

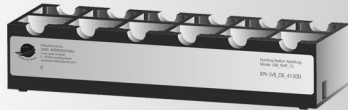


# THERMAL VALIDATION SYSTEMS

for the Pharmaceutical / Biotechnology Industry

Datalogger - 90°C to +140°C

## XpertLog® GMP



Docking station



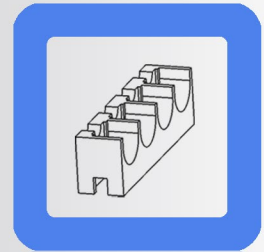
Temperature



Humidity



Pressure



XpertLog® GMP simplifies and makes the thermal validation process more efficient:  
high efficiency: easy to program and install, pre-calibration not needed  
high reliability: no data lose during validation process  
high accuracy: ±0.1°C from -90°C to 140 °C  
data integrity: FDA 21 CFR Part 11

- + Network ready: multiple users may simultaneously share the same data base
- + Remote factory calibration on users site

**Technical specifications:**

**Suitable applications:**

- Autoclaves / SIP
- Sterilization tunnels
- Freeze-dryers (lyo cabinets)
- Cold room / ICH stability rooms
- Ovens / Freezers / Refrigerators
- Incubators / Warehouses, etc...

Logger type	Temperature	Humidity	Pressure
Sensor - type	4 wires PT-100	4 wires PT-100 capacitive	4 wires PT-100 absolute pressure
- flexible	PTFE / SS 19" (480 mm)	1"(25 mm)	1"(25 mm)
- rigid	1"(25 mm) / 6"(150 mm)	19" (480 mm)	19" (480 mm)
- customized	up to 39" (1000 mm)	- 35 °C to 100 °C ; 10 - 95 % RH	- 40 °C to 140 °C ; 0.01 to 5 bar abs.
Range	- 90 °C to +140 °C	± 0.1 °C from - 35 °C to 100 °C ; ± 1.2 % RH @ 23°C ; ± 2.0 % RH over range 20to45°C* ;	± 0.1 °C from -40 to 140°C ± 10 mbar @ 0.01 ; 1& 2 bar abs. ± 15 mbar @ 0.1 ; 0.2 & 3 bar abs.
Accuracy	± 0.1 °C from -90 to 140°C	40 mm	40 mm
Size - diameter	40 mm	70 mm	100 mm
- height	30 mm	16,000 rh / 16,000 temp.	16,000 p / 16,000 temp.
Memory capacity	32,000 data points		
Battery	lithium batteries, (user replaceable)		
Sampling rate	1 sec to 24 hours		
Battery lifetime	Up to 12 month - based on user usage		
Internal clock drift	4 sec / 24 h @ 23 °C		
Docking station	USB to computer: Available models: 4, 8, 12 and 20 ports Program and read unlimited numbers of loggers, regardless the number of ports		
Material	Ketrion peek - FDA compliant		
Enclosure	IP-68		
Calibrations	Factory: traceable NIST / COFRAC - ITS-90 coefficients resides in internal memory User: Close loop user calibration, on user site, using provided validation software XpertLog®		
Certification	EMC : EN 60601-1-2 / 2007 RF : EN 300440-2 v1.3.1 (2009-03) Health Safety : EN 60950-1/2006 * Temperature compensated between 20 to 45°C - can be extended to higher temperatures		



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