



Lives International[®]

Raising Standards

Thermal Validation & Mapping Solutions

**Focus on Reliability,
Thermal Validation & Mapping Solutions**




Lives International **XpertLog[®] / XpertVal64**


Real Time Wireless Data Loggers
Standard Wireless Data Loggers

64 Channel Data Acquisition System

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Elevating Thermal Validation through Innovation, Efficiency, and Excellence

Founded in 1999, Lives International emerged to redefine thermal validation and mapping within the pharmaceutical and biotechnology sectors—industries where precision, reliability, and compliance are critical.

From the beginning, our mission has been clear: to close the innovation gap in validation technology by delivering groundbreaking hardware and software solutions tailored to the evolving needs of the Life Sciences industry. Today, Lives International is recognized globally for setting new benchmarks in thermal validation, combining cutting-edge technology with unmatched usability and performance.

We revolutionized the way validation professionals work by anticipating the impact of emerging technologies and translating them into intuitive, robust, and high-performing tools. One of our early milestones was pioneering the use of PEEK (polyetheretherketone)—a high-performance polymer—in the construction of data loggers. This innovation enhanced durability, eliminated the need for bulky docks, and improved flexibility in process-critical environments.

Lives International was also among the first to introduce real-time wireless data loggers specifically designed for lyophilizers, autoclaves, and other demanding thermal applications. These solutions have dramatically streamlined validation workflows, reduced downtime, and boosted operational efficiency—delivering measurable value to our customers.

Our strengths

Reliable Thermal Validation Systems for Pharma & Biotech

- All loggers use 4-wire PTs: Highest class measurement accuracy for wireless loggers ($\pm 0.1^{\circ}\text{C}$) on the entire measurement range
- Robust logger body and sensor design
- FDA CFR 21 Part 11 compliant software
- ISO 17025 Calibrations
- Covers all Life Sciences applications
- Custom product development based on customers feedback
- Customized and made-to-order logger body, temperature sensor shape, and accessories optimized for application
- Rentals of most items we sell
- Reliable and fast response After Sales Service
- Customized products based on specific customer applications

Validation/Mapping measurement system category list

Real-time wireless data logger XpertLog® GMP RF (P. 5)



- Real-time data logger with excellent wireless communication features (up to 121 m) that allows remote setting and display of data during measurement
- Data is transmitted real time from the inside of the Autoclaves and Freeze Dryers to the laptop
- Operating temperature range: -90°C to +140°C
- Parameters: temperature/humidity/pressure/CO₂/Vacuum

Standard wireless data logger XpertLog® GMP (P. 11)



- Standard data loggers dedicated to all Pharma applications between -90°C to +140°C
- Logger body operating temperature range: -90°C to +140°C
- Logger sensor operating temperature range: -200°C to +200°C
- Parameters: temperature/humidity/pressure
- Small, light, easy to use

Standard wireless data logger XpertLog® GDP (P. 13)



- Standard data loggers dedicated to GDP applications
- Temperature measurement range: -40°C to +85°C
- Parameters: temperature/humidity
- Small, light, easy to use

64 Channel Data Acquisition System XpertVal64 (P. 14)



- Thermocouple based system dedicated to all applications in Pharma & Biotech
- 64 Channels
- Can read thermocouples, PT100, Pressure, CO₂, 4-20 mA, 0-10V
- Large touch screen 10.1"
- Acquisition interval 1 sec for 64 channels simultaneously
- User friendly interface

Validation/Mapping measurement system category list

Smart Connectors - XSens (P. 15)



- Robust design, click into sockets - prevents accidental sensor disconnection
- Each TC has a Unique ID - individually traceable
- Coefficients stored in each connector
- Compatible with XpertVal64 and XpertMon

Dedicated Software XpertLog® (P. 16)



- Dedicated validation/mapping software developed specifically for the pharmaceutical and biotech industries
- FDA CFR 21 Part 11 compliant
- XpertLog® Software can control all Lives Systems
- Active directory integrated

Secondary Reference Probe XpertRTD+ (P. 17)

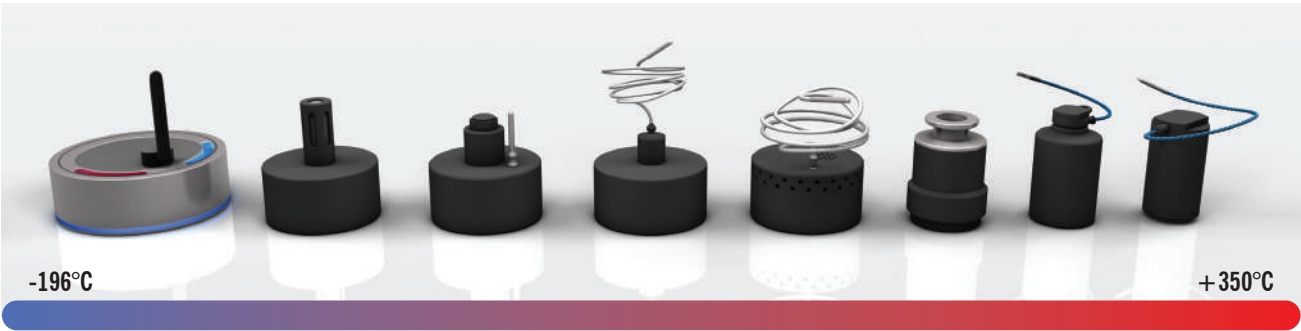


- Display interface between reference thermometer and Lives International System
- Display unit selectable: °C, °F, °K, Ω
- USB / Wireless signal transfer to XpertLog® System
- Can connect a Smart Probe to the display

