



ELECTROFUSION CONTROL

Hy-Ram offer a comprehensive range of Electrofusion control units to suit most electrofusion fittings and applications. An array of options, features and levels of sophistication are available and all units are available for either purchase or hire. A full repair and calibration service is also available on most types of equipment.



Electrofusion Control Units

Electrofusion Boxes - ACT Range



Datafuse Act range of Electrofusion Boxes

Datafuse ACT1, ACT2, ACT3 - 40V Electrofusion Control Units

The ACT range is designed to weld large diameter 40V PE pressure fittings up to 630mm diameter. The units have been tailored to the construction industry and are built in a strong plastic case, with a steel protective frame and have a durable user interface. ACT units are fully approved to the UK National Grid 'Gas Industry Standard' ECE 1. The ACT 2 and ACT3 have full data logging capabilities and the ACT3 has automatic bar code welding. Optional wireless communications allowing email and SMS text is also available.

Datafuse ACT4 - 80V Electrofusion Control Unit

The ACT4 is designed to weld large diameter 80V PE pressure fittings up to 630mm diameter in Manual mode with full data logging. The ACT4 is also approved to weld Radius Easigrip fittings with multi-cycle times. Approved to the UK National Grid 'Gas Industry Standard' ECE 1.

Datafuse ACT6 - 40/80 (Mini13) - 40V & 80V Electrofusion Unit

The ACT6 is designed to weld large diameter 40V and 80V PE pressure fittings up to 630mm diameter in Manual mode with full data logging. It's approved to weld Radius Easigrip fittings with multi-cycle times. ACT welding units are approved to the UK National Grid 'Gas Industry Standard' ECE 1.

ACT1, ACT2, ACT3, 40V Electrofusion Control Units

SPECIFICATIONS	ACT1 - 40V	ACT2 - 40V	ACT3 - 40V	ACT4 - 80V	ACT6 - 40v & 80V (Mini 13)
Operating Modes	Manual, Barcode			Manual, Easigrip	Manual, EasiGrip, Barcode
Controlled Welding Voltage	39.5V ac (8 to 48V)			79V	39.5 V (8 to 48 V) & 79 V
Welding Current	1-75 A (100 A Peak)			1-65A (100 A peak)	1-65A (100 A peak)
Welding Time	1-6000 seconds			1-6000 seconds	1-6000 seconds
Supply Voltage	115 V \pm 15% (40-60 Hz) 230 V \pm 15% (40-60 Hz)			115 V \pm 15% (40-60 Hz)	115 V \pm 15% (40-60 Hz)
Supply Current	1-32 A (115 V) / 1-15 A (230 V)			1-63 A (115 V)	1-63 A (115 V)
Supply Power	4000 W			7500 W	7500 W
Weight	28g			20kg	13kg
Size	38 x 38 x 40cm			38 x 38 x 40cm	39 x 36 x 25cm
Operating Temperature	-15°C to +15°C			-15°C to +15°C	-15°C to +15°C
Programmable Maintenance	✓	✓	✓	✓	✓
Waterproof & Dustproof to IP65	✓	✓	✓	✓	✓
Backlit Four Line Display	✓	✓	✓	✓	✓
Alphanumeric Keypad	✓	✓	✓	✓	✓
Multi-lingual Intuitive Menu	✓	✓	✓	✓	✓
Configurable Operation		✓	✓	✓	✓
Ohms, Volts, Amps Meters Built In	✓	✓	✓	✓	✓
Fusion Time & Energy Displayed	✓	✓	✓	✓	✓
Manual Entry of Fusion Time	✓	✓	✓	✓	✓
Bar Code Entry of Fusion Time			✓		
Temperature Compensation			✓		
Bar Code Pen			✓		
Bar Code Scanner			✓		
Data Log Memory (2048 Welds)		✓	✓	✓	✓
Data Download PC Software		✓		✓	✓
Software Upgrade by USB Memory	✓	✓	✓	✓	✓
Data Download PC Software		✓	✓	✓	✓
Read Traceability Bar Codes			✓		
Operator Welding Pass		✓	✓	✓	✓
Wireless Email & SMS Text		OPT	OPT	OPT	OPT
GPS Location Logging		OPT	OPT	OPT	OPT

Electrofusion Boxes - ATS Range



ATS 250



ATS 500



ATS:COMBI

ATS180, ATS250 and ATS500 - 40V Electrofusion Control Units

The ATS180 series welding unit is designed to weld 40V PE pressure fittings up to 180mm diameter. The unit has automatic bar code operation. It has full data logging capabilities downloaded via USB. The ATS250 series welding unit is designed to weld 40V PE pressure fittings up to 400mm diameter. The Basic and Extra models have fully automatic bar code welding and the Extra has full data logging facilities downloaded via USB. The ATS500 series welding unit is designed to weld 40V PE pressure fittings up to 630mm diameter. The unit has automatic bar code operation and data logging capabilities downloaded via USB. All three units comply with the ISO International Standard for welding equipment. The ATS range is available in three different formats, frame mounted, enclosed in a durable bag/carry case or as a COMBI unit with a generator.

