

## Easy Counter T3: Technical informations V1.1

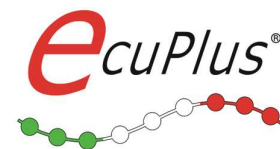


EcuPlus® Easy **Counter T3**, is a highly evolved tachometer. It allows to measure the engine revolutions, the temperature, the elapsed time, the maximum values of the measured during the test and send them to the smartphone.

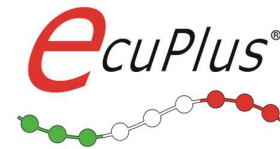
Order code: **U.TC-IEC**

### Data sheet:

|                  | Details   |
|------------------|---|
| <b>Features:</b> | <ul style="list-style-type: none"> <li>Measure the RPM through the spark plug cable</li> <li>Temperature measurement</li> <li>Run time measurement</li> <li>Stores/recall data acquired during the test</li> <li>Configuration menu</li> <li>Integrated and rechargeable LiPo battery through dedicated chip with constant current algorithm and pre-conditioning</li> <li>Battery rechargeable with charge status indication</li> <li>Engine Type selectable (see Engine Type in details)</li> <li>Shutdown selectable time 5/20/60 Sec</li> <li>RPM rounding selectable 10/50/100 RPM</li> <li>Selectable temperature measurement units °C/°F</li> <li>Internal sensor temperature for electronic circuit and battery monitoring</li> <li>Low/Very Low battery warning alarm</li> <li>High temperature battery warning alarm</li> <li>Smartphone connection with specific Android App (available on the web in the download section)</li> <li>Firmware upgradeable</li> </ul> |



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|----------------------------------|---|
| <b>Display:</b>                  | <p>OLED Screen Type 0.96 inch</p> <p>Display multicolor Yellow &amp; Blue high efficiency</p> <p>Resolution: 128 x 64 dot matrix panel with On-Chip Oscillator</p> <p>Field of View: greater than 160°</p> <p>Brightness with Polarizer = 70 - 90 cd/m</p> <p>Military-grade process standards, long-term work steadily</p>   |
| <b>Logical unit:</b>             | <p>Microcontroller RISC 8 Bit High-performance low power, based with Ceramic Crystal Unit @ 16MHz to maintain high accuracy</p> <p>FTDI integrated chip for serial communication with smartphone or personal computer</p> <p>Integrated bootloader function for firmware update</p> <p>Self-diagnosis function for memory control, display, data transmission, general operation and time base</p>  |
| <b>USB port:</b>                 | <p>Micro USB 2.0 female B type OTG supports</p> <p>Thermoplastic material: UL94V-0</p> <p>Metal screens for EMI/ESD protection</p> <p>Mechanical operation &gt; 10000 mating cycles</p>   |
| <b>Engine rpm measurement:</b>   | <p>Measurement range: 0... 30000 RPM</p> <p>Resolution: 10/50/100 RPM selectable</p> <p>Accuracy: <math>\pm 10</math> RPM</p> <p>Sampling frequency: at each spark plug pulse</p> <p>Data update display time: 0.5 Sec</p> <p>Peak &amp; Hold function maximum rpm reached during the active session and the previous one</p> <p>Peak &amp; Views functionality maximum rpm reached between two consecutive views of the active session and resettable by the user</p>  |
| <b>Temperature measurement:</b>  | <p>Compatible probes: Type K thermocouples (+ Chromel - Alumel) IEC 584 Standard</p> <p>Measurement range: between 0°C &lt;-&gt; 1000°C (32 °F &lt;-&gt; 1832°F)</p> <p>Probe connector type: Binder Snap serie 719 3 poles,</p> <p>Contact material: CuZn (Brass) Contact plating Au (Gold)</p> <p>Mechanical operation &gt; 500 mating cycles</p> <p>Open or no thermocouple detection</p> <p>Sampling rate: 250msec</p> <p>Resolution: 0.25 °C (32.45 °F)</p> <p>Accuracy of the acquisition system:</p> <p>From 0 to 749 °C = <math>\pm 2</math> °C (32 to 1380.2 °F = <math>\pm 35.6</math> °F)</p> <p>From 750 °C to 1000 °C = <math>\pm 4.75</math> °C (1382 °F to 1832 °F = <math>\pm 40.55</math> °F)</p> <p>Cold junction compensation error: <math>\pm 3</math> °C (<math>\pm 37.4</math> °F) for ambient temperatures between 0 and + 50 °C (32 and 122 °F)</p> |
| <b>Elapsed time measurement:</b> | <p>Measurement of the elapsed time of the active test session</p> <p>Memorization of the elapsed time of the previous session (Max 9h 59m 59s)</p> <p>Memorization of the total running time of the engine, non-resettable (Max 32500 hours)</p>  |
| <b>Supported Engine Type:</b>    | 4 stroke 2 cylinder 1 spark per revolution Range: 0-30000 Rpm   |
|                                  | 2 stroke 1 cylinder   |
|                                  | 4 stroke 1 cylinder 1 spark 2 revolution Range: 0-30000 Rpm   |
|                                  | 4 stroke 4 cylinder 2 spark per revolution Range: 0-15000 Rpm   |
|                                  | 2 stroke 2 cylinder   |



|                                      |  |
|--------------------------------------|--|
|                                      | 4 stroke 6 cylinder 3 spark per revolution Range: 0-9500 Rpm<br>2 stroke 3 cylinder<br>4 stroke 3 cylinder 3 spark 2 revolution Range: 0-19000 Rpm<br>4 stroke 8 cylinder 4 spark per revolution Range: 0-7500 Rpm<br>4 stroke 5 cylinder 5 spark 2 revolution Range: 0-12000 Rpm<br>4 stroke 12 cylinder 6 spark per revolution Range: 0-5000 Rpm<br>2 stroke 6 cylinder<br>4 stroke 16 cylinder 8 spark per revolution Range: 0-4000 Rpm                     |
| <b>Supply:</b>                       | Internal battery, single 3.7 Volt 300 mA Lithium Polymer cell<br>Autonomy: 13h of continuous use<br>Complete charging time starting from very low battery through micro Usb port: 1.5 Hours<br>Expected Cycle Life @ 23±5°C (73.5±41°F) = 700 cycles ≥ 80%   |
| <b>Containment Box:</b>              | Material: Lightweight thermoplastic polymer (ABS) UL94 V-0 flammability rating retardant plastic, rigid resistant to shocks and vibrations, device also suitable for installation on the vehicle being tested<br>Black color with scratch-resistant satin finish. Protected from splashing water (IP53)<br>Screen printed panel with membrane buttons and protective screen for the display<br>Tactile Switch with durability 300000 Operations.               |
| <b>Rpm signal measuring antenna:</b> | Material: The ACW wire has excellent fluid resistance and is designed to resist attack from oil, brake fluid, antifreeze and fuels used within the automotive trade. High operating temperature up to 150°C (302°F)<br>Flame Retardant, Low Smoke Density, Self-extinguishing and excellent mechanical strength<br>Length: 1200mm (47.24 inch)<br>Termination: Micro-Alligator "Pee-Wee" spring clip to prevent damage to the AT antenna or OPT code: A.CL-AT1 |
| <b>Environmental conditions:</b>     | Operating temperature: -20 °C and 70 °C ( -4 °F to 166 °F ) , Ambient operating humidity 80%RH max.  |
| <b>Dimensions and weight:</b>        | Dimension LxWxH : 60 x 35 x 15mm (2.36 X 1.37 X 0.60 inch)<br>Weight: 43gr. (1.51 oz)  |