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CEMP : multi-process controller & recorder

Measure, monitor and record key parameters of a welding operation.

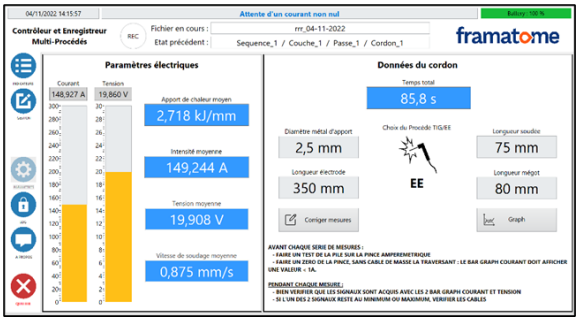


CEMP front view with intensity and voltage measurement cables

Challenge

Provide operators with a portable, reliable, and robust tool to ensure the quality and traceability of welding operations.

- Make the manual or automatic welding operation more reliable and improve traceability.
- Have an equipment easy to implement in the field.
- Implement a synthetic and easy-to-use graphic user interface for inspection staff.



Graphic User Interface

Solution

A semi-automated measuring device that allows an operator to manage multiple devices simultaneously.

- Development of an autonomous system based on tablets integrating the acquisition hardware.
- Automatic welding detection.
- Protection against high priming frequencies.
- Calculation of mean values (arithmetic or TRMS).
- Recording acquired data averages in CSV files, that can be exported to a USB flash drive.

Key Figures

8 systems in use on EPR 2 welding tests.

Customer benefits

Reduction of inspection staff through automation.
Measurements repeatability.
Compact, lightweight and transportable system.
Choice of power source: battery or mains.
Scalable system, to fit customer needs.

Your performance
is **our** everyday **commitment**

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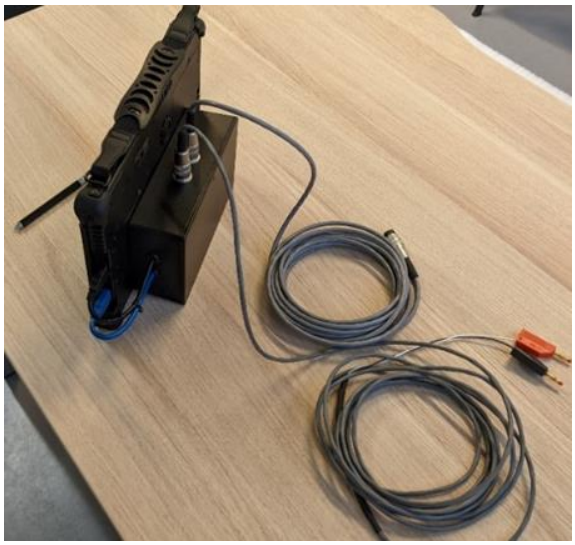
Technical Information

Hardware:
- Rugged Tablet
- Windows 10 Pro operating system
- 24-bit isolated acquisition channels
- Configurable acquisition frequency
- Weight: 1,5 kg
- Size: (L*l*p) 300x200x80mm
- Storage capacity: 80GB
- Battery life: 2 hours
- AC Charger
- SD card reader
- In Option : Robust case for optimum protection during transport

Supported Welding Processes:
- TIG (GTAW)
- EE (MMA)
- Other processes adaptation on request

Possible parameter records:
- Voltage by direct measurement on the welding generator
- Intensity by HALL effect sensor
- Welding time

In Option : Two analog channels available for additional measurements.
- Recorded parameters : average calculation, average welding speed and average heat input
- Measurement chain protected against the high ignition frequencies related to TIG processes using components with high insulating power.
- Sensor choice flexibility



CEMP rear view



Intensity measurement clamp

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Contact : test-labs@framatome.com
www.framatome.com

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