# TITAN S8

Portable Data Acquisition Logger



The MadgeTech Titan S8 is a portable, multi-use data logger with eight input channels, one configurable alarm output and a user-friendly touchscreen interface. This versatile logger can measure multiple parameters in real time including temperature, current, voltage, pulse and frequency. It also supports thermocouple, RTD or thermistor probes. This adaptability and power make Titan S8 the perfect companion for any industrial engineer, quality assurance professional, compliance officer or automotive technician.

Part of the Titan S8's strength comes from its independence. Unlike many data loggers, the Titan is a complete, all-in-one solution that does not require a PC or any downloaded software for operation. This means the device is truly ready for use at a second's notice and will never leave users waiting because of upload times or a frustrating software interface.





5 INCH TOUCH SCREEN



REAL-TIME DATA VISUALIZATION



ON-SCREEN KEYBOARD



16-BIT HIGH RESOLUTION



ON-SCREEN ALERTS





DISPLAY ROTATION



WIRING DIAGRAM



### **Features**

- Simultaneously Records
   8 Different Parameters
- Download Data Via USB
- 1 GB Internal Memory
- Programmable Engineering Units
- No Required Software
- Rechargeable Battery
- Charger Included
- 1 Configurable Alarm Output

## **Applications**

- HVAC Performance
- · Energy Audits
- Automotive Safety Engineering
- Electronic Manufacturing
- Plant/Factory Performance
- Laboratory & Life Sciences
- Industrial Equipment Repair
- Food Safety





# **SPECIFICATIONS**

Specifications subject to change. See MadgeTech's Terms and Conditions at madgetech.com.

GENERAL			
Dimensions	6.65 in x 4.40 in x 1.41 in (168.9 mm x 111.8 mm x 35.8 mm) Data logger only		
Touch Screen Dimensions	5 inches		
Number of Channels	8 inputs and 1 alarm output		
Weight	1.3 lbs (20.8 oz)		
IP Rating	IP20		
Start Modes	Immediate Start & Delay Start		
Memory	1.8 GB, with session size of 1,000,000 or 5,000,000 readings		
Battery Type	Rechargeable 3.7 V Lithium Ion Battery Pack		
Battery Life	Continuous on-screen sampling: 7–9 hours depending on display setting and reading rate		
Data Format	Exported .csv file format, .mtb or both		
Time Accuracy	±1 minute/month		
Operating	0 °C to +50 °C (32 °F to +122 °F)		
Environment	0 %RH to 95 %RH non-condensing		
Enclosure Material	Polycarbonate, TPE Protective Boot		
Calibration	Factory calibration is recommended annually		
Alarm Output	50 mA @ 100V, Solid State Relay Output		

0 - 24 mA		
Range	-5 mA to 50 mA	
Resolution	0.0001 mA	
Accuracy	±0.024 mA (0 to 24 mA)	
Input Impedance	30 Ω	
0 - 100 mV		

**BATTERY WARNING:** Battery may explode or catch fire if mistreated. Do not disassemble or dispose of in fire. Do not charge except specified with charging condition. Do not heat above 212 °F, or short circuit. Do not crush or modify.

