

# ALX II

ARC WELDING DATA-LOGGER  
AND MONITORING SYSTEM



## ALX II Portable

Applications	MMA/MIG/TIG(AC/DC) Subarc/Fluxcore
Techniques	Manual/Semi or Fully - Automatic/Robotic
Dimensions	Width - 42.5cm, Height - 22 cm, Depth - 33 cm
Weight	14.5 kg
Battery	NiMhd - Re-Chargeable
Battery Charger	External 90 to 260 vac - 3 hour Re-charge
Temp Range	0 to 45 °C
Printer	40 Character Internal Dot Matrix - Print rates user selectable
Screen	12" Full Colour TFT
Keyboard/Mouse	Full size 65 Key with trackball - IP65 sealed
Memory	160Gb
Connectivity	2 x USB and 1 x Ethernet

## ALX II Workstation

Applications	MMA/MIG/TIG(AC/DC) Subarc/Fluxcore
Techniques	Manual/Semi or Fully - Automatic/Robotic
Dimensions	Width - 45.5 cm, Height - 38 cm, Depth - 45 cm
Weight	24kg
Power	Mains powered 90 to 260vac input with internal Lead Acid re-chargeable battery back up
Temp Range	0 to 45 °C
Printer	Upto 4 x 40 Character external Dot Matrix - Print rates user selectable
Screen	15" Full Colour TFT
Keyboard/Mouse	USB External Full size 89 Key with mousepad
Memory	320Gb
Connectivity	4 x USB and 2 x Ethernet

## ALX II Portable and Workstation Monitored Parameters:

Parameter	Accuracy
Average Current	15-1999A +/- 2% FSD
Average Voltage	0-99.9V +/- 1% FSD
Arc Energy	1-9999kJ +/- 2% FSD
Arc Time	0.3 - 9999 secs +/- 0.1% FSD
Heat Input	1-9999J/mm +/- 2% FSD
Wire Speed	0-20.0m/min +/- 2.5% FSD
Wire Consumed	0-999m +/- 2.5% FSD
Traverse Speed	0-999cm/min +/- 1.0% FSD
Temperature	0-1000°C +/- 1% of reading
Gas Flow	0-120 lt/min +/- 5.0% FSD

2 Auxillary inputs are available and the ALX II Workstation can monitor upto 4 x sets of inputs  
The Validation Centre (TVC) Ltd reserve the right to alter or change product specification without prior notice.



The Validation Centre (TVC) Ltd

Tel: +44 (0) 1493 443800  
Fax: +44 (0) 1493 443900  
Email: sales@tvcalx.co.uk

Unit 9, Sinclair Court  
Faraday Road  
Gapton Hall Industrial Estate  
Great Yarmouth  
Norfolk, NR31 0NH



The Validation Centre (TVC) Ltd

Available as a portable unit for operation in remote locations, or as a multi-channel workstation, the ALX II can fulfil all welding data logging requirements. The advanced software and electronics on the ALX II also allows the monitoring, capture and analysis of pulsed welding processes.

In standard operation the ALX II is capable of monitoring all the main welding parameters, Voltage, Current, Wire Feed Speed, Travel Speed, Gas Flow and Temperature, and will produce reports detailing the average values for all parameters, plus heat input calculations and total consumables used.

Once in pulse mode the ALX II will give instantaneous values of peak and background levels for voltage and current as well as producing a graphical display for detailed pulse analysis.

The portable system can deliver up to 3 hours of monitoring time from each of the rechargeable external battery packs.

The mains powered ALX II workstation can offer continuous monitoring in a production environment for up to 4 welding heads from a single unit.

## ALX II Portable

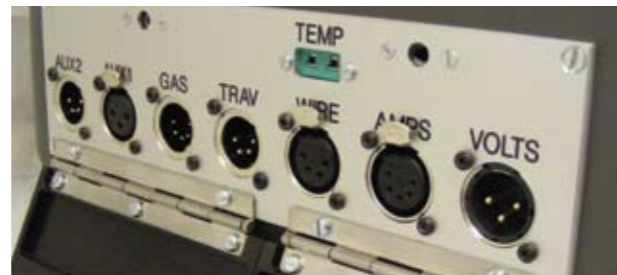
The most advanced welding data logging system available. The portable ALX II is a "go anywhere" battery powered unit capable of monitoring all types of arc welding in the workshop or remote location. Each of the high capacity rechargeable NiMH battery packs, power the ALX II for up to 3 hours of weld monitoring.