Continuous Monitoring System XpertMon (P. 18)



- Unlimited number of sensors
- Historical data is stored in the cloud / locally
- Alarms sent by message / event to dedicated users
- Automatic report generation on request for the user defined interval
- Secured authentication prevents unauthorized access to the system
- Multiple access levels

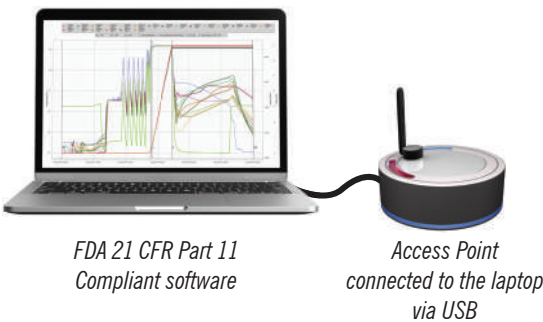


Applications

- Autoclave
- Sterilization tunnel
- Freeze Dryer
- Refrigerator
- SIP
- Stability chamber
- Freezers
- Warehouse

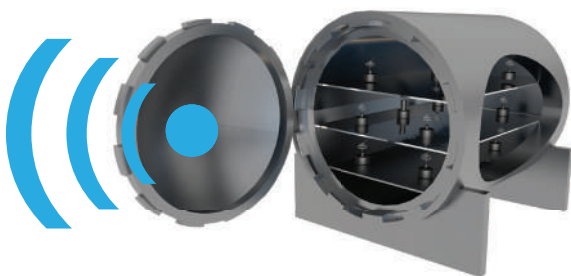
Main features

- Wireless Real time data view during studies
- Remote activation & Wireless data download
- Wide Wireless communication range with proprietary technology: up to 121m line of sight
- Wide RF communication temperature range
- No risk of data loss: data is simultaneously stored in the internal memory & sent real-time wirelessly to the software
- Material: PEEK, thermally inert, does not create hot or cold spot during studies
- Internal memory: 32.000 / 262.000 (LM = Large Memory) data points
- Automated Reporting when using XpertLog® - FDA CFR Part 11 compliant software
- Custom wire/sensor length
- Sensor operating range:
 - With Teflon cable: -200 °C to +200 °C
 - With Kapton cable: -200 °C to +350 °C (Dry environment)



FDA 21 CFR Part 11
Compliant software

Access Point
connected to the laptop
via USB



Wireless data transmission

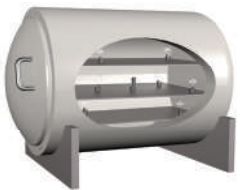
Autoclave with loggers inside

Validation/Mapping flow using real-time data loggers

1. Install the GMP RF data logger on the equipment to be validated
2. Connect the access point (data transmitter/receiver) to the dedicated XpertLog® software
3. Remotely activate GMP RF data loggers from XpertLog® software
4. Set measurement conditions (start time, stop time, measurement interval, data transfer interval) in XpertLog® software
5. Generate automated reports in XpertLog® software(see page 17 for details)

What is remote activation?

Real time data loggers can be programmed remotely regardless of the number of the loggers to activate to start a test whilst they are already inside the equipment to be validated.
No need to collect the loggers to download and reprogram - can be done remotely.



* Based on the type of logger and sensor connected; please read the description of each logger to define if compliant with your application

Real-Time Wireless Temperature Data Logger



Order reference: GMP-RF-F-30H

| | |
|--------------------|---|
| Temperature Range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 37 x 63 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Autoclave, freeze dryer, SIP, freezers: Ultra-low freezers: -80°C LN2 freezers: -196°C (sensors only) |

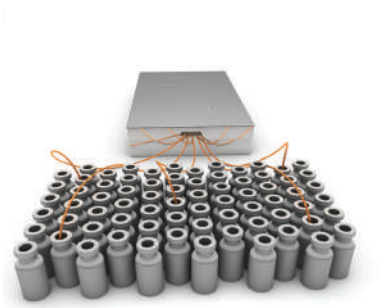
Real-Time Wireless Temperature Data Logger with 5 Sensors & External Battery



Order reference: GMP-RF-5F-LM

| | |
|--------------------|---|
| Temperature range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 262.000 data points / 52.400 data points per channel |
| Dimensions: | 65 x 55 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Autoclave, freeze dryer, SIP, freezers: Ultra-low freezers: -80°C LN2 freezers: -196°C (sensors only) |

