# TEMPSEN®

## TEMPOD® Bluetooth®

# Temperature Data Loggers



-20°          -50°          -100°          -200°
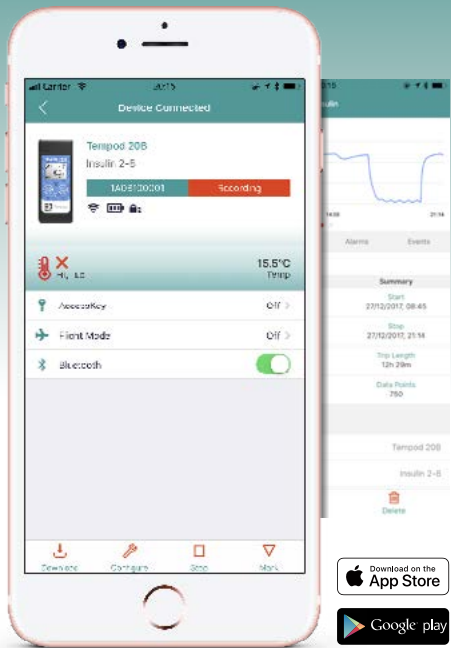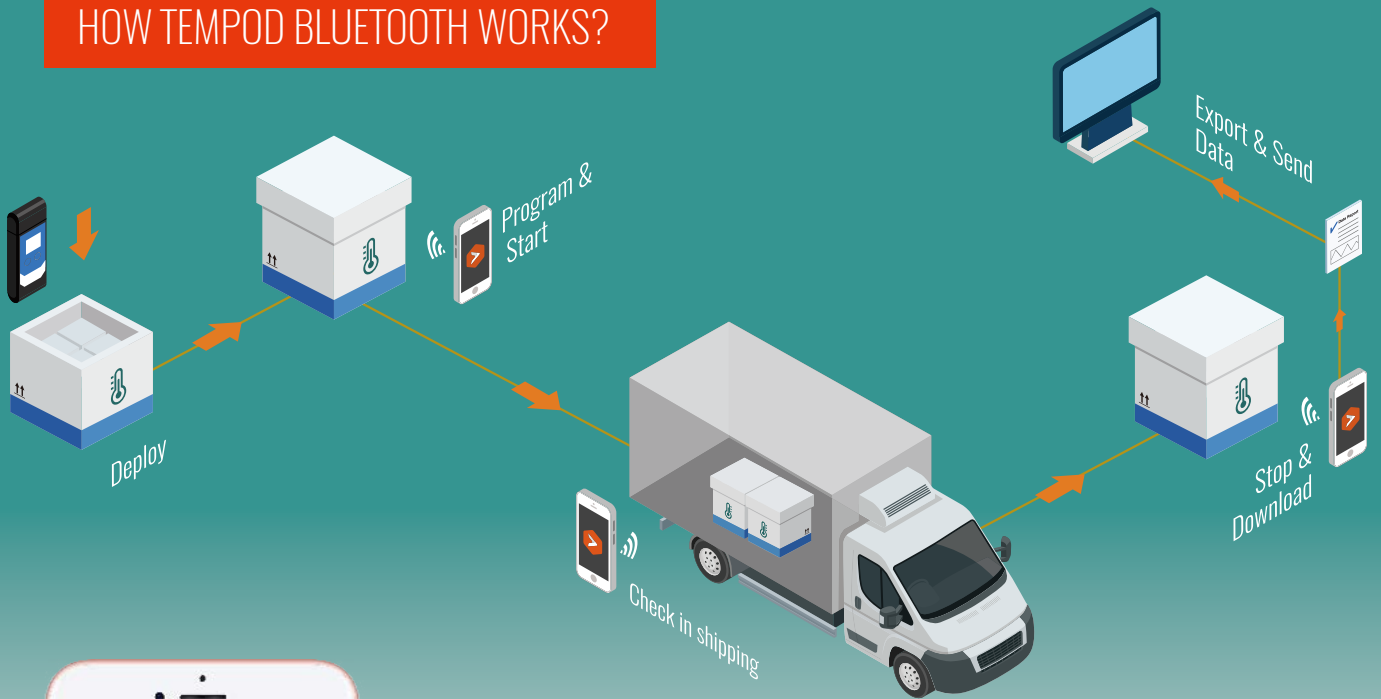
# TempSen

Increasing temperature excursion accidents occurred during logistics caused huge losses to companies from life science, food and chemical industries, deploying temperature monitoring devices within shipment already becomes mandatory for a qualified temperature controlled supply chain, but traditional temperature monitoring devices require programming , downloading data logger using controlled computers which are sometimes not at the same locations of departure or arrival depots, so shipping timeliness are frequently influenced due to operations involving dataloggers, not to mention downloading or checking temperature in mid-way will seriously breach temperature protection of package and compromise quality of your valuable goods.

TempSen's brand new Tempod Bluetooth temperature data logger series employs Bluetooth Low Energy technology, it brings customers the unparalleled advantages to remotely access data logger through wireless connection, customers could program, download, start and stop data logger outside of the package with few finger-taps on your smart device, and then your goods will be under the thorough monitoring across transportation.