Facilities to monitor all the main arc welding parameters makes the portable ALX II the most user friendly and versatile welding data logger and reporting system available today.

Using the standard software package, the unit will monitor voltage, current, wire feed speed, travel speed, gas flow and temperature, producing average figures for all parameters plus automatic heat input and energy calculations.

Switch to the optional pulse mode and it has the capacity to monitor complex welding waveforms with absolute accuracy producing high quality reports plus the analysis facility to measure peak and background values of voltage and current.

The onboard printer produces a hard copy print right at the welding location which combined



with the unit's reporting software package, gives the welding engineer / QC engineer the facility to produce instant weld reports and specifications, right at the point of welding.

The ALX II can be used on all popular arc welding processes and is protected against damage from the high frequency / high voltage start systems used on many tig welding power sources.

The ALX II and all the accessories are supplied in a single rugged protection case, which can be shipped all over the world by road, sea or air transportation.

- Battery or mains powered.
- Up to 3 Hours from a single NiMH battery pack
- Non intrusive probes.
- Monitors voltage and current as standard.
- Options for wire feed, gas flow, travel speed and temperature measurement.
- Optional pulse monitoring and analysis software package.
- Complete WPS programmable from root to cap
- TIG H.F. protected
- "Intelligent" battery charger.
- Network connection and USB ports

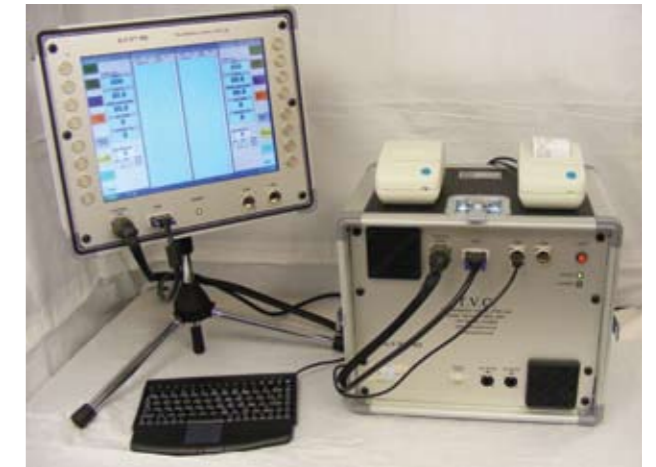
## ALX II Workstation

Available as a two channel or four channel unit the ALX II Workstation is fast becoming the industry workhorse for the international oil and gas pipeline industry. This unit has all the facilities of the portable ALX II but x4, allowing one unit to monitor up to four welding heads from a single location. It is supplied with voltage and current measurement on all channels as standard allowing the customisation of the unit by adding whatever combination of options are required to each channel, producing the most versatile and cost effective welding data logging system available.

The ALX II Workstation is a rugged hard working unit designed to withstand the tough conditions of the working environment but is equally at home monitoring welding procedures, qualifying welders or in a laboratory situation where precision welding of fine components and exotic materials requires the most accurate data logging system.

In a pipeline production situation the ALX II workstation leaves its rivals way behind. The unit is compact, easily moved by one man to allow fast set up and breakdown, thanks to the high quality none intrusive probe connections. Specific pipeline software allows a complete welding procedure from root to cap to be pre-programmed into the system so that a single Workstation can monitor the whole weld or can be used to monitor preset weld passes in different stations. ALX II Workstations can be networked together so that a single master station can be created where all the welding data can be correlated into a single report.

The ALX II Workstation has the powerful pulse monitoring software option available, which can be fitted to some or all channels in a single unit. Monitoring and reporting of complex welding pulses presents no problems to this model which has the speed and processing capacity to produce instant reports of each weld pass no matter how complex the waveform. Special software packages are available which enable the full integration of several ALX II Workstations to produce units of 8 channels and above.



- Mains powered 90 – 220 v ac 50/60 Hz.
- Twin channel as standard with option to add a further 2 channels
- Network capability to connect further workstations (2 or 4 channel)
- Non intrusive probes.
- Monitors voltage and current as standard.
- Options for wire feed, gas flow, travel speed and temperature measurement.
- Optional pulse monitoring and analysis software package.
- Complete WPS programmable from root to cap
- TIG H.F. protected
- Network connection and USB ports
- Pipeline specific operation and software packages.
- Aux. Inputs configured to customer specification.

