TME — TECHNOLOGY IN TEMPERATURE

	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Software designed compliancy standard	FDA 21 CRF Part 11 requirements for electronics records[1]	BRC, HACCP & GMP monitoring system requirements	HACCP monitoring requirements

Data & Data Storage

	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Internal Memory Storage Period	150 sensors 6 months 75 sensors 1 year 30 sensors° 2 years	150 sensors 6 months 75 sensors 1 year 30 sensors° 2 years	20 sensors° 4 years
Data Back-Up Media	Integral – 8Gb Micro Industrial HD MMC	Integral – 4Gb Micro Industrial HD MMC	Integral - 4Gb Micro Industrial HD MMC
Back-Up Memory Storage Period	150 sensors 4 years 75 sensors 8 years 30 sensors° 10 years+	150 sensors 2 years 75 sensors 4 years 30 sensors° 8 years	2 years
Back-Up Frequency	Automatic - daily	Automatic - daily	Automatic daily
Manual Back-Up	Manual back-up of MMC to PC/server	Manual back-up of MMC to PC/server	Manual back-up of MMC to PC/server
Battery Back-Up	Yes	Yes	No
Operating Time on Battery Back-Up	Up to 12 hours during normal system operation	Up to 12 hours during normal system operation	-
Display - Colour TFT with Resistive Touch Screen	Yes	Yes	Yes
Maximum Number of Sensor Inputs	150 wireless sensors per base station***	150 wireless sensors per base station***	20 wireless sensors per base station***
Resolution of the Sensor Readings	Integer to 3 decimal places as required	Integer to 3 decimal places as required	Integer to 1 decimal place as required

Wireless Frequency

	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
433Mhz & 868Mhz (Europe)	Yes	Yes	Yes
2.4Ghz (ROW)	Yes	Yes	Yes

Wireless Transmission Distance (open field)

	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
433Mhz & 868Mhz	1km (typically 250 meters in buildings)	1km (typically 250 meters in buildings)	500m (typically 100 meters in buildings)
2.4Ghz	100m (typically 30-50 meters in buildings)	100m (typically 30-50 meters in buildings)	100m (typically 30-50 meters in buildings)
Range Extender available	Yes	Yes	Yes

Users & Security

	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Max Number of Users	30	30	5
Network Connectivity	Yes	Yes	Yes

Security

Security	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Username & Passcodes	Yes	Yes	Yes
Passcode Expiry	Yes	Yes	Yes
Multiple User Levels	Yes	Yes	Yes
Data Storage Rate	Automatic - daily	Automatic - daily	Automatic - daily
Browser Security	HTTPS Capable	HTTPS Capable	HTTP Capable
Email	SSL Encryption Capable	SSL Encryption Capable	SSL Encryption Capable

System Alarms

System Alarms	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Set Points	Upper & Lower Warning & Critical Alarm Set Points	Upper & Lower Warning & Critical Alarm Set Points	Upper & Lower Warning & Critical Alarm Set Points
Alarm Delays	User Defined	User Defined	User Defined
Audible Alarm	Yes	Yes	Yes
Alarm Email	Yes	Yes	Yes
Alarm Acknowledge	Yes	Yes	Yes
Alarm Notes	20 notes per alarm	20 notes per alarm	5 notes per alarm
Relay Outputs	2	2	2
Alarms over IP	Up to 3 IP Address	Up to 3 IP Address	Up to 3 IP Address

Inputs / Outputs

Inputs / Outputs	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Micro USB Output	Yes	Yes	Yes
Mini Din Input for External Hard-wired Hardware	Yes	Yes	Yes
Universal 5v DC power adaptor - 110 to 240v Power Supply	Yes	Yes	Yes

* Sensors, wireless transmitters & hardwired connectors available separately

** Existing Tek Troniks 433Mhz DataCentre sensors are compatible with all 433Mhz D3 Base Stations

[1] Meets the standard for storage and review of data when used in conjunction with user defined procedures for FDA21 CRF Part 11 requirements. ° Based on the average volume of sensors per system version sold in 2020

Technical Specification	TME-P1-D3103 Medical	TME-P1-D3102	TME-P1-D3101 Lite
Height, Width, Depth	175mm (max), 157mm, 40mm (including wall plate)		
Weight	317 grams (including wall plate & battery back-up)		271 grams (including wall plate)
Operating Temperature	0°C to +40°C		
Storage Temperature	0°C to +50°C		
Power Supply	5V dc via an external universal power brick (supplied), descrete push button on/off fuction on base station		
Operating System	Embedded		
Internal Storage	1Gb high speed data flash		
Back-up Storage Media	8Gb industrial grade micro MMC	4Gb industrial grade micro MMC	4Gb industrial grade micro MMC
Display	Full Colour 480 x 272 Resistive Touch Screen		
LED	Solid Green (main power, no alarms), Solid Red (mains power, with alarms), Flashing Green or Red (on battery back-up, with or without alarms)		Solid Green (main power, no alarms), Solid Red (mains power, with alarms)
Sounder	Built-in buzzer (can be switched off in software)		
USB	Micro USB 2.0 (for maintenance purposes only)		
Ethernet	Built-in (2 meter cable supplied with unit)		
Relay Outputs	Relay 1: Volt free relay output providing NO & NC contacts Relay 2: Mossfet Switch		
Mini Din Socket	For connection to proprietary external hardware		
Low Power Radio Module	Yes		
Frequency	433Mhz & 868Mhz (UK/Europe), 2.4Ghz (ROW) – licence free bands		
Power	10mW maximum (433Mhz), 14dbm maximum (868Mhz) & 14dbm maximum (2.4Ghz)		
Communications	Bi-directional		
Protocol	Proprietary (433Mhz), 802.15.4 Proprietary (868Mhz) & 802.15.4 Proprietary (2.4Ghz)		
Battery Back-Up	Yes		No
Type	Plug connection lithium ion rechargeable		-
Power Voltage	3.7V		-
Capacity	2050mA		-
Recharge Time	2.5 hours (from flat)		-
Test Cycle	Advise monthly by removing system power		-