

Gasoline & diesel engines, EV & HEV motors  
**Handheld Digital Tachometer**

# HT-6200

**External Sensor Input Type**

**Old Model**  
(Reference only)



**ONOSOKKI**



Handheld Digital Tachometer

# HT-6200

Advanced model of the HT-6100

Not just measuring gasoline/diesel engine rotation but motor rotation of EV/HEV !

All in one model for measuring gasoline/diesel engines and EV/HEV motors!

Three types of output (analog, pulse and monitor) for recording and for tracking analysis of rotation.

Features

- 1

Can be used with various sensors

Various types of rotation sensors can be connected. Rotation measurement of gasoline engines, diesel engines and motors can be performed with one tachometer.
- 2

Three outputs provided as standard

Analog output : For recording rotation speed  
Pulse output : For synchronous signal with rotation  
Monitor output : For checking detected signals.
- 3

Built-in peak-hold function

Max. and min. values can be displayed during measurement.
- 4

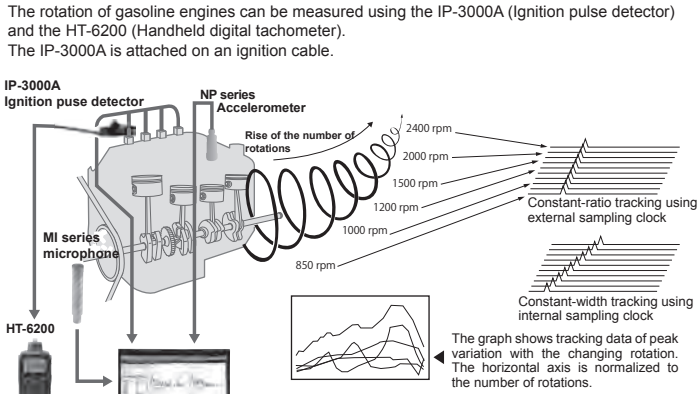
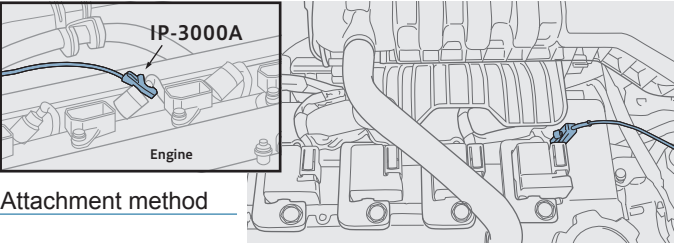
Built-in memory function

Up to 20 data can be stored.

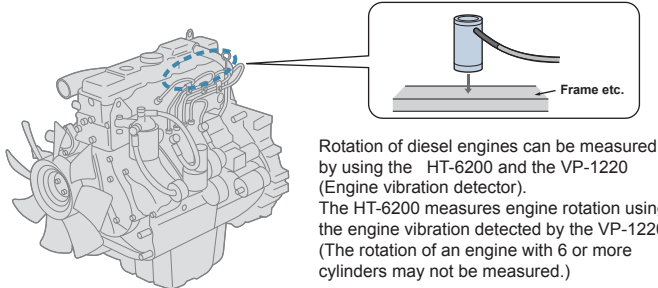


Applications

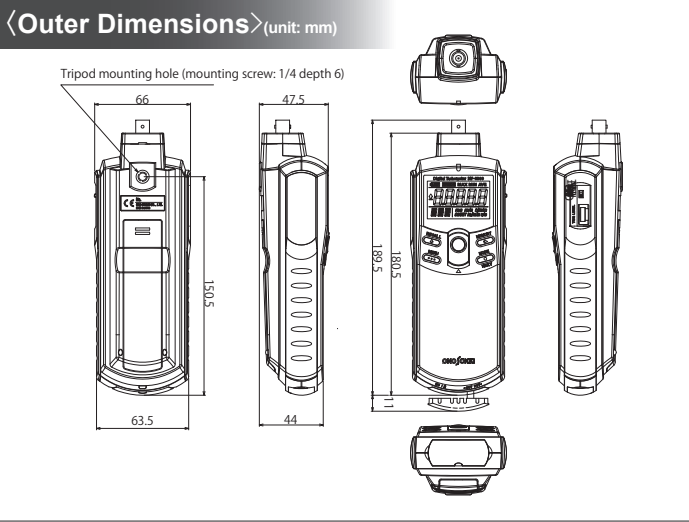
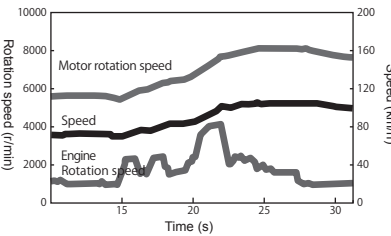
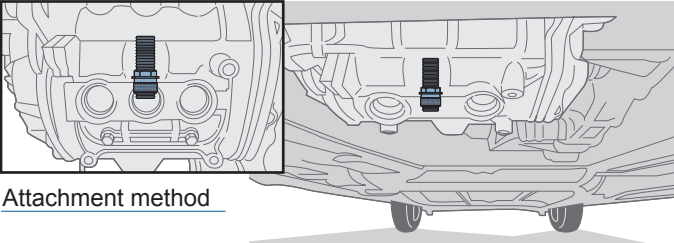
Measuring rotation of gasoline engines



