

## HANDHELD DIGITAL TACHOMETER

# HT-5100 / 5200

The compact HT-5000 series has a full compliment of features, including maximum hold and preset, and can make both contact-type and optical rpm measurements.

**ONO SOKKI**

# Just What You've Been Waiting

**1** For users needing to record rpm — HT-5100  
An analog output of 0 to 1V (fullscale), with 3 fullscale ranges.

**2** For users needing rotational reference signals — HT-5200  
Pulse output with selectable polarity.

**3** For users needing both contact and non-contact measurement capabilities —  
The HT-5000 series has them both, including non-contact line speed measurement.

**4** For users wanting to mount the tachometer on a tripod for continuous measurement —  
The HT-5000 series makes it possible, with a threaded hole for camera tripods, a measurement switch hold function, and an AC adaptor (optional) for AC line operation.

Just mount the accessory HT-0501 Contact Adaptor to enable use of the accessory KS-200 circumferential ring to make line speed measurements even in cases in which affixing a reflective mark is not possible.

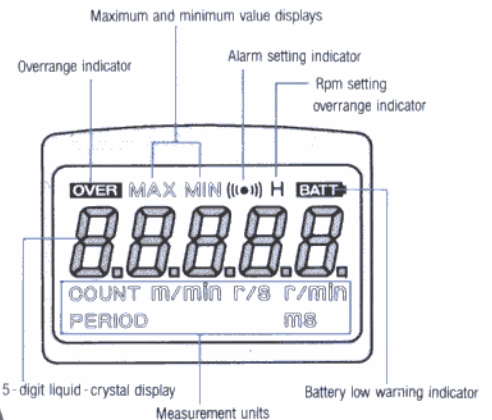
Large, easy-to-read liquid-crystal display features backlighting for easy reading even in dark factory locations.

The measurement switch has a hold function, eliminating the need to press it continuously. Use this in combination with the tripod mounting thread for totally hands-off operation.

Press this switch when the power is off to recall to the display the measured value at the time the power was switched off. When power is switched on, this serves also as a reset switch.

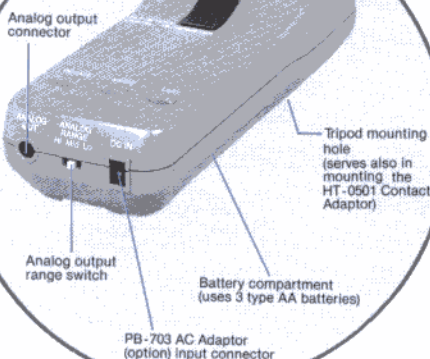
Used to switch between maximum and minimum value measurement modes.

## Large, Easy-to-Read LCD

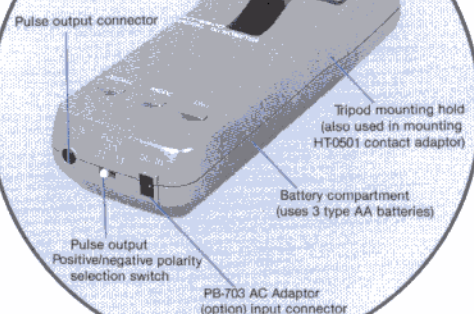


This switch selects one of five measurement units: r/min, r/s, m/min., count, and ms.

### HT-5100



### HT-5200



# for in a Handheld Tachometer

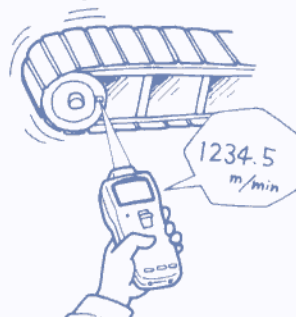
## Detect Trends in Rpm Variation Using a Chart Recorder.

An analog output is provided as standard. Simply connect this to a recorder to make a continuous, clear recording of rpm variations. Other convenient features include a tapped tripod mounting hole, a hold function on the measurement switch, and an optional AC adaptor (PB-703).



\* The analog output cable (AX-501, 2.0m long) is an option.

## Non-Contact Line Speed Measurement



Simply set the diameter of a rotating shaft to make non-contact conveyor belt or other line speed measurements.

## Pulse Output provides Tach Reference to Analyzers and Recorders



Pulse output (standard feature, HT-5200) can be used as a rotational reference signal to FFT spectrum analyzers for rpm scheduled data capture, order tracking analysis, etc....

\* The pulse output cable (AX-1200, 1.5m) is an option.

Here's where the HT-5000 series really shows its stuff!



## More Convenient Features

- Both contact and non-contact measurements with a single unit
- Super wide-range (6 to 99,999 r/min) measurements (up to 20,000 r/min with the contact adaptor mounted)
- Maximum and minimum rpm value hold function
- Accumulated revolutions and period measurements are possible.
- The measurement value at the time at which the power is switched off can be recalled to the display from memory.
- An alarm is sounded when the set rpm value is exceeded.