Real-Time Wireless Temperature Data Logger for Tunnel Sterilizer



Order reference: GMP-RF-5F-HT

| | |
|-------------------------------|--|
| Temperature range: | -40°C to 350°C |
| Duration at high temperature: | 20 minutes at +350°C 25 minutes at +325°C 30 minutes at +300°C |
| Accuracy: | ±0.1°C @ -40°C to +140°C ±0.4°C @ +141°C to +350°C |
| Memory capacity: | 262.000 data points / 52.400 data points per channel |
| Dimensions: | 368 x 215 x 50 mm (L x W x H) |
| Material: | PEEK 1000 - FDA compliant and SS |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Sterilization Tunnel |

ALUS Compatible Real-Time Wireless Temperature Data Logger



Order reference: GMP-RF-F-10R

| | |
|--------------------|--|
| Temperature Range: | -60°C to +85°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 25 x 46 mm (D x H) |
| Battery lifetime: | Up to 1 month, based on usage |
| Application: | Freeze dryer (product temperature measurement inside a vial) |
| | Compliant with ALUS |

LyoTrain 10R - ALUS Compatible Real-Time Wireless Data Logger



Order reference: GMP-RF-LTset10RA

| | |
|--------------------|--|
| Temperature Range: | -60°C to +85°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 25 x 46 mm (D x H) |
| Battery lifetime: | Up to 1 month, based on usage |
| Application: | Freeze dryer (product temperature measurement inside a vial) |
| | Compliant with ALUS |

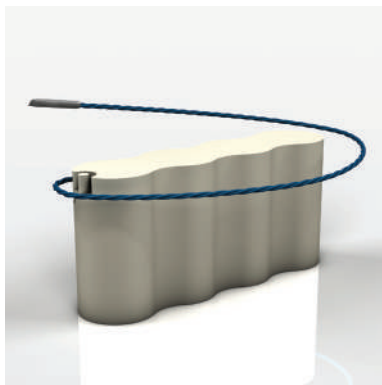
LyoTrain 30H - ALUS Compatible Real-Time Wireless Data Logger



Order reference: GMP-RF-LTset30H

| | |
|--------------------|--|
| Temperature Range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 37 x 63 mm (D x H) |
| Battery lifetime: | Up to 6 month, based on usage |
| Application: | Freeze dryer (product temperature measurement inside a vial) |
| | Compliant with ALUS |

ALUS Compatible Real-Time Wireless Temperature Data Logger



Order reference: GMP-RF-F-2R4V

| | |
|--------------------|---|
| Temperature Range: | -50°C to +85°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 72 x 18 x 33 mm (L x W x H) |
| Battery lifetime: | Up to 4 months, based on usage |
| Application: | Freeze dryer (product temperature measurement inside a vial) Compliant with ALUS |

Vial-Shaped Real-Time Wireless Temperature Data Logger for ALUS

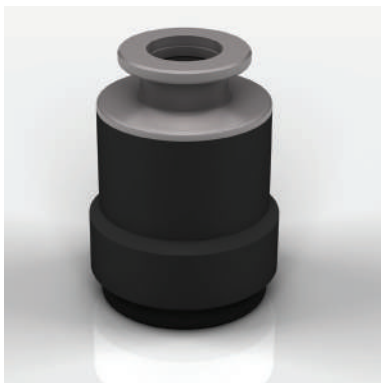


Order reference: GMP-RF-F-MTR70ml

| | |
|--------------------|--------------------------------|
| Temperature range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 46 x 75 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Freeze dryer |

70 ml vial shaped real time temperature logger, compatible with 150, 250 and 500 ml fake vials

Real-Time Wireless Vacuum and Temperature Data Logger



Order reference: GMP-RF-TV

| | |
|--------------------|---|
| Temperature Range: | -60°C to +85°C |
| Sensor type: | Vacuum: resistive diaphragm + Pirani |
| Connectivity: | Connected on a clamp type ISO-KF |
| Accuracy: | 1333 to 100 mbar: 0.5% of reading 99.9 to 10 mbar: 1% of reading 9.99 to 10 ⁻⁴ mbar: 5% of reading 9.99 x 10 ⁻⁵ to 10 ⁻⁵ mbar: 25% of reading |
| Memory capacity: | 16.000 data points vacuum 16.000 data points temperature |
| Dimensions: | 45 x 62 mm (D x H) |
| Power supply: | External power supply to the USB port |
| Application: | Freeze Dryers |

Real-Time Wireless Temperature & Humidity Data Logger



Order reference: GMP-RF-TH-F

| | |
|--------------------|---|
| Temperature range: | -40°C to +100°C |
| Accuracy: | ±0.1°C |
| Humidity range: | 0 to 100% RH non condensing ±2.0 RH, 0-75% @20°C to +45°C Calibrated 20°C to 45°C range |
| Memory capacity: | 16.000 data points humidity 16.000 data points temperature |
| Dimensions: | 65 x 62 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Stability chamber, warehouse, etc. *Rigid temperature sensor also available |

⚠ When used to measure temperatures outside the calibrated range, the RH is irrelevant and should not be taken into account

