

# BlueWave TP



**Bluetooth** pressure and temperature data logger with range  $-40^{\circ}\text{C} \div +140^{\circ}\text{C}$  with filter for the pressure sensor and rigid probe of 15 mm for temperature. Receive data directly on your laptop (Bluetooth 5.0 required) or on your smartphone (\*) without additional accessories. Very easy to use: select the devices you need, start the acquisition, see the data in real time. You will no longer need cables and receivers or cumbersome interfaces and thanks to TS Manager 3 you can immediately analyze data and generate advanced reports.

The **battery** is **user replaceable** and is supplied with an **Accredia traceable calibration certificate**.

\* mobile available in Q4 2025.



## Main features

- No receiver or accessories needed
- Live data transmission
- With different lengths rigid probe for penetration
- Double channel for both parameters monitoring
- Completely food grade and waterproof
- **All software calculate lethality value (F0, PU, A0 ecc.)**
- Low battery consumption for an extended battery life (if used below  $-20^{\circ}\text{C}$  the battery life could be significantly reduced)
- User replaceable battery (**software shows battery status**)
- Extremely easy to use
- Possibility of application to any type of packaging
- Accredia (NIST equivalent) traceable calibration certificate included
- Available **extended calibration from  $-40^{\circ}\text{C}$**  (order extra calibration points; in case of wide calibration range the accuracy might be worse. Request the possible calibration ranges in advance)

## Plus

- Real-time transmission
- Extreme ease of use
- Extremely high accuracy and precision: with an accuracy of  $\pm 10$  mbar these devices can be employed in any application involving pharmaceuticals, food&beverages, validation, laboratory and medical field
- Printed reports compliant with health regulations, HACCP and ISO

## The system

The system is made up by:

- BlueWave TP pressure and temperature data logger
- TS Manager3 software (compatible with the FDA 21 CFR Part 11, Annex 11, GAMP 5 regulations)

## Accessories

- TS Manager 3
- BlueWave battery kit

## Applications



Validation



Sterilisation



Pharmaceutical



Medical



Healthcare



Cosmetics



Laboratories



Food & Beverages

## Technical specifications

Dimensions	90 h X 23 Ø (mm) (filter 5 h X 9 Ø (mm))
Probe dimensions	Probe base dimensions 4 h X 8 Ø (mm) - Probe 15 l X 3 Ø (mm)
Weight	91 g
Materials	Stainless steel AISI316L, PEEK, FKM (o-ring)
Temperature range	-40°C ÷ +140°C
Standard calibration points (temperature)	25/50/75/100/121/140°C
Extra calibration points (temperature)	Within the range -40 °C ÷ +140 °C
Temperature resolution	0,01 °C
Temperature accuracy	± 0,1 °C (within the calibration range)
Pressure range	0 bar ÷ 5 bar absolute
Standard calibration points (pressure)	50/1k/2k/3k/4k absolute mbar
Extra calibration points (pressure)	Within the range 50 mbar ÷ 5 bar absolute
Pressure resolution	1 mbar
Pressure accuracy	± 10 mbar typical; ± 15 mbar maximum
Memory (n. of acquisitions)	65.500
Acquisition step	From 1 every second up
Protection degree	IP68
Battery life	+4.000.000 acquisitions at 1 second step continuously (calculated time @25°C. Battery life may be shorter if used in low temperatures)
Communication	Bluetooth BLE 5.0
Frequency	2.4 GHz
It requires	Windows Laptop Bluetooth 5.0
Real time mode	High Performance (secure reception, greater use of the battery), Normal (possibility of losing some data in real time, less use of the battery), standby (waiting for mission start)
Software&Mobile App	TS Manager 3