ATS:COMBI – Combined Electrofusion Control Unit and Generator

The COMBI can weld 40V PE fittings up to 180mm diameter in both manual and automatic bar code mode. It combines a generator and an electrofusion welder in one easily portable unit. It has been designed specifically for service pipe installation and the house connections market where compact and convenient equipment is often preferred. The unit has a 110V, 16A power outlet capable of powering auxiliary equipment when the electrofusion welder is not working.

ATS 180, ATS 250, ATS 500, ATS:COMBI, 40V Electrofusion Control Units

SPECIFICATIONS	ATS 180	ATS 250			ATS 500	ATS:COMBI
Model	Bag / Frame Version	Manual	Basic	Extra		
Operating Modes	Manual, Barcode	Manual	Auto	Auto	Manual, Barcode	Manual, Barcode
Controlled Welding Voltage	39.5V ac (8 to 48V)	39.5V ac (8 to 48V)			39.5V ac (8 to 48V ac)	39.5V ac (8 to 48V ac)
Welding Current	1-50A	1-60A			1-75 A (100 A Peak)	1-50A
Welding Time	1-1,500 Seconds	1-3,000 Seconds			1-6,000 Seconds	1-1500 seconds
Supply Voltage	115 V \pm 15% (40-60 Hz) 230 V \pm 15% (40-60 Hz)	115 V \pm 15% (40-60 Hz) 230 V \pm 15% (40-60 Hz)			115 V \pm 15% (40-60 Hz) 230 V \pm 15% (40-60 Hz)	115 V \pm 15% (40-60 Hz)
Supply Current	1-25 A (115 V)/1-12 A (230 V)	1-28 A (115 V)/1-14 A (230 V)			1-32 A (115 V)/1-15 A (230 V)	1-16 A
Supply Power	3000 W	3,500 W			4000 W	2800 W
Weight	11kg (Bag) 12kg (Frame)	20kg			20kg	50kg
Size	30 x 20 x 26 / 34cm	22 x 26 x 45cm			25 x 32 x 37cm	60 x 45 x 40cm
Operating Temperature	-15°C to +15°C	-15°C to +15°C			-15°C to +15°C	-15°C to +15°C
Programmable Maintenance	✓	✓	✓	✓	✓	✓
Waterproof & Dustproof to IP65	✓	✓	✓	✓	✓	✓
Backlit Four Line Display	✓	✓	✓	✓	✓	
Alphanumeric Keypad	✓				✓	✓
Multi-lingual Intuitive Menu	✓	✓	✓	✓	✓	✓
Configurable Operation	✓		✓	✓	✓	✓
Ohms, Volts, Amps Meters Built In	✓	✓	✓	✓	✓	✓
Fusion Time & Energy Displayed	✓	✓	✓	✓	✓	✓
Manual Entry of Fusion Time	✓	✓	✓	✓	✓	✓
Bar Code Entry of Fusion Time	✓		✓	✓	✓	✓
Temperature Compensation	✓		✓	✓	✓	✓
Bar Code Pen			OPT	OPT	OPT	
Bar Code Scanner	✓		✓	✓	✓	✓
Data Log Memory (2048 Welds)	✓			✓	✓	✓
Data Download on USB Memory	✓			✓	✓	✓
Software Upgrade by USB Memory	✓	✓	✓	✓	✓	✓
Data Download PC Software	✓			✓	✓	✓
Read Traceability Bar Codes	✓		✓	✓	✓	✓
Operator Welding Pass	✓		✓	✓	✓	✓
Wireless Email & SMS Text	OPT			OPT	OPT	OPT
GPS Location Logging	OPT			OPT	OPT	OPT
Control Point Ready	✓					✓
Duty cycle at 50 amps (in a 3 hour welding period)	33% 200 sec on / 400 sec off					33% 200 sec on / 400 sec off



Electrofusion Boxes - PF-S Range



Tiny Data M / MF (USB)



Digimatic Control Box

The Tiny Data M (USB) and Tiny Data MF (USB) Electrofusion Control Units

A compact yet robust option for electrofusion welding.

The units provide input of welding parameters by barcode, manual input of the barcode digits or manual input of welding voltage and time. In the case of the Data MF model; the Smartfuse option can be used whereby the controller will automatically determine the weld parameters by auto-recognition of the fitting resistance.