Real-Time Wireless Temperature & Pressure Data Logger



Order reference: GMP-RF-TP-F

| | |
|--------------------|---|
| Temperature range: | -40°C to +140°C |
| Accuracy: | ±0.1°C |
| Pressure accuracy: | 0.01 ~5 Bar |
| Accuracy: | ±10 mbar ≤ 3 BarA @ 130°C ±15 mbar ≤ 3 BarA @ 130°C |
| Memory capacity: | 16.000 data points temperature 16.000 data points pressure |
| Dimensions: | 65 x 51 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Autoclave, etc. *Rigid temperature sensor also available |

Real-Time Wireless Temperature & CO₂ Data Logger



Order reference: GMP-RF-TCO2-F

| | |
|---------------------------|--|
| Temperature range: | 0°C to +50°C |
| Accuracy: | ±0.1°C |
| CO ₂ accuracy: | 0-20% CO ₂ ±0.5% CO ₂ @ 0-10% CO ₂ |
| Memory capacity: | 16.000 data points temperature 16.000 data points CO ₂ |
| Dimensions: | 65 x 52 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Incubator, etc. |

Real-Time Wireless Temperature Data Logger



Order reference: GMP-RF-F

| | |
|--------------------|---|
| Temperature range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 / 262.000 data points temperature with LM option |
| Dimensions: | 65 x 55 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Autoclave, freeze dryer, SIP, freezers: Ultra-low freezers: -80°C LN2 freezers: -196°C (sensors only) |

Real-Time Wireless Temperature Data Logger for Blast Freezers



Order reference: GMP-RF-F-2R22V

| | |
|--------------------|--------------------------------|
| Temperature range: | |
| Short term: | -120°C (30 mins) |
| Operating range: | -90°C to +85°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points temperature |
| Dimensions: | 100 x 64 x 33 mm (W x D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Blast freezer |

Real-Time Wireless Temperature Data Logger with External Battery and Real Time Reading



Order reference: GMP-RF-5F-LM-EB

| | |
|--------------------|---|
| Temperature range: | -90°C to +140°C, real time at -90°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 262.000 data points temperature |
| Dimensions: | 65 x 52 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage External Battery Pack to allow RF communication down to -90°C |
| Application: | Ultra-low Freezer |

EN285 compliant Superfast Response time Data



Order reference: GMP-RF-F-THIN-FR

| | |
|--------------------|---|
| Temperature range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Acquisition rate: | 100 ms to 24 h |
| Memory capacity: | 32.000 / 262.000 data points temperature with LM option |
| Dimensions: | 65 x 55 mm (D x H) |
| Sensor Dimensions: | 2,5 x 10 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | EN285 Autoclave Qualification |

Real-Time Wireless Temperature Data Logger Low Profile



Order reference: GMP-RF-F-LP

| | |
|--------------------|---|
| Temperature range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 65 x 38 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Autoclave, freeze dryer, SIP, freezers: Ultra-low freezers: -80°C LN2 freezers: -196°C (sensors only) |

Real-Time Wireless Temperature Data Logger for BacTAlert®



Order reference: GMP-RF-F-Bio

| | |
|--------------------|--------------------------------|
| Temperature range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 34 x 102 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | BacTAlert® * * |

* * BacTAlert is a trade mark of Biomerieux

Standard Wireless Data Loggers - XpertLog® GMP

XpertLog® GMP



Applications

- Autoclave
- Freeze Dryer
- Freeze Refrigerator
- SIP
- Stability chamber
- Incubator
- Freezers
- Warehouse

Main features

- Standard wireless data logger to retrieve data after test cycles
- Small, light, easy to use
- Docking station: 4/8/12/20 loggers
- Material: PEEK, thermally inert, does not create hot or cold spot during studies
- Automated Reporting when using XpertLog® - FDA CFR Part 11 compliant software
- Internal memory for safe data storage during radio frequency data transmission

Validation/Mapping flow using standard data loggers

1. Connect the docking station (data reader) to the dedicated XpertLog® software
2. Place the GMP data loggers in the docking station
3. Set measurement conditions (start time, stop time, measurement interval) in XpertLog® software
4. Install the GMP data logger in the equipment to be validated, the measurement will automatically start/stop at the defined time.
5. After completing the measurement, insert the GMP data loggers in the docking station and read the data.
6. Generate automated reports in XpertLog® software (see page 17 for details)



Wireless Temperature Data Logger



Order reference: GMP-F

| | |
|--------------------|---|
| Temperature Range: | -90°C to +140°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 40 x 50 mm (D x H) |
| Battery lifetime: | Up to 12 months, based on usage |
| Application: | Autoclave, freeze dryer, SIP, freezers: Ultra-low freezers: -80°C LN2 freezers: -196°C (sensors only) |

Wireless Temperature & Humidity Data Logger



Order reference: GMP-F-TH

| | |
|--------------------|---|
| Temperature Range: | -40°C to +100°C |
| Accuracy: | ±0.1°C |
| Humidity accuracy: | 0-100% RH non condensing ±2.0 RH, 0-75% @ 20~45°C Calibrated for 20°C to 45°C |
| Memory capacity: | 16.000 data points humidity 16.000 data points temperature |
| Dimensions: | 40 x 60 mm (D x H) |
| Battery lifetime: | Up to 12 months, based on usage |
| Application: | Stability chamber, warehouse, etc. |