Measuring rotation of diesel engines



Measuring motor rotation of EV/HEV



Specifications

|                                       |  |   |   |   |
|---------------------------------------|--|---|---|---|
| Object to be measured                 |  | Engines, motors and rotating objects in general   |   |   |
| Display                               |  | 5-digit LCD with backlight (character height: 10.2 mm)  |   |   |
| Calculation method                    |  | Periodic operation method   |   |   |
| Measurement time                      |  | 1 s+1 period  |   |   |
| Measurement accuracy                  |  | Displayed value x (±0.02 %)<br>(Not including a quantization error)<br>The measurement accuracy of the circumferential speed depends on the accuracy of rotation speed (r/min). |   |   |
| Setup range of number of pulses (P/R) |  | 0.50 to 200.00(engine rotation measurement)<br>0.50 to 999.99(other than engine rotation measurement)<br>(Can be set at intervals of 0.01)                                      |   |   |
| Measurement function                  | Peak-hold function                         | Maximum value (MAX), Minimum value (MIN)  |   |   |
|                                       | Memory function                            | Up to 20 data   |   |   |
|                                       | Over-range function                        | The over-range warning (ERROR mark) is displayed when the measured value exceeds the display range.   |   |   |
|                                       | Rotation upper limit warning function      | The upper limit warning ( ↑ mark) is displayed when the rotation speed exceeds the preset upper limit value.  |   |   |
|                                       | Circumferential speed calculation function | Calculates the circumferential speed from the preset diameter value (mm) and the measured rotation speed.   |   |   |
|                                       | Accumulation function                      | Counts accumulated pulses of input signal   |   |   |
|                                       | Period measurement function                | Measures the input pulse period<br>(When 1 second or less: average value of input pulse)  |   |   |
|                                       | Trigger level adjustment function          | Trigger level can be adjusted using a rotary dial at the right-hand side of the main unit.  |   |   |
|                                       | Connector                                  | φ2.5 sub-mini jack  |   |   |
|                                       | Output section                             | Analog output   | Output to the display value of rotation speed                   |   |
| Output voltage                        |  | 0 to 1 V/0 to F.S. (F.S. can be specified.)   |   |   |
| General specifications                | Output section                             | Analog output   | Conversion method   | 10-bit D/A conversion method  |
|                                       |  |   | Linearity   | ±1 %／F.S.   |
|                                       |  |   | Output update time  | 50ms + the time required for 1 period or less   |
|                                       |  |   | Temperature stability   | ± 0.05 % / F.S./ °C (ZERO & SPAN)   |
|                                       |  |   | Setting error   | ±0.5 %／F.S.   |
|                                       |  |   | Load resistance   | 100 kΩ or more  |
|                                       | Monitor output                             |   | Output content  | Detected signal of a sensor<br>(available by switching from analog output.)                                       |
|                                       |  |   | Load resistance   | 100 kΩ or more  |
|                                       | Pulse output                               |   | Output voltage  | High level: +4.5 V or more<br>Low level : +0.5 V or less  |
|                                       |  |   | Output logic  | Positive logic pulse  |
|                                       |  |   | Load resistance   | 100 kΩ or more  |
|                                       |  |   | Power supply  | Type AAA battery (x 4) or exclusive AC adapter (PB-7090 sold separately)  |
|                                       |  |   | Continuous operating time                                       | 16 hours or more (backlight OFF)<br>8 hours or more (backlight ON)<br>*When alkaline batteries are used at 20 °C. |
|                                       |  |   | Battery LOW display   | Lights up at about 4.5 V("LOW" will be displayed.)  |
|                                       |  | Operating temperature range   | 0 to +40 °C   |   |
|                                       |  | Storage temperature range   | —10 to +50 °C   |   |
|                                       |  | Outer dimensions  | 47.5(W)×189.5(L)× 66(D) mm                                      |   |
|                                       |  | Weight  | Approx. 280 g (including batteries)                             |   |
|                                       |  | Accessories   | Type AAA battery x 4, carrying case x 1, Instruction manual x 1 |   |

|                       |   |   |   |  |
|-----------------------|---|---|---|--|
| Applicable detector   | Gasoline engine   | Diesel engine   | Motor (EV, HEV)                               | Rotating object in general                             |
|                       | • Ignition pulse detector: IP-296/292/3100/3000A<br>• Motor/gasoline engine RPM detector: OM-1200<br>• Engine vibration detector: VP-1220 | • Ignition pulse detector: IP-296/292/3100/3000A<br>• Motor/gasoline engine RPM detector: OM-1200<br>• Engine vibration detector: VP-1220 | • Motor/gasoline engine RPM detector: OM-1200 | • Electromagnetic rotation detector MP-900/9000 series |
| Object to be measured | • Ignition coil, primary/secondary ignition cables<br>• ECU rotation pulse (5V)<br>• Cylinder-head of an engine (When using the VP-1220)  | • ECU rotation pulse (5V)<br>• Cylinder-head of an engine (When using the VP-1220)  | • Motor                                       | • Rotation detection gear                              |