Range	-100 mV to 2450 mV			
Resolution	0.001 mV			
Accuracy	±0.1 mV (0 to 100 mV)			
Input Impedance	1 GΩ			
Maximum Voltage	3.0 V			
0 - 10 V				
Range	-0.5 V to 12.5 V			
Resolution	0.001 V			
Accuracy	± 0.01 V (-0.5 V to 12.5 V)			
Input Impedance	1 GΩ			
Maximum Voltage	25 V			
FREQUENCY / PULSE				
Maximum Count	4,000,000,000			
Maximum Frequency	25 KHz			
Input Signal	0 V to 12 V			
Input Impedance	58 ΚΩ			
TEMPERATURE PT-100 (2, 3, 4-WIRE RTD) (0.00385 CURVE)				
Б	000000 00000000000000000000000000000000			
Range	-200 °C to +850 °C (Probe Dependent)			
kange	$-200$ °C to +850 °C (Probe Dependent) (18.5 $\Omega$ to 390.5 $\Omega$ )			
Resolution	, , , , , , , , , , , , , , , , , , , ,			
	(18.5 Ω to 390.5 Ω)			
Resolution Accuracy	(18.5 Ω to 390.5 Ω) 0.01 °C ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)			
Resolution	(18.5 Ω to 390.5 Ω) 0.01 °C ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  **C-1 (2252)			
Resolution Accuracy	(18.5 Ω to 390.5 Ω) 0.01 °C ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)			
Resolution Accuracy TEMPERATURE NT Range	(18.5 Ω to 390.5 Ω) 0.01 °C ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω) <b>C-1 (2252)</b> -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω)			
Resolution Accuracy TEMPERATURE NT Range Resolution	(18.5 Ω to 390.5 Ω) 0.01 °C ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  C-1 (2252)  -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω) 0.01 °C			
Resolution Accuracy  TEMPERATURE NT Range  Resolution Accuracy	(18.5 Ω to 390.5 Ω)  0.01 °C  ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  C-1 (2252)  -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω)  0.01 °C  ±0.50% FSR (Probe Dependent)			
Resolution Accuracy TEMPERATURE NT Range Resolution	(18.5 Ω to 390.5 Ω)  0.01 °C  ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  C-1 (2252)  -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω)  0.01 °C  ±0.50% FSR (Probe Dependent)			
Resolution Accuracy  TEMPERATURE NT Range  Resolution Accuracy	(18.5 Ω to 390.5 Ω)  0.01 °C  ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  C-1 (2252)  -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω)  0.01 °C  ±0.50% FSR (Probe Dependent)  C-2 (10K)  -25 °C to +150 °C (Probe Dependent)			
Resolution Accuracy TEMPERATURE NT Range Resolution Accuracy TEMPERATURE NT Range	(18.5 Ω to 390.5 Ω)  0.01 °C  ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  C-1 (2252)  -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω)  0.01 °C  ±0.50% FSR (Probe Dependent)  C-2 (10K)  -25 °C to +150 °C (Probe Dependent) (102,900 Ω to 238 Ω)			
Resolution Accuracy TEMPERATURE NT Range Resolution Accuracy TEMPERATURE NT	(18.5 Ω to 390.5 Ω)  0.01 °C  ±0.1 °C (-200 °C to +400 °C) (Probe Dependent) ±0.034 Ω (18.5 Ω to 247.1 Ω)  C-1 (2252)  -25 °C to +150 °C (Probe Dependent) (29,380 Ω to 41.9 Ω)  0.01 °C  ±0.50% FSR (Probe Dependent)  C-2 (10K)  -25 °C to +150 °C (Probe Dependent)			

#### RTD Note (All RTD Configurations)

Temperature Specifications based on ideal 100  $\Omega$  PT RTD Complaint with IEC 751(1983) and ITS-90. Accuracy based on 4-wire configuration.

THERMOCOUPLE TYPE	RANGE	RESOLUTION	ACCURACY*
J	-200 °C to +760 °C	0.1 °C	±0.5 °C
K	-270 °C to +1370 °C	0.1 °C	±0.5 °C
Т	-270 °C to +400 °C	0.1 °C	±0.5 °C
E	-270 °C to +980 °C	0.1 °C	±0.5 °C
R	-50 °C to +1760 °C	0.5 °C	±2.0 °C
S	-50 °C to +1760 °C	0.5 °C	±2.0 °C
N	-270 °C to +1300 °C	0.1 °C	±0.5 °C
В	50 °C to 1820 °C	0.5 °C	±2.0 °C

\*Thermocouple accuracy specified with 24 AWG diameter thermocouple wires. Accuracy does not include Cold Junction Compensation (CJC). CJC error: ±1.5 °C.

At room temperature (25 °C  $\pm 10$  °C) after 60 minute warm-up period. Temperature calibrated accuracy is thermocouple dependent.



Distributed by IOThrifty Website: IOThrifty.com Email: service@iothrifty.com Telephone: 1-860-733-1117