

THERMAL VALIDATION SYSTEMS

for the Pharmaceutical / Biotechnology Industry

Real Time Data Logger

XpertLog® GMP - RF



Access point



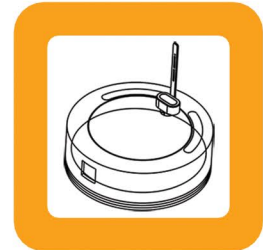
Temperature



Humidity



Pressure



XpertLog® GMP - RF elevates thermal validation process to a whole new level:
 Highly efficient: increase production efficiency by cutting down validation time
 Highly reliable: never loses data during the cycle runs
 Real time: sequential readings from unlimited number of loggers
 simultaneous readings from up to 20 loggers
 Impressive 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
- + Loggers calibration on users site
- + Remote activation, SCADA connectable

Suitable applications:

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

Technical Specifications:

Logger type	Temperature	Humidity & Temperature	Pressure & Temperature
Sensor element	4 wires PT-100	capacitive 4 wires PT-100	absolute pressure 4 wires PT-100
- 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)		
Operating range			
- standard:	-90 °C to +140 °C	0 to 100 % RH non condensing	0.01 to 5 bar abs
- extended:	-90 °C to +350 °C *	-40 °C to 100 °C	-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 @ 0.01; 1& 2 bar abs
Memory capacity	32,000 data points	±0.1 °C from -40 °C to 100 °C	±0.1 °C from - 40 to 140°C
Sampling rate	1 sec to 24 hours	16,000 rh / 16,000 temp	16,000 p / 16,000 temp
Internal clock drift	4 sec / 24 h @ 23 °C	1 sec to 24 hours	1 sec to 24 hours
Mechanical		4 sec / 24 h @ 23 °C	4 sec / 24 h @ 23 °C
Material	Peek 1000 - FDA compliant	Peek 1000 - FDA compliant	Peek 1000 - FDA compliant
Enclosure	IP-68	IP-51 & IP-68	IP-68
Weight	115 g	95 g	142 g
Diameter	65 mm	65 mm	65 mm
Height	55 mm	62 mm	87 mm
Power	Lithium batteries: user replaceable		
Battery lifetime	Up to 6 months: based on usage		
Wireless range	400 feet (121 m) line of sight		
Radio frequency	2.4 GHz ISM band		
Access point	USB to computer		
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		
	RF: EN 300440-2 v1.3.1 (2009-03)		
	Health Safety: EN 60950-1/2006		

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

THERMAL VALIDATION SYSTEMS
for the Pharmaceutical / Biotechnology Industry

Real Time Data Logger

XpertLog® GMP - RF
Available Models



GMPL RF

Temperature logger with customizable rigid sensor



GMPF RF

Temperature logger with flexible sensor



GMPF LP RF

Low profile temperature logger



GMPF P RF

Pressure and temperature logger with flexible temperature sensor



GMP Bio RF

Temperature logger with flexible sensor



GMP Bio SS RF

Temperature logger with flexible stainless steel memory form sensor



GMP Mini RF

Temperature logger designed to measure temperature inside vials *



Custom RF logger

Custom designed wireless data logger for the freeze-drying process

* restrictions apply to vials diameter and battery life