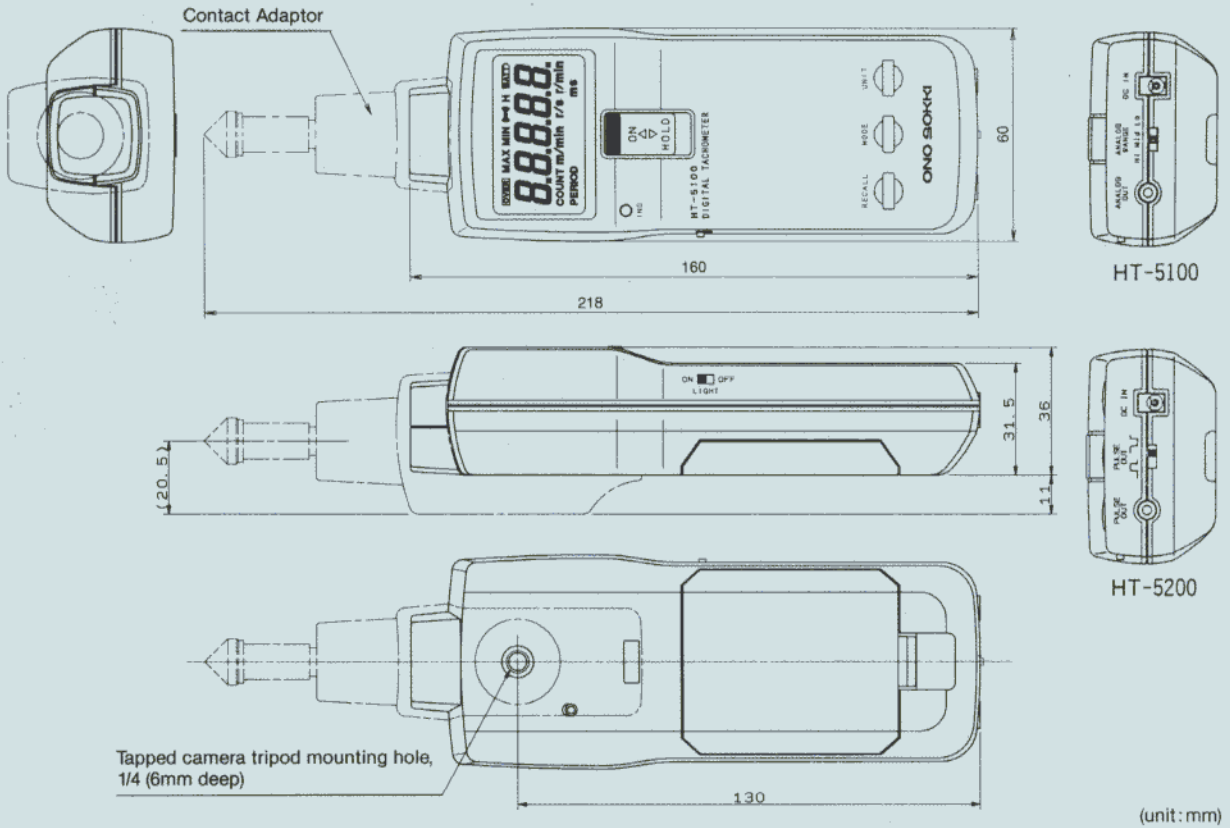
## Specifications

<b>Measurement</b>		<b>Analog Output (HT-5100)</b>	
<b>Detection method</b>	Optical (reflective) and contact (when the HT-0501 Contact Adaptor is mounted)	<b>Output voltage</b>	0 to 1V (fullscale)
<b>Measurement units</b>	r/min, r/s, m/min., count, and ms	<b>Fullscale value setting</b>	3 ranges (switch selectable)
<b>Measurement range</b>	6 to 99999 r/min (6 to 20000 r/min with contact adaptor mounted) 0.10 to 999.99 r/s (0.10 to 400.00 r/s with contact adaptor mounted) 0.6 to 9999.9 m/min. (0.6 to 400.0 m/min. with contact adaptor mounted) 0 to 99999 counts 0.6 to 9999.9 ms (2.5 to 9999.9 ms, with contact adaptor mounted)	<b>Linearity</b>	$\pm 1.0\%$ of fullscale
<b>Reflective detection distance</b>	20 to 300mm	<b>Response time</b>	100ms
<b>Display</b>	5-digit liquid-crystal display with backlighting	<b>Residual</b>	4mV
<b>Measurement display time</b>	1s (10s max. from 6 to 60 r/min)	<b>Zero drift</b>	$\pm 0.05\%$ of fullscale / °C
<b>Measurement accuracy</b>	6 to 11,999 r/min: $\pm 1\%$ /min 12000 to 29999 r/min: $\pm 2\%$ /min 30000 to 49999 r/min: $\pm 4\%$ /min 50000 to 99999 r/min: $\pm 10\%$ /min 0.10 to 199.99 r/s: $\pm 0.02\%$ /s 200.00 to 499.99 r/s: $\pm 0.04\%$ /s 500.00 to 999.99 r/s: $\pm 0.06\%$ /s <Note>	<b>Span drift</b>	$\pm 0.05\%$ of fullscale / °C
	<ul style="list-style-type: none"> <li>• The accuracy of tangential speed measurements depends upon the accuracy of rotational speed measurement.</li> <li>• Above values specified for non-contact measurement using tripod mounting. For contact measurements, error caused by slippage may be added to the above values.</li> </ul>	<b>Load resistance</b>	1k $\Omega$ min.
<b>Maximum/minimum value measurement function</b>	In the maximum/minimum value measurement mode, the maximum and minimum values occurring after start or reset are displayed.	<b>Setting accuracy</b>	$\pm 0.5\%$ of fullscale
<b>Memory recall function</b>	The last measured value, maximum value, and minimum value are held in memory for more than 10 minutes.	<b>Pulse Output (HT-5200)</b>	
<b>Overrange indication</b>	When the measured value exceeds 99999 r/min, 999.99 r/s, or 9999.9 m/min., the display is fixed, and "OVER" appears in the upper left of the display. (When using the contact adaptor, "OVER" is displayed at 20000 r/min, 400.00 r/s, or 2000.0 m/min.)	<b>Output voltage</b>	HI +5 $\pm 0.5$ V (load resistance of 100k $\Omega$ or less) LO +0.5 V max. (sink current of 2 mA)
