

# Mini Arc Logger - MAL III

The all-new Mini Arc Logger (MAL III) from TVC is one of the world's most cost-effective welding monitors. Supplied in a rugged aluminium case, this go-anywhere unit weighs less than 9kg and set-up takes minutes, minimizing onsite downtime. The field proven sensor probes and IP rated controls mean the MAL III can be used in harsh conditions with the minimum of daily maintenance. An optional waterproof plastic hard case gives further protection for the unit and enables easy storage and shipment.

With probes for monitoring welding current up to 2000 amps and voltage up to 100 volts, the unit handles all major arc welding processes including FCAW, GMAW, SMAW, SAW and AC/DC GTAW with protection against HF Arc Starting.

Its 5.7-inch TFT screen provides a clear view of all monitored welding parameters and the sealed battery allows up to eight hours of monitoring time between charge cycles.

Welding data is recorded on a dedicated 4GB removable memory stick allowing integration of stored data into to Excel report spread sheet reports, on an external PC. The reporting software is supplied with each unit along with the manual in electronic format on the USB media, and there is



also an optional flexible QWERTY keyboard which enables the heading data input facility and easier adjustment of other MAL III settings.

The standard base unit will measure and record Welding Current, Arc Voltage and Arc Time. The unit will also calculate and record Arc Energy and Heat Input.

Additional options for the MAL III include transducers for the measurement of Wire Feed Speed and calculation of total Wire Payoff, Welding Travel Speed for automated processes, Gas Flow and consumption together with a Type K Thermocouple for measuring Pre-Heat and Inter-Pass Temperatures.

An additional Auxiliary input is available which can be factory configured for use with other transducers such as O2 Sensors for recording back purging during the weld, please contact TVC for further information.

The unit is supplied with a 90-240V AC battery charger and has an optional external, portable, hard copy printer for printing weld parameter data during or after the weld process, providing the MAL III with full onsite traceability.

2016-03-14   15:09		Inhibit	
Start	Amps	Volts	Arc Time
	0129	00.0	0000
Weld Length Gas Flow	Weldlength	Traverse	Wire
	00002	---	00.0
	Run No	Temp TC	AUX
	0001	0307	---
Temp Print	ARC	ARC	TRAV
	AMPS	VOLTS	CH/MIN
		GAS	TIME
		LPH	SECS
Reset	Print Rate 1 sec		Menu

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### General Unit

Applications	MMA/MIG/TIG (AC/DC)/SMAW/FCAW/SAW
Max. Dimension	355 x 255 x 188 mm
Screen	5.7-inch Full-Colour TFT
Memory	4GB Removable Flash Drive
Battery Type	Sealed Lead-Acid Rechargeable
Temperature Range	0 - 50°C
Techniques	Manual/Semi-Auto/Fully-Auto/Robotic
Weight	9Kg (Including Probes & Charger)
Battery Charger	External 90-240V AC (3-4 Hour Recharge)
Printer/Rate	External Dot-Matrix/2 x 1-60 secs User Selectable Print Rates

### Standard Monitored Parameters

Average Current	15 - 1999A $\pm$ 2% fsd $\pm$ 1 Digit
Average Voltage	0 - 99.9V $\pm$ 1% fsd $\pm$ 1 Digit

### Monitored Parameters with Optional Transducers

Average Wire Speed	0 - 30.0m/min $\pm$ 2.5% fsd $\pm$ 1 Digit
Average Travel Speed	0 - 999cm/min $\pm$ 1% fsd $\pm$ 1 Digit
Average Gas Flow	0 - 120lt/min $\pm$ 5% fsd $\pm$ 1 Digit
Temperature	10 - 999°C $\pm$ 2.5% of reading $\pm$ 1 Digit
Arc Time	0.3 - 9999 secs $\pm$ 0.1% $\pm$ 1 Digit

### Calculated Parameters

Arc Energy	1 - 9999 kJ $\pm$ 2% fsd $\pm$ 1 Digit
Heat Input	1 - 9999 J/mm $\pm$ 2% fsd $\pm$ 1 Digit
Wire Consumed	0 - 9999 m $\pm$ 2.5% fsd $\pm$ 1 Digit
Gas Consumed	0 - 9999 Lt

### User Entered Data Parameters

Gas Flow	1 - 99.9 Lt/min
Weld Length	0 - 9999 mm

*Auxiliary input can be factory configured 0 - 5V DC, 0 - 10V DC, 0-20mA, 4 - 20mA for O<sub>2</sub>, CO<sub>2</sub> and other equipment.*

*Please contact TVC for further information.*

The Validation Centre (TVC) Limited reserves the right to alter or change product specification without prior notice.

# TVC

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