

## Quality Weld Monitoring... made simple

Weld Monitoring Unit - PC Data Logging System



#### Overview

An intuitive, simple to use, fully featured programmable Weld Monitor Data Logging Unit with PC software and USB interface.

The Weld Data Logger Unit is the ideal extension to the Weld Monitor, facilitating weld by weld data logging unit and analysis.

#### Features

- ✓ Weld Energy Measurement with time stamped PC data logging.
- ✓ Fully programmable process limits, with traffic light status indication.
- ✓ Full software suite with Visual Studio C# source files included.
- Designed for Capacitor Discharge, Linear and HFDC power supplies.
- ✓ Suitable for single or double pulse welding, polarity insensitive.
- Visual and digital warnings on Weld Process Limit violation.

#### Benefits

- Statistical Weld Process Quality Analysis.
- Production throughput measurement and SPC monitoring.
- Statistical Defect Analysis Easy to read and analyse Log file format.
- Detects changes in welding head setup Force, trigger point, bad connections.
- Detects changes in welding electrodes Wear, deformation and position.
- Detects misplaced or missing components when welding Operator error.

#### For a lot more information, please visit www.weld-monitor.com or contact sales@weld-monitor.com



WELDING

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409, 840,800,1253,13,7,L,2,3,4,Tuesday	Mar	16	2021	19:38:40	
819, 840, 800, 1254, 13, 7, G, 2, 3, 4, Tuesday	Mar	16	2021	19:39:20	
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#### **Functional Specifications**

Feature	Parametric	Notes	
Power Requirement	Input Voltage : 5 V Powered from PC USB Port	Male to Male USB A Cable Connection	
Input Voltage Range	0 - 5V: 30K Ohms Input Impedance Connection : 50 Ohm BNC Socket	Isolated Peak Energy Signal from Weld Monitor	
Measurement Resolution	10 bit ADC resolution		
Detection Sensitivity	+/- 0.1% around defined process norm	Programmable Limits via PC Interface	
Software	PC Based : Windows 7 or higher	MS Visual Studio C# Source files included along with generic digital acquisition system SDK	
Data Log File	Default comma delimited, human readable log file		
Data Format	Energy, Weld Limit Settings, Good Weld, High Fault, Low Fault Counts, Weld Monitor Settings, Date Stamp		
PC Visual Indications	Connection, Weld Detect, Process Level, Over Limit Fault, Under Limit Fault, No Fault, Time, Logging		
Dimensions	130mm (L) x 65mm (W) x 35mm (D)		
Operating Conditions	Operating Temperature Range : 0°C to 45°C Humidity Range : Max 95% R.H. Non-condensing		
Warranty	12 Months Parts & Labour	Limited warranty based on fair wear and tear.	

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### **Frequently Asked Questions**

#### **<u>1. What makes this Weld Monitor Data Logging System so economical to buy ?</u></u>**

The Weld Monitor Data Logging System is designed specifically to operate with the Weld Monitor Unit using the optional isolated Energy measurement signal.

The Weld Monitor Unit itself performs the difficult task of accurately capturing the weld energy value thereby dramatically reducing the performance demands required for any data acquisition system, which in turn helps to keep the cost of data acquisition components to a minimum.

#### 2. Is the Weld Data Logging System performance as good as much more expensive units ?

Yes.. In many cases, the Weld Monitor will easily out perform much more expensive digital based products simply by virtue of the patent pending mode of operation. The weld monitor unit incorporates high precision, very low noise electronics which enables the user to define very sensitive process limits.

By accurately measuring the delivered energy into a weld in real time, the unit does not suffer from digitisation and sample speed errors commonly found in other equipment.

#### 3. Can the Weld Monitor Data Logging System be used with other operating systems ?

The Windows<sup>™</sup> based data logging system has been designed specifically as a low cost, fully featured data logging extension accessory for the Weld Monitor unit. The system is supplied with a Windows<sup>™</sup> SDK, executable and full set of of C# source files, suitable for any PC with a USB port, running Windows<sup>™</sup> 7 or higher.

The weld data logging system makes use of the optional isolated energy measurement signal available on the Weld Monitor Unit. This precision signal is available for at least 100mS post weld and hence is readily acquired by practically any data capturing system, including PLCs, factory automation systems and generic data acquisition systems.

For automation, timing signals are also provided to indicate a weld and any associated fault conditions.

#### 4. What happens if I change my mind ?

Bespoke Electronics Limited wants happy customers. Before supplying the Weld Monitor Data Logging Unit, we will endeavour to ensure that the product is right for your application.

If in the unlikely event that you are not happy with your weld monitoring package, then we will provide a full product refund within 30 days of purchase, assuming the equipment supplied is returned prepaid in an "as new" same condition as was supplied.

For more details, please review the Weld Monitor Data Sheet.