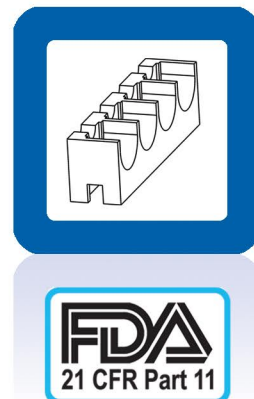


THERMAL VALIDATION SYSTEMS
for the Pharmaceutical / Biotechnology Industry

Data Logger - 90°C to +140°C

XpertLog® GMP



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 loss 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 database
- + Remote factory calibration on users site

Suitable applications:

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

Technical Specifications:

Logger type	Temperature	Humidity & Temperature	Pressure & Temperature
Sensor element - flexible - rigid - customized	4 wires PT-100 - PTFE / SS 480 mm (19") - 20 mm (0.8") / 150 mm (6") - up to 39" (1000 mm)	capacitive / 4 wires PT-100 - 20 mm (0.8") - 480 mm (19")	absolute pressure / 4 wires PT-100 - 20 mm (0.8") - 480 mm (19")
Operating range - standard: - extended:	-90 °C to +140 °C -90 °C to +350 °C *	0 to 100 % RH non condensing -40 °C to 100 °C	0.01 to 5 BarA -40 °C to 140 °C
Accuracy	±0.1 °C from -90 to 140°C	±2.0 % RH, 0% to 100% non condensing at 20 to 45°C **	±10 mbar ≤ 3 BarA @ 130°C ±30 mbar > 3 BarA @ 130°C ±20 mbar ≤ 3 BarA @ 23°C ±50 mbar > 3 BarA @ 23°C ±0.1 °C from - 40 to 140°C 16,000 p / 16,000 temp
Memory capacity Sampling rate Internal clock drift	32,000 data points 1 sec to 24 hours 4 sec / 24 h @ 23 °C	±0.1 °C from -40 °C to 100 °C 16,000 rh / 16,000 temp 1 sec to 24 hours 4 sec / 24 h @ 23 °C	±0.1 °C from - 40 to 140°C 16,000 p / 16,000 temp 1 sec to 24 hours 4 sec / 24 h @ 23 °C
Mechanical Material Enclosure Weight Diameter Height	Peek 1000 - FDA compliant IP-68 44 g (1.55 oz) 40 mm (1.57") 50 mm (1.97")	Peek 1000 - FDA compliant IP-51 & IP-68 43 g (1.52 oz) 40 mm (1.57") 60 mm (2.36")	Peek 1000 - FDA compliant IP-68 77 g (2.72 oz) 40 mm (1.57") 96 mm (3.78")
Power	1 Lithium battery, 0.35 g Lithium content, classified UN3091 under IATA DGR section 3.9.2.6, compliant with ICAO/IATA packing instructions 970		
Battery lifetime Docking station	Up to 12 months: based on usage USB to computer: 4, 8, 12 and 20 ports available programs and reads unlimited numbers of loggers		
Calibrations	Factory: traceable NIST / COFRAC - ITS-90 coefficients stored in the internal memory User: close loop calibration, using XpertLog® software		
Certification	FMC: EN 60601-1-2 / 2007 Health Safety: EN 60950-1/2006		

* With thermal shield; ** Custom points available at request

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Data Logger - 90°C to +140°C

XpertLog® GMP
Available Models



GMPL

Temperature data logger with customizable rigid sensor



GMPF

Temperature data logger with flexible sensor



GMPF LP

Low profile temperature logger



GMP WM

Temperature logger with protected sensor for stopper washers and sterilizers



GMPF P

Pressure and temperature logger with flexible temperature sensor



GMPF RH

Humidity and temperature logger with flexible temperature sensor



GDPF BF

Temperature logger with buffer and flexible sensor



GDP RH

Humidity and temperature logger