⚠ When used to measure temperatures outside the calibrated range, the RH is irrelevant and should not be taken into account

Wireless Temperature & Pressure Data Logger



Order reference: GMP-F-TP

| | |
|--------------------|---|
| Temperature range: | -40°C to +140°C |
| Accuracy: | ±0.1°C |
| Pressure accuracy: | 0.01 ~5 Bar |
| Accuracy: | ±10 mbar ≤ 3 BarA @ 130°C ±15 mbar ≤ 3 BarA @ 130°C |
| Memory capacity: | 16.000 data points temperature 16.000 data points pressure |
| Dimensions: | 40 x 69 mm (D x H) |
| Battery lifetime: | Up to 6 months, based on usage |
| Application: | Autoclave, etc. |

Standard Wireless Data Loggers - XpertLog® GDP



Applications

- Refrigerator
- SIP
- Constant temperature and humidity chamber
- Incubator

Main features

- Standard wireless data logger to retrieve data after test cycles
- Small, light, easy to use
- Material: POM-C, FDA Compliant
- Docking station: 4/8/12/20 loggers
- Automated reporting with FDA CFR Part 11 compliant software
- Internal memory for safe data storage

Wireless Temperature Data Logger for Mapping



Order reference: GDP-F

| | |
|--------------------|---------------------------------|
| Temperature Range: | -40°C to +85°C |
| Accuracy: | ±0.1°C |
| Memory capacity: | 32.000 data points |
| Dimensions: | 40 x 50 mm (D x H) |
| Battery lifetime: | Up to 12 months, based on usage |
| Application: | Freezer, refrigerator, etc. |

Wireless Temperature & Humidity Data Logger for Mapping



Order reference: GDP-TH

| | |
|--------------------|---|
| Temperature Range: | -40°C to +85°C |
| Accuracy: | ±0.1°C |
| Humidity accuracy: | 15-95% RH non condensing ±2.0 RH, 0-75% @ 20°C Calibrated only at 25°C ±5°C |
| Memory capacity: | 16.000 data points humidity 16.000 data points temperature |
| Dimensions: | 40 x 60 mm (D x H) |
| Battery lifetime: | Up to 12 months, based on usage |
| Application: | Stability chamber, warehouse, etc. |

* When used to measure temperatures outside the calibrated range, the RH is irrelevant and should not be taken into account

64 Channels system for thermal mapping and validation with multiple types of sensor (PT100, TC, Pressure, Humidity)



XpertVal64

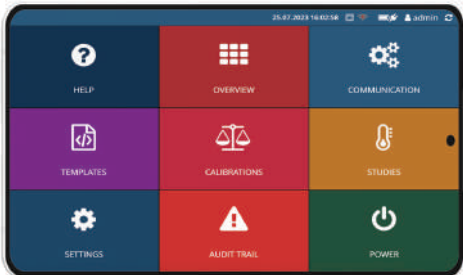
Applications

- Autoclave
- Dry heat sterilizer
- Sterilization Tunnel
- Freeze dryer
- Refrigerator
- SIP
- Freezer
- Warehouse
- Incubator

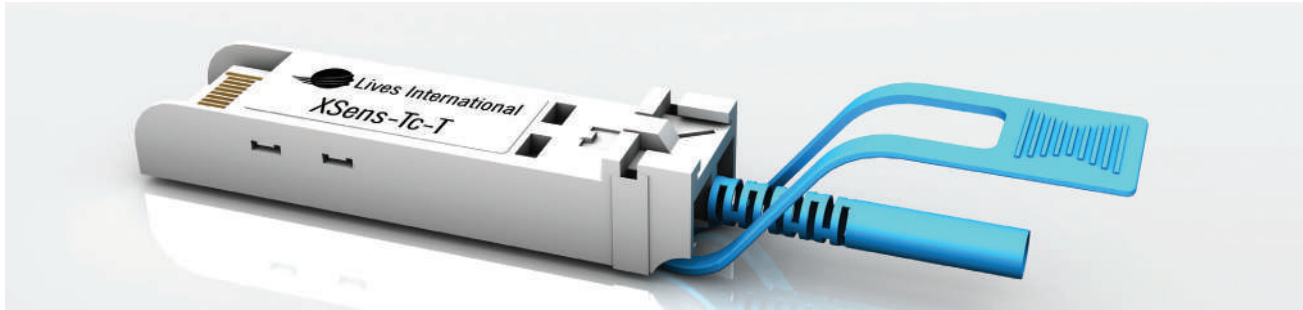
Main features

- No annual calibration needed
- Wi-Fi compatible, can be remotely controlled over Wi-Fi
- Connect 64 Smart Connectors and allow measurement every 1s for all the channels
- Standalone / Controlled by XpertLog® Software
- Cloud/local based data storage