|   |   |  |   |  |  |
|---|---|--|---|--|--|
| Rotation measurement of gasoline/diesel engines |   |  | Rotation measurement other than engines   |  |  |
| Measurement unit                                | r/min (rotation speed)  |  | r/min, r/s (rotation speed), m/min (circumferential speed), ms (period), COUNT (accumulated count)  |  |  |
| Input frequency range                           | 1 to 1666.67 Hz   |  | 3.33 to 1666.67 Hz  |  |  |
| Maximum measurement value                       | 20,000 r/min<br>The maximum rotation speed is 20,000 r/min regardless of the number of pulses per one rotation (P/R). |  | 99999 r/min (P/R=1), 999.99 r/s (P/R=1)<br>9999.9 m/min (diameter =100 mm), 300 (ms), 99999 (COUNT)<br>The maximum value varies depending on the number of pulses per one rotation. |  |  |

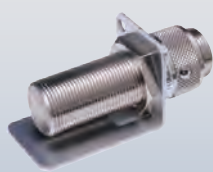
※ The measurement range may be changed depending on measurement objects.

※ The measurement range may be changed depending on the sensor installation position or type of motor when the motor rotation is measured using the OM-1200.

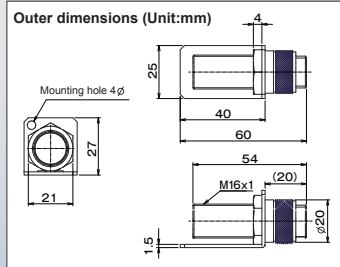
※ The measurement may not be performed normally depending on type of a motor, type of an engine or other reason. Please contact your nearest distributor for more details.

## Options

For measuring EV/HEV  
motor rotation  
OM-1200 (detector)  
OM-0102 (mounting fixture)



Detector with a mounting fixture



Motor/gasoline engine  
RPM detector  
OM-1200



Electromagnetic  
rotation detector  
MP series



Ignition pulse detector  
(Primary side)  
IP-292



Ignition pulse detector  
(Secondary side)  
IP-296



Ignition pulse detector  
IP-3000A



Ignition pulse detector  
IP-3100



Engine vibration  
detector  
VP-1220



AC adapter  
PB-7090



## Main unit

HT-6200 Handheld Digital Tachometer

## Sensors (sold separately)

- VP-1220 Engine vibration detector
- IP-292 Ignition pulse detector
- IP-296 Ignition pulse detector
- IP-3000A Ignition pulse detector
- IP-3100 Ignition pulse detector
- OM-1200 Motor/gasoline engine RPM detector
- MP series Electromagnetic rotation detector

## Accessories (sold separately)

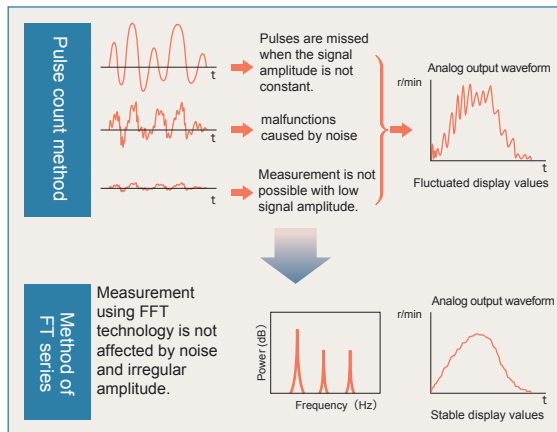
- AX-501 Signal output cable  
(for analog and pulse output)  
2.5φ sub-mini plug to CO2 (BNC), 2m
- MX series Cable for electromagnetic rotation detector  
(for OM-1200, MP series)  
MX-005 5m  
MX-010 10m
- OM-0102 Mounting fixture for OM-1200  
(with 3 of adhesive sheet)
- PB-7090 AC adapter  
Input: 100 to 240V AC  
Output: 5.9V DC/3.5A  
(with AC power cable)

## For stable measurement High precision type the FT-7200 Advanced Handheld Tachometer

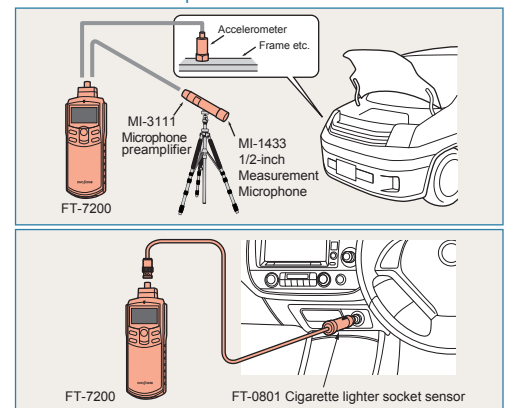


FT-7200

The FT-7200 is a handheld type tachometer which measures the rotation speed by performing frequency analysis using FFT calculation. This tachometer is useful for measurement of sensor signal with noise or small amplitude.



## Measurement examples



Cigarette lighter socket sensor  
FT-0801

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