

# ALX III



## ALX III ARC LOGGER

- Fully digital and WiFi-enabled
- Monitor up to four channels simultaneously
- Track and report on complex welding pulses
- Complete WPS programmable from root to cap
- Optional pipeline specific operation and software package
- Supports RFID card user login/identification
- Optional barcode scanner for consumable identification

## Advanced technology for improved weld quality.

The ALX III is a state-of-the-art weld monitoring and datalogging system that uses the latest wireless technology. It is fully digital and WiFi-enabled, making it one of the most advanced systems on the market. Our wireless technology supports network connectivity and TVC Wireless Sensors, giving you the flexibility to monitor welds in any environment.

All units are initially supplied as a single-channel system, but can be upgraded to monitor up to four channels simultaneously. They come with software that allows for remote assistance and software updates, regardless of the equipment's location.

TVC provides operators with a variety of user interfaces that use the latest software advancements to ensure the smooth digital exchange of welding data at all levels.

Our Pulse Reporting software makes it simple to track and report on complex welding pulses. It calculates the peak and background values of the welding current and arc voltage, as well as the welding current frequency and pulse width. Additionally, the software includes real-time pulse energy calculation and display in accordance with ASME IX (2015), EEMUA Publication 158 (Third Edition), and PD ISO/TR 18491:2015.

The ALX III Series is compatible with all popular arc welding processes and is protected from damage caused by the high-frequency/high-voltage start systems used by many TIG welding power sources.

This versatile weld data logger is available in three configurations: a portable unit for use in remote locations, a multi-channel workstation system, and an RS unit with a remote keyboard and monitor. Systems can be easily updated with new options after purchase. This makes it the perfect solution for any welding application, no matter how demanding.

The ALX III Series gives you the confidence that your welds are meeting the highest standards.



### Wireless connectivity: networking

When connected to the TVC Edge Server, the ALX III systems can be used with the TVC WeldGlobe software to remotely log and display welding data, store WPSs, and monitor production. For more information on the network connectivity software for remote viewing of production welding, procedure qualification, welder qualification, and documentation storage, please contact TVC.



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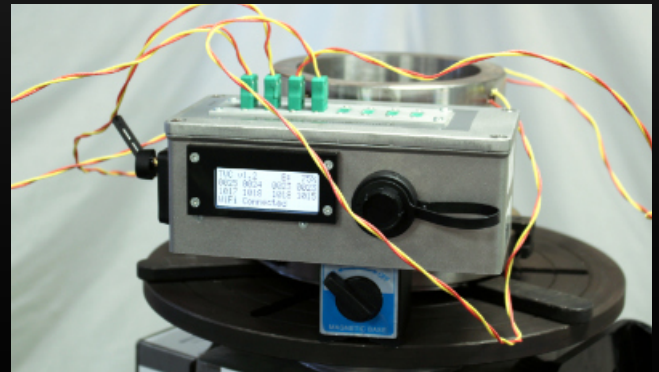


#### Wireless connectivity: transducers and sensors

The ALX III digital wireless sensor network allows battery-powered, application-specific transducers to be connected to ALX III units. Currently, there are specialist wireless sensors and transducers available for temperature, wire feed speed, travel speed, angle and position, gas flow measurement, and weld height.

- Fully digital and WiFi-enabled.
- Can monitor up to four channels simultaneously, ideal for large welding projects.
- Comes with software for remote assistance and software updates.
- Multiple user interfaces that utilise the latest software advancements.
- Can track and report on complex welding pulses.
- Compatible with all popular arc welding processes.
- Available in different configurations, making it the perfect welding data logger for any size project.
- Easily updated to accommodate new options.
- Non-intrusive probes.
- Monitors voltage and current as standard.
- Options for wire feed, gas flow, travel speed, type 'K' contact temperature measurement, purge oxygen level, wireless laser depth (weld height) measurement, wireless multi-channel temperature measurement, wireless travel speed and wireless wire feed tachometers.
- Complete WPS programmable from root to cap for quality assurance and compliance purposes.
- TIG High Frequency protected.
- Network connection and USB ports.
- Wireless connectivity.
- Optional cladding, weld overlay, automatic, pipeline, or robotic specific operation and software packages can optimise the system for specific welding applications.
- Auxiliary Inputs configured to customer specifications.
- RFID Card user login/identification can be used to track the welding activities of different users, aiding quality assurance and compliance purposes.
- Bar code scanners for consumable identification can be used to automatically identify consumables, helping to improve welding efficiency.

Whichever configuration you choose, you can be certain the the ALX III Series welding data loggers will improve the quality, safety, and productivity of your welding operations.



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### ALX III Portable

The ALX III Portable welding data logger is a powerful, portable, and easy-to-use solution for businesses of all sizes. It can be used to monitor all types of arc welding, whether in the workshop or in the field.

The system is user-friendly and flexible, allowing you to monitor all the main arc welding parameters. The standard software package includes voltage, current, wire feed speed, travel speed, gas flow, temperature, purge oxygen levels, hot wire current and voltage parameters. It produces average figures for all parameters and automatically calculates heat input and energy.

The ALX III Portable can monitor one welding power source by default, but can be upgraded to monitor up to four welding power sources simultaneously. This makes it ideal for field measurement of Twin Torch Twin Bug Pipeline Welding systems or for monitoring GTAW equipment with Hot Wire facility.

An on-board printer and reporting software allows welding and quality control engineers to produce hard copy prints of welding reports and specifications at the welding location. This helps to identify and correct welding defects immediately, improving the quality of welds and reducing the risk of costly failures.