| | |
|------------------------------|--|
| Sensors: | Smart connector dedicated for each type of sensors Most common sensor types: PT100, TC's, Humidity, Pressure, CO ₂ |
| Channels: | 64 channels - Cold junction compensation inside each smart connector for thermocouples |
| Measuring range: | -200 to +1200°C |
| Accuracy: | 0.05°C after calibration of sensors |
| Memory capacity: | Internal memory: 16 GB ; 4 GB data useful memory - transfer data from XpertVal64 logger to XpertLog® Software directly via XpertLog® or via USB stick - data protected through encryption in a proprietary format |
| Sampling rate: | 1s to 24h for 64 channels |
| Display: | Touch screen, 10.1" |
| Software: | FDA 21 CFR Part 11 compliant ; data integrity compliant |
| Universal input: | 4-20 mA / 0-10V / TC / PT-100 / Pressure / RH / CO ₂ |
| Communication: | 1 x USB to PC 2 x USB to equipment 1 x LAN to PC (with Power Over Ethernet) 2 x LAN to equipment 1 x Wi-Fi |
| Battery: | Internal rechargeable battery ; 8 hours running time |
| Main power: | 100V to 240V @ 50/60Hz |
| Closed loop calibration: | Can be performed directly from the touch screen or via XpertLog® software |
| Reference probes: | Direct connection to XpertVal64 via USB port |
| Compatible Reference probes: | Lives XpertRTD+, Fluke 1502A, Smart probe IRTD |
| Compatible Dry blocks: | Ametek, Fluke, Sika, Isotech, Kaye |
| Calibration: | Sensor Calibration: NIST / COFRAC * Available upon request User: closed loop calibration with or without XpertLog® Software |
| Can be operated: | - Standalone - from XpertLog Software - from any remote mobile device |



Proprietary rugged industrial connectors compatible with RTDs, thermocouples, and transducers, supporting both 0-10V and 4-20 mA signals

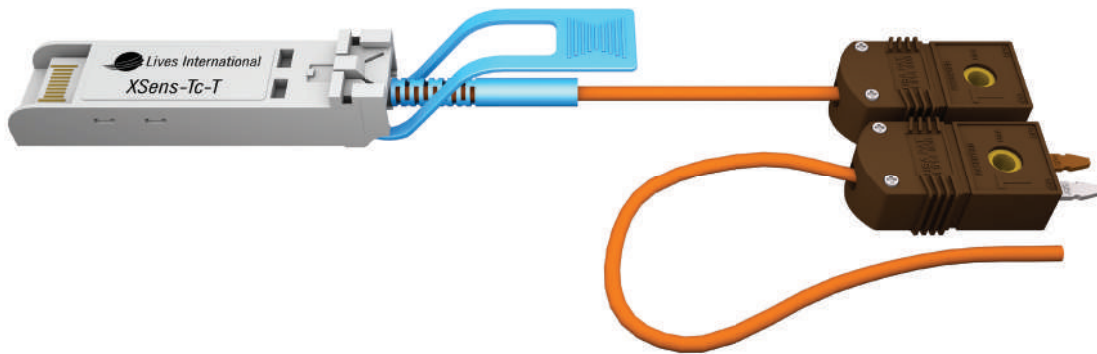


Compliant sensors

- PT100 RTD
- Thermocouples: Type K, T, J, etc.
- Pressure
- RH
- Humidity
- CO₂
- 0-10V
- 4-20 mA

Main features

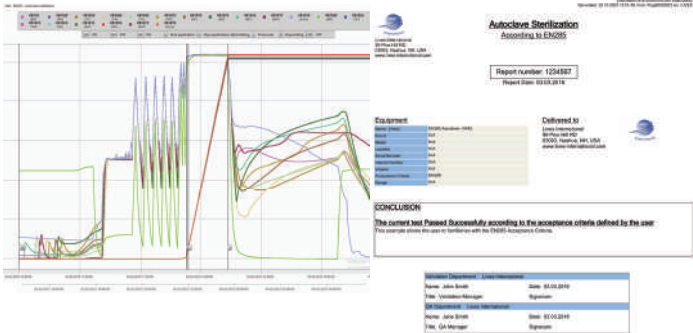
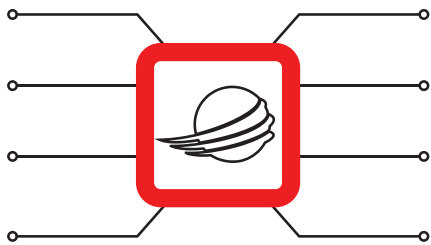
- Robust design, click into sockets - prevents accidental sensor disconnection
- Each TC has a Unique ID - individually traceable
- Coefficients stored in each connector
- Compatible with XpertVal64 and XpertMon
- Digital output to XpertVal64



Now available with Rapid Connectors inline which allow field replacement of thermocouple sensors.

Once new thermocouple is fitted the user simply performs a fully automated loop calibration to configure correction coefficients for the new sensor.

