



## SPECIFICATIONS

Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call (603) 456-2011 or go to [madgetech.com](http://madgetech.com) for details.

INTERNAL CHANNELS	
Temperature Range	-20 °C to +60 °C (-4 °F to +140 °F)
Temperature Resolution	0.01 °C (0.018 °F)
Calibrated Accuracy	±0.5 °C (0 °C to 50 °C)

REMOTE CHANNELS			
Remote Channel Thermocouple Types	J, K, T, E, R, S, B, N		
Thermocouple Connection	Female subminiature (SMP)		
Cold Junction Compensation	Automatic, based on internal channel		
Thermocouple	Range (°C)	Resolution	Accuracy*
J	-210 to +760	0.1 °C	±0.5 °C
K	-270 to +1370	0.1 °C	±0.5 °C
T	-270 to +400	0.1 °C	±0.5 °C
E	-270 to +980	0.1 °C	±0.5 °C
R	-50 to +1760	0.5 °C	±2.0 °C
S	-50 to +1760	0.5 °C	±2.0 °C
B	+50 to +1820	0.5 °C	±2.0 °C
N	-270 to +1300	0.1 °C	±0.5 °C

\*Thermocouple accuracy specified with 24 AWG diameter thermocouple wires.

MAXIMUM EXPOSURE TIME	
Ambient Temperature	Maximum Duration in Minutes
100 °C (212 °F)	110
150 °C (302 °F)	62
200 °C (392 °F)	45
250 °C (482 °F)	35
260 °C (500 °F)	33
300 °C (572 °F)	30
350 °C (662 °F)	25

GENERAL	
Start Modes	Push button start and software programmable immediate start or delay start up to six months in advance
Memory (all channels enabled)	4-channel: 524,032 readings per channel 8-channel: 262,016 readings per channel
LEDs	1 per channel and 2 status LEDs
Reading Rate	4 Hz up to 1 reading every 24 hours
Calibration	Digital calibration through software
Calibration Date	Automatically recorded within device
Battery Type	9 V lithium battery included, <b>user replaceable</b>
Battery Life	18 months typical
Data Format	Date and time stamped °C, °F, K, °R, mV, V
Time Accuracy	±1 minute/month
Computer Interface	USB-A to micro USB cable (included); 460,800 baud
Operating System Compatibility	Windows XP SP3 or later
Software Compatibility	Standard Software version 4.2.17.0 or later Secure Software version 4.2.16.0 or later
Internal TCTempX	-20 °C to +60 °C 0 %RH to 95 %RH non-condensing
ThermoVaultX System	-20 °C to +350 °C 0 %RH to 95 %RH non-condensing
Dimensions	12.3 in x 6.65 in x 2.45 in (312 mm x 168 mm x 62 mm) <i>[Includes handles, brackets and front enclosure latches]</i> 9.1 in x 5.9 in x 2.45 in (231 mm x 149 mm x 62 mm) <i>[Enclosure case only. Excludes handles, brackets and latches]</i>
Weight	4-channel: 8.85 lb (4.01 kg) 8-channel: 8.98 lb (4.07 kg)

**BATTERY WARNING:** BATTERY MAY LEAK, FLAME OR EXPLODE IF DISASSEMBLED, SHORTED, CHARGED, CONNECTED TOGETHER, MIXED WITH USED OR OTHER BATTERIES, EXPOSED TO FIRE OR HIGH TEMPERATURE. DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN.

The included USB cable and power adapter should not to be used at temperatures above 40 °C.

## Ordering Information

ThermoVaultX4	PN 901350-00	Thermal Shield with a 4-channel temperature data logger, 72 inch 24 AWG type K thermocouples (0 °C to +482 °C); USB-A to micro USB cable and universal power adapter
ThermoVaultX8	PN 900437-00	Thermal Shield with an 8-channel temperature data logger, 72 inch 24 AWG type K thermocouples (0 °C to +482 °C); USB-A to micro USB cable and universal power adapter
U9VL-J	PN 901804-00	Replacement battery for TCTempX Series