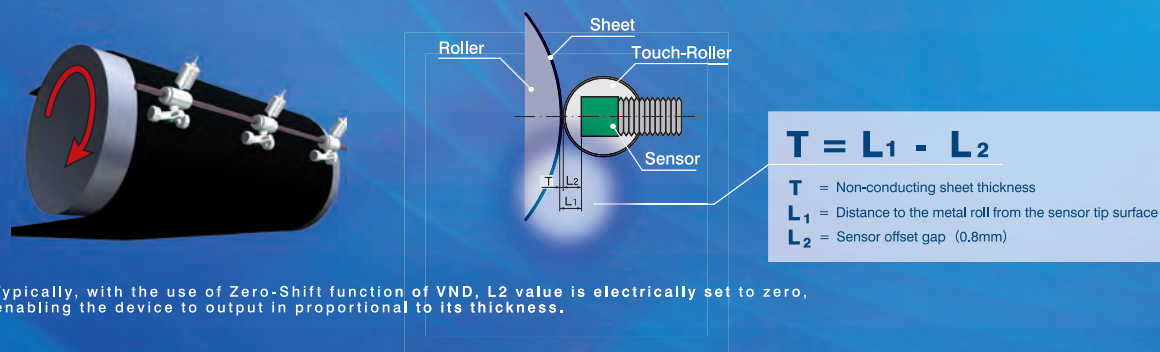
Excellent temperature characteristics !

High stability and low run-out !

The VND converter, in combination with an eddy current type displacement sensor and the touch-roll attachment, provides a system that measures the thickness of the non-conductive sheets with high accuracy. Use of eddy current method makes the system superior to any other measurement systems based on optical, ultrasonic or radiological principles because it can provide highly accurate measurements of thickness of polymer films and rubber sheets continuously without being affected by ambient atmosphere with water, oil or dust etc.

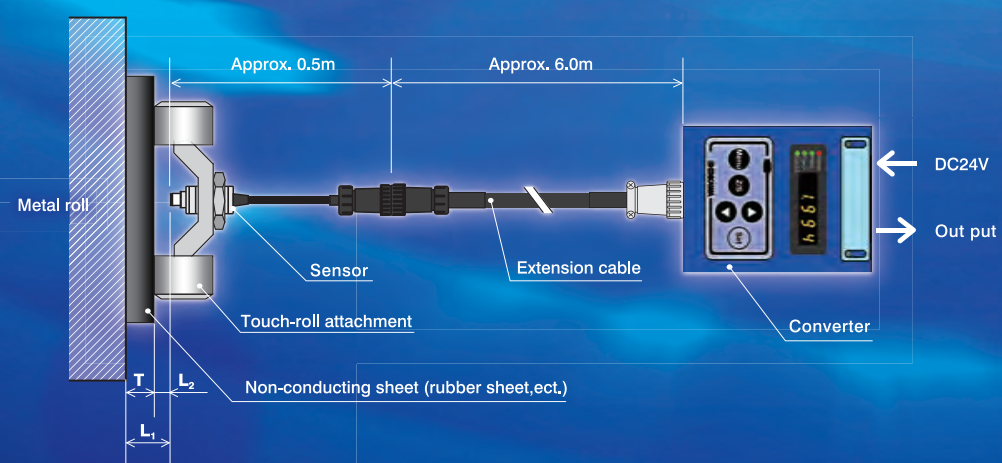


Applications



*Typically, with the use of Zero-Shift function of VND, L₂ value is electrically set to zero, enabling the device to output in proportional to its thickness.

System configuration



system with high stability and reliability

Features

1 Easy adjustment by (SET) button

When in the field, simply provide a mock thickness with a spacer of regulated pitches (10% or 20%), and press (SET) button to adjust characteristics.

2 Digital display on the converter for thickness measurement

No testers are required in the field to measure converter's output voltage.

3 Smooth zero-shift function (Approx. ±20 % of F.S.)

Smooth zero-shift adjustment with the up/down (▲) (▼) keys on the converter. Zero-shift function doesn't affect sensitivity and linearity (accuracy) of the measurement.

4 Highly accurate thickness measurement

The use of 6-point adjustment (20% pitches) or 11-point adjustment (10% pitches) to match with the actual target (rollers) has achieved the linearity of within ±0.5 % of F.S. (with the field adjustments, linearity as much as ±0.2% of F.S. (typical value) is also possible.)

5 High stability

Superior temperature characteristics provide stable measurements. Run-out effects from target (rotor) are kept low just as that of our conventional VN series models.

6 Compact

Downsized by half from the conventional VN converter.

Specifications

Thickness measurement range ■ 0.0mm~1.0mm (Actual gap:0.8mm~1.8mm) ■ 0.0mm~2.0mm (Actual gap:0.8mm~2.8mm)	Frequency response DC~20Hz(-1dB typ.) Output voltage 0~1mmRange : 0~1V,0~5V,0~10V 0~2mmRange : 0~2V,0~10V	Operating temperature range Sensor : -30℃ ~ +130℃ (-25℃ ~ +85℃ for connector portion) Extension cable : -25℃ ~ +85℃ Converter : 0℃ ~ +50℃
Digital display 7 segment LED 5 digits (orange) Thickness display 4 digits (in mm) Encoding 1 digit	Linearity ±0.5% of F.S. (When adjusted for 6points or 11points.)	Operating humidity range 20~95% R.H. (Non-condensing, non-immersion)
Calibration target Chilled steel (flat)	Zero-shift range Approx. ±20% of F.S.	Power supply +24VDC ±10% ripple (p-p) 10% or less