Part 11 Compliant Software XpertLog® For Validation and Mapping



Connect All Your Equipment To One Software

- Dedicated validation/mapping software developed specifically for the pharmaceutical and biotech industries
- FDA CFR 21 Part 11 compliant: user privilege settings, password management, audit trails, electronic signatures,
- XpertLog® software can control all Lives International Systems **XpertLogAll License is required**
- The full version of the software is a site license, can be installed unlimited times within the same site
- Centralized database, active directory integrated

✦ Cloud based version available

Features:

- Create reliable reports automatically to save time in report generation
- No risks of calculation error - automatic pass/fail assessment
- Flexible acceptance criteria setting for any equipment

USB communication with:

- Access Point
- Docking Station
- Temperature blocks/Oil baths
- Reference probes

4 access levels:

- Administrator
- User
- Reporter
- Reviewer

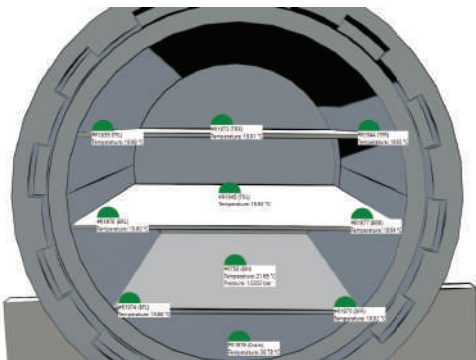
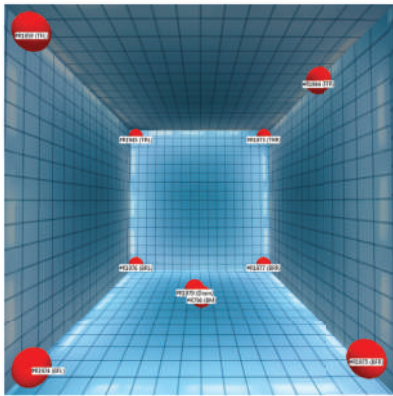
Closed loop calibration:

- fully automated calibration controlled by the software

Use of templates to create final reports:

- Pass/fail report
- Raw data report
- Trends
- F Values
- Statistics
- 2D report
- 3D report
- Calibration / verification report

Order reference: XpertLog



Summary results

| Acceptance criteria condition | Result | Pass condition | Status | Comment |
|--|-----------|----------------|--------|--|
| Minimum temperature | 121.02 °C | >= 121.00 °C | Pass | Min #R1944 (TFR) 03.03.2016 11:53:02 |
| Minimum temperature | 121.22 °C | >= 121.00 °C | Pass | Max #R1945 (TRL) 03.03.2016 11:53:02 |
| Max temp difference - all scans during hold time | 0.31 °C | <= 2.00 °C | Pass | 03.03.2016 12:13:36 |
| 8.2.1.2.4 | | | | |
| Holding time | 00:20:34 | >= 00:15:00 | Pass | Start:03.03.2016 11:53:02 Stop:03.03.2016 12:13:36 |

TEST PASSED - All acceptance criteria conditions defined by the user have been fulfilled.



Lives Reference Probe with Digital Display Unit

- Display interface between reference thermometer and Lives International system
- Display unit selectable: °C, °F, °K, Ω
- USB / Wireless signal transfer to XpertLog® System
- Can connect a Smart Probe to the display
- ISO 17025 calibration available

XpertRTD+

| | |
|--------------------|---|
| Temperature range: | -196°C to +420°C |
| Accuracy: | ±0.025°C |
| Wi-Fi: | 2.4GHz |
| Connectors: | 1 x USB B Port 1 x RJ12 port 1 x DIN 6 port |
| Weight: | 425 g |

Dry Blocks & Oil Baths

The XpertLog® software is compatible with calibration equipment from various manufacturers such as Ametek, Fluke, KAMBIC, Sika, Isotech, Kaye and more. When using compatible calibration equipment, the automated calibration is enabled.

Compatible models (partial)



JOFRA RTC-159
Temperature range: -100° ~ +155°C
Stability: ±0.03°C



JOFRA RTC-156
Temperature range: -30° ~ +155°C
Stability: ±0.005°C



KAMBIC OB-7/22/50/200/2
Temperature range: -90° ~ +300°C
Resolution: 0.01°C
Uniformity: < ± 0.007 @ 100 °C
Power: 230 V 50/60 Hz (± 10%)



FLUKE 7380
Temperature range: -80° ~ +100°C
Stability: ±0.5°C



Continuous Monitoring System

- Unlimited number of sensors
- Mounting: warehouses, equipment, clean rooms, etc.
- Historical data is stored in the cloud / locally
- Alarms sent by message / event to dedicated users
- Secured authentication prevents unauthorized access to the system
- Report generation on request for the user defined interval
- Multiple users with different access levels and privileges
- Data can be accessed remotely from any device with access to the server

XpertMon

Temperature range:

Back haul:

Gateway Battery lifetime:

Display Battery lifetime:

Dimensions:

Gateway weight:

Display weight:

-30°C to +55°C

Wi-Fi, LTE, and Ethernet

Up to 5 hours of autonomous work on battery

(Battery + Solar kit optional)

Minimum 2 years

220 x 220 x 104 mm (L x W x H)

~5.05 kg including the mounting kit

0.3 kg



R&D & Innovation - Expertise

At Lives International, R&D is the spark of innovation, and expertise is our compass. Together, they drive us to explore the unknown and lead the way in pioneering progress.



