

SENTINEL SYSTEM SPECIFICATION

Permanent monitoring for lead-acid batteries. Unlimited capacity with networking.

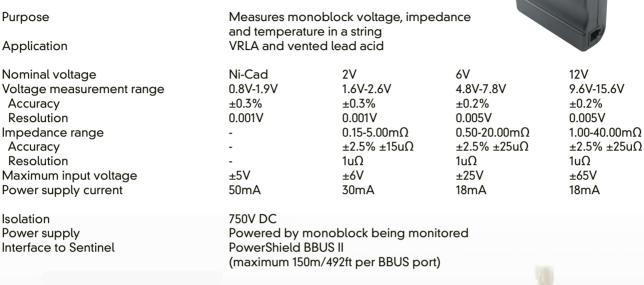
Sentinel Monitor

The Monitor captures, processes and stores data from a range of sensors. This includes monoblock voltage, impedance and temperature, string voltage and current, plus ambient temperature.

Power supply	DC option: 48V – 110V DC, max 0.4A AC option: 110V – 230V AC (50/60Hz), max 0.15A		
Battery inputs Sensor type String voltage	up to 160 (scaleable to 1280) Measurement Module or m-Senzor 2V-600V		
Current inputs Sensor type Signal System accuracy Maximum distance	up to 5 (scaleable to 32) Hall Effect nominal ±4V max ±10V ±1% + sensor accuracy 15m / 50ft ¹		
Temperature inputs System accuracy Measuring range Maximum distance	up to 5 (scaleable to 32) ±1°C / 1.8F 0°C to 50°C/32F to 122F 15m/50ft		
Digital inputs	4		
Relay outputs Rating Selectable	4 1.25A @ 24VDC Any relay configurable to any alarm		
Memory	700kb		
Physical dimensions	Width: 430mm / 17 inches (19" rack compatible) Depth: 270mm / 10.6 inches Height: 45mm / 1.8 inches (1U)		
Operating temperature Storage temperature	0°C to 50°C/32F to 122F 0°C to 70°C/32F to 158F		
Service port	RS232		
Com port 1 (Optional)	Primary monitoring connection with option of: Ethernet – 10Base-T RS232 Modem – PSTN or proprietary leased line mode		
Com port 2 (Optional)	Building management interface RS485 or RS232 interface Modbus ASCII or Modbus RTU protocol		

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m-Senzor **Dual or Single Input**



4V, 8V and 16V m-Senzors also available. Contact PowerShield for full details.

Measurement Module Dual or Single Input

Purpose	Measures monoblock voltage in a string			
Application	VRLA and vented lead acid			
Nominal voltage	2V	6V	12V	
Measurement range	1.6V-2.6V	4.8V-7.8V	9.6V-15.6V	
Typical accuracy ²	±0.25%	±0.2%	±0.2%	
Maximum input voltage	6V	36V	36V	
Power supply current	10mA	3mA	3mA	
Isolation	600V DC			
Power supply	Powered by monoblocks being monitored			
Interface to Sentinel	PowerShield BBUS (maximum 100m/330ft per BBUS port)			

1 Greater distances may be used in a benign electrical environment. 2 Measurement module accuracy is ±0.3% for temperature range of 0°C to 50°C / 32F to 122F.