<b>Alarm function</b>	When the set rpm value is exceeded, an alarm is sounded and "H" is displayed on the LCD. Setting range: 100 to 99900 r/min (usable only with r/min or r/s measurements)	<b>Output current</b>	Maximum sink current: 7mA at 0.7 V
<b>Circumferential speed (line speed)</b>	By inputting the diameter of a rotating shaft, non-contact line speed measurement is possible. Setting range: 1 to 999mm	<b>Output impedance</b>	Approximately 50 $\Omega$
		<b>General Specifications</b>	
		<b>Power requirements</b>	3 type AA batteries or 100/120/220/240VAC (using the optional PB-703 AC Adaptor)
		<b>Battery life</b>	Approx. 40 hours continuous operation (when not using backlighting) Approx. 10 hours continuous operation (when using backlighting)
		<b>Battery low alarm indicator</b>	When the battery voltage drops below approximately 3.3V, "BATT" appears in the display as a warning.
		<b>Operating temperature range</b>	0 to +40°C
		<b>Storage temperature range</b>	-10 to +55°C
		<b>Dimensions and weight</b>	160(W) x 36(H) x 60(D)mm, approx. 200g 218(W) x 47(H) x 60(D)mm, approx. 260g (with contact adaptor mounted)
		<b>Accessories</b>	HT-0501 Contact Adaptor KS-300 Rpm Measurement Contact Tip KS-200 Circumferential Ring HT-011 Reflective Marks (1 sheet) Miniature screwdriver (for rotary switch setting) Type AA batteries (3) Carrying case
		<b>Options</b>	PB-703 AC Adaptor AX-501 Analog Output Cable (2.0m long) AX-1200 Pulse Output Cable (1.5m long)

⚠ Please refer to the instruction manual when you operate the HT-5100/5200.

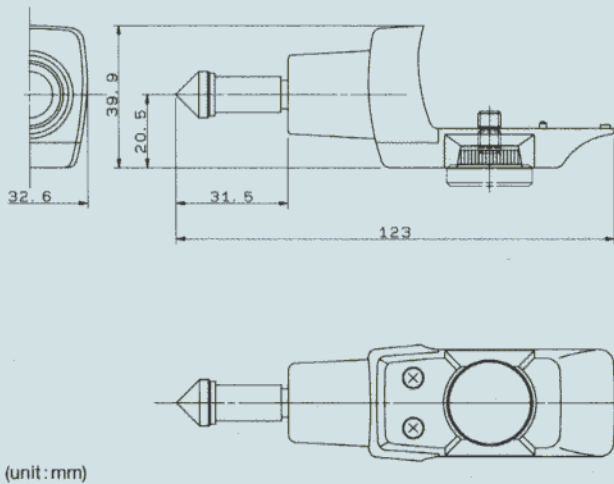
# Outer Dimensions

## HT-5100 / HT-5200



(unit: mm)

## HT-0501 (Contact Adaptor for the HT-5000)



(unit: mm)

## Options (Sold Separately)

**PB-703 AC Adaptor** ..... For 100V  
 For 120V  
 For 220V  
 For 240V

**AX-501 Analog Output Cable** (2.0m long)

**AX-1200 Pulse Output Cable** (1.5m long)

**KS-100 Circumferential Ring** (for mm/s)

**HT-011 Reflective Marks** (10 sheets)

**HT-0521 Stand Fixture**  
**HT-0522 Magnet Stand** } Used as a Pair

\* Outer appearance and specifications are subject to change without prior notice.

HOME PAGE: <http://www.onosokki.co.jp/English/english.htm>

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