### ALX III RS

The ALX III RS is a versatile and durable welding data logger that is available as a single or dual channel system. It is ideal for demanding applications such as monitoring welding procedures, qualifying welders, and precision welding of fine components and exotic materials.

All system components are housed in a single, rugged case, and the probes and accessories are contained in a probe carry bag.

### ALX III WS

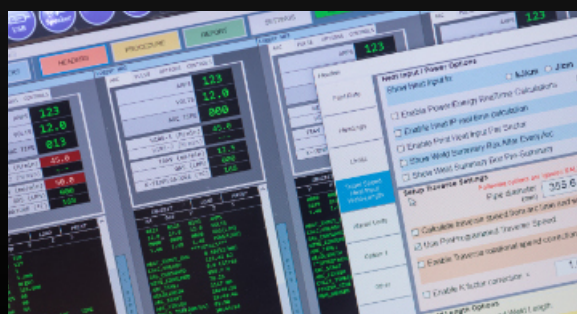
The ALX III Workstation is a versatile and cost-effective welding data logger that is ideal for the oil and gas pipeline industry. It is available in single, two, or four channel configurations, and can be customized to each channel with a variety of optional combinations.

Durable and hard-working, it is designed to withstand demanding conditions. It is equally at home monitoring welding procedures, qualifying welders, or in a laboratory setting for precision welding of fine components and exotic materials.

The ALX III Workstation comes with voltage and current measurement on all channels as standard. It also includes a variety of optional features, such as wire feed speed, travel speed, gas flow, temperature, purge oxygen levels, hot wire current and voltage parameters, and pulse monitoring software.

Workstations can be networked together so that a single master station can be created to correlate all welding data into a single report. This makes it easy to track and manage welding procedures, and to identify and correct welding defects.

The system is a powerful and versatile welding data logger that is ideal for a variety of applications. It is durable, reliable, and easy to use, making it a valuable asset for any welding operation.



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## General Specifications

Applications	MMA/MIG/TIG (AC/DC)/SMAW/FCAW/SAW
Techniques	Manual/Semi-Auto/Fully-Auto/Robotic
Memory	240Gb
Operating Temperature	0 - 50°C

## ALX III Portable

Connectivity	3 x USB, 1 x Ethernet, 1 x 02.11a/b/g/n WiFi
Screen	12.1in Full Colour Touchscreen TFT
Keyboard/Mouse	IP65 Rated Full Size 65-Key with Trackball Mouse
Printer	40 Character Internal Dot Matrix, User Selected Print Rate
Dimensions	245mm (W) x 220mm (H) x 330mm (D)
Weight	14.5Kg
Battery Type	12V Sealed Lead Acid Rechargeable
Battery Charger	External 90 - 260V AC, Auto Selection, 3 hour Recharge

## ALX III RS

Connectivity	3 x USB, 1 x Ethernet, 1 x 802.11a/b/g/n WiFi
Screen	15.1in Full Colour LCD Touchscreen
Keyboard/Mouse	Full Size Industrial Keyboard with In-built Trackball Mouse
Printer	40 Character Internal Dot Matrix, User Selected Print Rate
Dimensions	600mm (W) x 680mm (H) x 330mm (D)
Weight	41Kg (inc. probes and leads)
Battery Type	12V Sealed Lead Acid Rechargeable
Battery Charger	External 90 - 260V AC, Auto Selection, 3 hour Recharge

## ALX III Workstation

Connectivity	3 x USB, 2 x Ethernet, 1 x 802.11a/b/g/n WiFi
Screen	17in Full Colour TFT Touchscreen
Keyboard/Mouse	IP65 Rated Full Size 65-Key with Trackball Mouse
Printer	Up to 4 x 40 Character Internal Dot Matrix
Dimensions	455mm (W) x 380mm (H) x 450mm (D)
Weight	18Kg
Power	Mains Powered 90 - 260V AC Input with Internal 12V Sealed Lead Acid Rechargeable Battery Backup

## Monitored Parameters

Average Current	15 - 1999A +/- 2% FSD +/- 1 Digit
Average Voltage	0 - 99.9V +/- 1% of FSD +/- 1 Digit
Arc Energy	1 - 9999kJ +/- 2% FSD +/- 1 Digit
Arc Time	0.3 - 9999secs +/- 0.1% FSD +/- 1 Digit
Heat Input	1 - 9999J/mm +/- 2.5% FSD +/- 1 Digit
Wire Speed	0 - 30.0m/min +/- 2.5% +/- 1 Digit
Wire Consumed	0.1 - 9999m/min +/- 2.5% FSD +/- 1 Digit
Traverse Speed	0.1 - 999cm/min +/- 1.0% FSD +/- 1 Digit
Temperature	0 - 1000°C +/- 1% of RDG +/- 1 Digit
Gas Flow	1 - 120L/min +/- 5.0% FSD +/- 1 Digit
Oxygen Level	1 - 50,000ppm (0.0001 - 5%) +/- 0.0001% FSD +/- 1 Digit
Weld Depth (Laser)	0.1 - 75mm +/- 0.1 FSD +/- 1 Digit

Full calibration certification provided, traceable to The National Physical Laboratory (NPL), UK.  
UKAS 17025 calibration available on request.

The Validation Centre (TVC) Limited reserves the right to alter or change product specifications without prior notice.  
Images are representative of full optional additions installed; delivered equipment and software may vary depending on options purchased.



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