- In-house R&D, matching pharma requirements using state of the art technology
 - 26+ Years developing solutions to meet the needs of the pharma and biotech Industry
- Highly skilled personnel available for continuous support
- ISO Accreditations: 17025, 9001, 14001, 45001

Service Level Agreement

In order to keep the data logger running at peak performance while keeping maintenance costs down, we offer three types of maintenance agreements:

- We cover everything from battery replacement to regular calibration with an annual order
- We offer a plan that includes logger repair/replacement
- Reduces the time and effort involved in purchasing, avoids delays between receiving calibration / repair quotes and generating a P.O.

Maintenance contract plan for real-time temperature loggers

Service Level Agreement Table

| Service Level Agreement | Subscription |
|---|--------------|
| Basic includes: <ul style="list-style-type: none">• Battery, O-ring and grease replacement• Calibration• Functional testing | Basic |
| Premium includes Basic Plus <ul style="list-style-type: none">• Repair of sensor or electronics board in case of damage | Premium |
| Elite includes Premium Plus <ul style="list-style-type: none">• Replacement with new logger in case of total damage | Elite |

Feed through for sensor insertion



Easy insertion of thermocouples (up to 20) inside the autoclave. Used by attaching to the port of the equipment.

Smart Gasket & Clamp for SIP



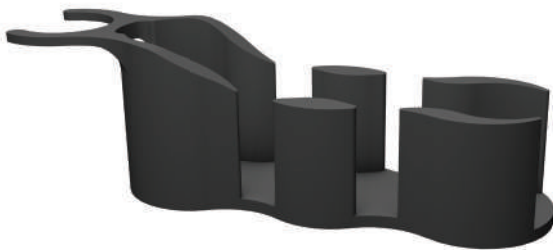
Accessory set for inserting and fixing the temperature sensor into the pipe. Use perforated gaskets & clamps, jigs to fix the sensor in the air.

LyoPuck



Used to measure freeze dryers' shelves temperature during a mapping. Eliminates the influence of outside factors while transmitting the temperature from the shelves to the sensor.

2R4V Adapter



Size-adjusting adapter for 2R4V logger to make it compatible with ALUS.

We also customize and custom-design validation accessories to suit your application. Please feel free to contact us.

Bracket



Mounting bracket for different applications.

Fedegari Adapter



Adapter for Fedegari autoclave to feed through.

Activation Point



Used to activate the Real Time Wireless Data Loggers.

Humidity Calibration Cap



Cap to protect humidity sensor during calibration.

We also customize and custom-design validation accessories to suit your application. Please feel free to contact us.

Shelf for Logger Calibration



Custom solution for Data Loggers calibration to make the logger sensors reach the bottom of the insert more easily.

Range Extender



Allows you to increase the coverage area of the access point.

Pliers



Allows you to open up the Data Loggers for battery replacement.

Pressure Transducer



EN285 compliant triclamp pressure transducer to connect on the autoclave during validations.

We also customize and custom-design validation accessories to suit your application. Please feel free to contact us.

Vial Cap



Vial cap with wire holders for 30 ml Vials, for PT 100 wire diameter 1.5 mm without stainless steel tip for product temperature measurement during freeze drying cycle.

Autoclave Drain Probe



Customizable autoclave drain probe holder (centers your probe or thermocouple in the center of the drain).

Y Adapter



Stainless steel Y DN50 adapter connects one port to the autoclave, one port to a feed through and one port to the pressure transducer.

We also customize and custom-design validation accessories to suit your application. Please feel free to contact us.

Logger Holder



Magnetic logger holder useful for placing the data loggers on the metal shelves of a warehouse.

Battery kit



Complete package for maintaining data loggers. Includes O-rings, silicone grease and batteries.

30H Logger Holder



GMP RF 30H PT Wire Holder.

We also customize and custom-design validation accessories to suit your application. Please feel free to contact us.



Lives International®

Raising Standards

Thermal Validation & Mapping Solutions



OUR HEADQUARTERS



USA

140 S Main Street Suite C,
Manchester, PA 17345



IRELAND

First Floor, Penrose 1, Penrose
Dock, Cork, T23 KW81



JAPAN

Egg Bldg. Daisan Esaka,
3-29, Hiroshibacho, Suita-shi,
Osaka, 564-0052



Quality

In-house manufacturing
And minimum outsourcing

Global Presence

3 Calibration laboratories
ISO 17025 certification
Direct Sales & Distributors

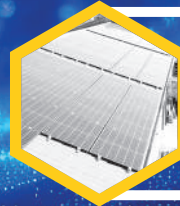


Customization

Custom solutions for your
Specific application

Reliability

Specifically designed for
Efficiency and accuracy



Sustainability

Using green energy, less metal,
recycling batteries & components
We make our planet a better world

Expertise

20+ Years developing solutions
to meet the needs of the
Pharma and Biotech industry



R&D & Innovation

In-house R&D, matching Pharma
requirements using
state of the art technology

After Sales Support

Highly skilled personnel available
for continuous support



Lives International



Lives International



Lives International



GET IN TOUCH
WITH US



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