

Model code / Additional spec. code (No entry if additional spec. code is not specified.)

• Converter

VND - A -

Thickness measurement range		Converter output	
010	0.0 mm - 1.0 mm	0	Voltage output (0 V - 1 V)
		1	Voltage output (0 V - 5 V)
		2	Voltage output (0 V - 10 V)

• Extension cable (6 m)

NW - 100

Thermocouple	
A	Without
B	With

• Sensor (0.5 m)

NS -

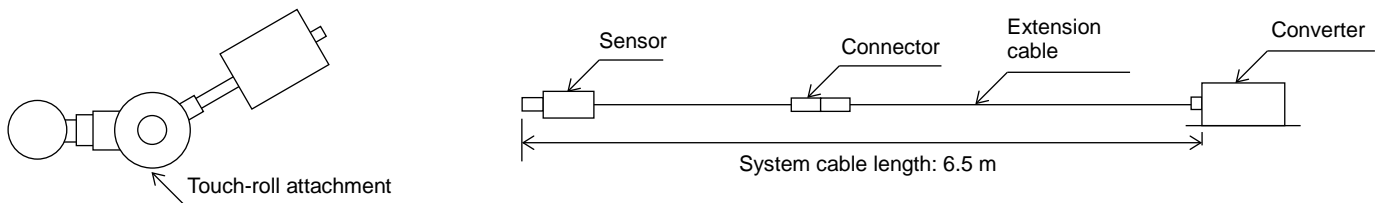
Thickness measurement range		Thermocouple	
020	0.0 mm - 1.0 mm and 0.0 mm - 2.0 mm	A	Without
		B	With

• Touch-roll attachment

NT - A / AG /SGL /NWT

Specification		Angle		Swing limit: Horizontal $\pm 15^\circ$	No weight
020	For NS-020 <input type="text"/>	0	0°		
		1	10°		
		2	20°		
		3	30°		
		4	40°		

Configuration



Specifications		Notice
Converter	VND-010A-□	<p>1. Things to prepare before using this device:</p> <p>Four M6 screws or four M6 bolts are required to install the converter.</p> <p>For the feeler gauge, a 20% of F.S. pitch (for 6-point adjustment) or a 10% of F.S. pitch (for 11-point adjustment) is required to adjust the device.</p> <p>Since the accuracy of the feeler gauge to be used depends on the measurement accuracy, use a gauge which matches the required accuracy.</p> <p>2. Configuration</p> <p>Before connecting the sensor, extension cable, and converter, make sure to match the serial numbers indicated on the converter name plate or inspection test report.</p> <p>Having the wrong combination of serial numbers may result in specifications not being met.</p> <p>When shipping sensor, extension cable or converter alone, we have confirmed the operation in combination with our standard equipment.</p> <p>Before use, please calibrate the converter with the combination of the sensor, extension cable and converter that are actually used. Please refer to the instruction manual for the calibration method of the converter.</p> <p>The temperature characteristics (temperature drift) of the sensor, extension cable or converter when shipped alone are as follows.</p> <p>Sensor: $\pm 2.5\%$ of F.S. (typical), Extension cable: $\pm 2.2\%$ of F.S. (typical), Converter: $\pm 2.2\%$ of F.S. (typical).</p> <p>In case of ordering the extension cable alone, please inform us the sensor range information to be used in combination.</p> <p>3. Megger testing of the signal transmission cables that connect to the instrumentation</p> <p>After you perform a megger test on the signal transmission cable, make sure to discharge the electrical charge before connecting the cable to the converter.</p> <p>Connecting the cable to the converter or the instrumentation while on a charged state may cause a failure</p> <p>4. Sensor installation location</p> <p>Do not use the device outdoors where the sensor can be subject to rain water.</p> <p>Doing so may cause deterioration of the insulation and alter the sensitivity of the sensor.</p>
Extension cable	NW-100□	
Sensor	NS-020□	
Thickness measurement range	0.0 mm - 1.0 mm (actual gap: 0.8 mm - 1.8 mm)	
Sensor offset gap	0.8 mm	
Calibration material	Chilled steel (flat)	
Output sensitivity	1.0 V/mm, 5.0 V/mm, 10.0 V/mm	
Linearity	$\pm 0.5\%$ of F.S. (for 6-point or 11-point adjustment)	
Zero shift range	Approx. $\pm 20\%$ of F.S.	
Resolution	1 μm	
Digital display	5-digit, 7-segment LED (orange) 4-digit thickness display (unit: mm), 1-digit code Accuracy: ± 0.005 mm	
Display LED	Power (red) Meas. (green) Teach (green) Cal. Z/S (green)	
Frequency response	DC - 20 Hz (-1 dB typ.)	
Output impedance	100 Ω	
Operating temperature range	Sensor: -30°C to $+130^{\circ}\text{C}$ (Connector part: -25°C to $+85^{\circ}\text{C}$) Extension cable: -25°C to $+85^{\circ}\text{C}$ Converter: 0°C to $+50^{\circ}\text{C}$	
Temperature characteristics	Sensor: $\pm 2.5\%$ of F.S. Condition gap: 50% of the thickness measurement range, Target: Chilled steel (flat), Temperature: $+25^{\circ}\text{C}$ is the normal temperature. Range is 0°C to $+100^{\circ}\text{C}$ Extension cable: $\pm 1.5\%$ of F.S. Condition gap: 50% of the thickness measurement range, Target: Chilled steel (flat), Temperature: $+25^{\circ}\text{C}$ is the normal temperature. Range is 0°C to $+80^{\circ}\text{C}$ Converter: $\pm 1.5\%$ of F.S. Condition gap: 50% of the thickness measurement range, Target: Chilled steel (flat), Temperature: $+25^{\circ}\text{C}$ is the normal temperature. Range is 0°C to $+50^{\circ}\text{C}$	
Operating humidity range	20% to 95% RH (non-condensing, non-immersing)	
Power supply	$+24$ VDC $\pm 10\%$, Ripple (p-p) 10% or lower	
Current consumption	Max. of 120 mA	
Terminal block	Terminal block screw size: M3	
Converter part insulation resistance	Between the power supply terminal and the FG terminal: 20 M Ω or higher on 500 VDC	
Converter part withstand voltage	Between the power supply terminal and the FG terminal: 60 Hz on 500 VAC within 1 minute	
Mass	Sensor: Approx. 0.3 kg Extension cable: Approx. 1.3 kg Converter: Approx. 1.0 kg	
Other		