The controllers will weld continuously without limitation for fitting diameters between 20 – 355mm. For larger diameters, longer cool down periods must be adhered to between welds – time dependent on individual fitting power requirements.

Both units are supplied with an accessory bag, a transport box, a 2GB USB memory stick and an instruction manual.

The Digimatic Data (USB)

A proven and reliable option for electrofusion welding.

The unit provides input of welding parameters by manual input of the barcode digits, by manual input of welding voltage and time or via the Smartfuse option whereby the controller will automatically determine the weld parameters by auto-recognition of the fitting resistance.

The controller will weld continuously without limitation for fitting diameters between 20 – 355mm. For larger diameters, longer cool down periods must be adhered to between welds – time dependent on individual fitting power requirements.

Both units are supplied with an accessory bag, a transport box, a 2GB USB memory stick and an instruction manual.

Model	Digimatic Data (110 V/USB)	Tiny Data M (USB) (110V optional)	Tiny Data MF (USB) (110V optional)
Product code	116-000075	TBC	TBC
Interface	USB (USB memory stick)	USB (USB memory stick)	USB (USB memory stick)
Transformer	Small (3600 VA)	Large (4800 VA)	Small (3600 VA)
Input voltage	110 V AC (90–150 V)	230 V AC (190–300 V)	230 V AC (190–300 V)
Input frequency	50/60 Hz (40–70 Hz)	50/60 Hz (40–70 Hz)	50/60 Hz (40–70 Hz)
Output voltage	8 to 48 V AC	8 to 48 V AC	8 to 48 V AC
SmartFuse	Yes	No	Yes
Manual input of welding parameters	Yes (8–48 V, 0–9999 s)	Yes (8–48 V, 0–9999 s)	Yes (8–48 V, 0–9999 s)
Barcode input	No	Yes, reading pen	Yes, reading pen
Dimension range (Diameter)*	20–630 mm	20–800 mm	20–630 mm
Data recording	Yes (approx. 250 reports)	Yes (approx. 1000 reports)	Yes (approx. 1000 reports)
Welding terminals	4.7 mm	4.0 mm	4.0 mm
Welding cable length	5 m	4 m	4 m
Welding cable mounting	Fixed	Fixed	Fixed
Product weight incl cable	18.0 kg	17.5 kg	15.8 kg
Product dimensions	450x325x380 mm	325x275x290 mm	325x275x290 mm
Transport weight	22 kg	23 kg	21.3 kg
Packaging dimensions	480x445x380 mm	390x320x340 mm	390x320x340 mm

Electrofusion Box Accessories



Lead End Adaptors - Digimatic

Product code	Description	
116-000038	EF Box Adaptor 4.0mm - 4.7mm GF Angle	
116-000067	Wasp barcode reading wand with USB connector.	
116-000068	Opticon barcode reading scanner with USB connector.	



ControlPoint Asset Integrity System



Control Point's Remote Inspection System



Control Point Compatible with iOS, Windows Mobile & Android

Quality Controlled Electrofusion Welding

ControlPoint's ground breaking asset integrity package can now be fully integrated into Hy-Ram's market leading electrofusion control units. The integrated Bluetooth module works seamlessly with any smartphone, delivering fast, efficient data transmission, multi-photo capability and GPS location tagging. Compatible with iOS, Windows Mobile and Android, the ControlPoint app transmits joint data from the electrofusion unit via 3G/4G to ControlPoint's remote inspection team, and the JointManager website.

The benefits:

- Improved jointing quality
- Reduced leakage
- Fewer costly repairs
- Training requirements identified
- Enhanced client and public confidence
- Fast, efficient, independent verification of every weld

How it works...

The ControlPoint system comprises of an easily downloadable app which works in conjunction with the integrated Bluetooth hardware in the electrofusion control unit. This Bluetooth device can be retro-fitted to an existing electrofusion controller or installed during manufacture. Using Bluetooth connectivity, the electrofusion control unit is paired with the smartphone device through the app. Operators are guided through the process on both the control box display and the app. The weld data and GPS tag together with at least one photograph of the welded joint / set-up are recorded and transmitted via 3G / 4G to ControlPoint.

Remote Inspection System...

ControlPoint technicians then provide real time monitoring of all joint images sent via the app; potential issues are recorded on the system which generates alerts via SMS and/or email for site supervisors to investigate and action. Using this systems allows network operators and their contractors to make well informed judgements on the quality of joints before they are buried. Joint data and inspection analysis is stored in ControlPoint's JointManager system and can be quickly searched and analysed using the JointManager website.