You could easily download temperature data through USB connection either, no worries about installing software, Tempod data logger would automatically create encrypted PDF report which includes recording statistics i.e. Max, Min, MKT, alarms results including five alarm ranges, graph and event tabular data(optional), you won't miss any important information about your shipment, furthermore, raw data embedded in PDF report could be extracted after uploaded to TempSen Cloud for online data management and global accesses. LCD on Tempod data loggers also provides running and alarm status, remaining battery and statistics, you will be fully aware of what happened to your valuable goods at the first second you have the logger. With Tempod data loggers, you will have complete visibility of your shipments and your temperature controlled supply chain will be completely covered.

TempSen's strict quality control system ensure every Tempod data loggers shipped has been fully calibrated and inspected, protected data report and device access will help you better achieve regulation compliance.

## HOW TEMPOD BLUETOOTH WORKS?

Deploy

Program & Start

Check in shipping

Stop & Download

Export & Send Data

## TEMPSEN GO APP

▸ Available on both IOS / Android platforms

▸ Search, connect, control and download Bluetooth data loggers

▸ Save data into local data base on your mobile device

▸ Present data in powerful graph and detailed statistics views.

▸ Export data files as PDF / Excel formats

▸ Send exported files to partners through email and 3rd party App

▸ Track event based locations and presents on map

▸ Sync data to TempSen Cloud (optional)

Download on the App Store

Google play

### Bluetooth® Access

Access, control and download data logger outside of package or vehicle through Bluetooth® Low Energy (BLE) connection.

### Auto PDF Report With Embedded Raw Data

Automatically generated encrypted PDF format report, no software required to access data file. PDF report includes recording summaries, statistics, alarm information, graph and optional tabular data. Embedded raw data allows further data processing via TempSen Cloud and 3rd party system.

### Built-in USB Connector

Enables quick connection with PC anytime anywhere, no cable and reader required to download data.

### Flight Mode

Logger keeps recording with Bluetooth® wireless turned off under Flight Mode, and user could awake logger up from xflight mode remotely using TempSen Go App on smart device.

### Password Protection

Enable password protection to prevent unauthorized manipulation to device.

# APPLICATIONS

Air / Sea Freight

Distribution / Last mile

Storage / Refrigerator

Dry ice / Liquid nitrogen

# TECHNOLOGY HIGHLIGHTS

▸ Program, control and download data logger outside of package, container or vehicle, no sabotage to thermal protection.

▸ Flight mode allows data loggers to keep recording with Bluetooth signal transmission turned off, and Bluetooth could be turned on remotely using TempSen Go App on mobile device.

▸ External sensor probe with Teflon cable allows measurement of extreme low temperature environment (applicable to models with external temperature probe)

▸ Software-free online configuration

▸ RTCA DO-160G compliant allows monitoring in air freight

▸ IATA PI970 II compliant, your goods with Tempod inside will not be handled as dangerous goods

▸ GxP regulations compliant

▸ Firmware user upgradable

# TempSen

## TECHNICAL SPECIFICATIONS



|  | Tempod 20B | Tempod 50XB | Tempod 100XB | Tempod 200XB |
|---|---|---|---|---|
| Type | Multi-use | | | |
| Sensor | Internal NTC sensor | External NTC sensor, 1m | External RTD sensor, 1m | External RTDC sensor, 1m |
| Memory Capacity | 28800 readinngs | | | |
| Measurement Range | -20°C...70°C | -50°C...70°C | -100°C...70°C | -200°C...70°C |
| Accuracy | ±0.3°C (-20°C…20°C), ±0.5°C (other range) | ±0.3°C (-20°C…20°C), ±0.5°C (other range) | ±0.5°C | ±0.5°C (-100°C…70°C) ±1.0°C (-200°C…-100°C) |
| Resolution | 0.1°C / °F | | | |
| Start Mode | Manual / Auto / Temperature Condition | | | |
| Logging Interval | 1 minute…2 hours | | | |
| Alarm Range | High and low alarm / 5 alarm ranges | | | |
| Battery / Life | 3.0V CR2450 lithium battery, user replaceable / 12 months | | | |
| Display | LCD<br>•OK(√), Alarm(x), alarm zone<br>•Running status<br>•Temperature statistics (max, min, avg)<br>•Remaining battery level<br>•Mark history | | | |
| Connection | Bluetooth® Low Energy 4.0 / USB 2.0 | | | |
| Automatic Data File | Encrypted PDF report with embedded raw data | | | |
| Software | TempSen Go APP (Andriod / IOS)<br>TempCentre Data Management Desktop Software (21 CFR 11 compliant) | | | |
| Calibration | Factory NIST traceable 3-point calibration | | | |
| Certifications | CE, FCC, RTCA-DO160G, IATA PI970 II, WEEE, RoHS | | | |
| Dimensions | 100mm L x 40mm W x 12mm H | | | |
| Weight | Approx. 50g | Approx. 58g | Approx. 70g | Approx. 70g |
| Packaging/Material | Case / Polycarbonate | | | |
| Protection Class | IP65 | | | |