

## T-3T Temperature logger

The autarky working temperature-data logger T-3Tplus makes it possible to monitor the temperature-time processes. Especially the compact, robust and totally waterproof housing opens the system for many different applications.



Some features:

- easy handling
- internal energy source
- no contact, inductive data transfer
- The measured values are stored inside of an EPROM and are secured against any manipulation.

Applications:

### Transport

- Food
- Fruit, vegetables & animals
- Sensitive technical goods

### Storage

- Food
- Air conditioning
- Cooling

### Sleep Mode

Data logger is not used: low energy consumption, high lifetime of battery/logger, no temperature measuring

### Active Mode

Temperature measuring and storing: programmable start-time, programmable measuring-interval

Stop Full : Saving of all measured values (up to the full memory)

Roll Over : The first saved values will be overwritten when the memory is full ( first in first out ).

The calibration values are saved in one protected area of memory. Standard adjustment functions (via evaluation-software) with 1-point or linear 2-points calibration can be used for easy adjustment of every logger after delivery to the customer.

The T-3Tplus has also an additional user-memory space for customer relevant information / remarks.

Technical data :

Basics:      Geometry: cylindrical, diameter: 30mm, height: 12mm  
                  Weight :    24g  
                  House-material: stainless-steel / epoxy  
                  Memory size: ca.1800 measuring values  
                  User-Memory: minimum 64 characters  
                  Lifetime: typical 3 years (depends on used function mode, interval und temperature range.)

Temperature: Temperature range (work): -30...+85°C  
                  Temperature range (no work): -35...+90°C, best by -25...+25°C (optimal for battery long-life)  
                  Temperature resolution:  $\pm 0,5K$   
                  Temperature accuracy: (without add. calibration)       $\pm 1K$  (0...+70°C)  
     $\pm 2K$  (-10...+85°C)  
     $\pm 4K$  (-30...+85°C)

T90: ca.9min in air, ca.2min in liquid

Measuring-start: Start date and Start time are programmable

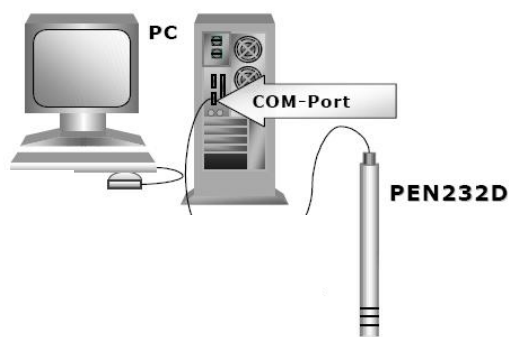
Measuring interval: 1...255min, programmable

Time base: counter with frequency tolerance  $\pm 50\text{ppm}$  ( $25^\circ\text{C}$ ) and temperature coefficient  $-0,04\text{ppm}/^\circ\text{C}$  (max.)

A USB-pen in connection with a PC or handheld-PC or is used for the programming and evaluation of the T-3T. The pen can be used for programming and read out of the T-3T.

This robust and compact unit can be used in every typical industrial area. A specific power management makes it possible to use the pen also on handheld-PC (for example PSION).

#### Connection to the PC:



For the programming and read out procedure the pen should be held near to the center of the T-3T. A special holder making the positioning easier can be optional ordered.

#### Technical data :

Geometry: pen with cable and connector  
metal housing, length ca. 170mm, diameter ca.12mm

Interface: USB-connector

Electrical power source: via USB-interface of the used PC

Interface: Transfer frequency: 13,56MHz  
Programming time: ca.4sec  
Read out time typ. 3sec (depends on memory size and PC generation)

Programming-/read out-distance: 0...3mm (centric)

Windows-based software for evaluation and programming is included. Through this software the T-3T can be programmed ( interval, customer info, ... )

