

## ■ Universal Electro Fusion Control Boxes



# The new FRANK Automatic Universal Electro Fusion Control Boxes - universal, powerful and most suitable for building sites

The ever increasing demands made by users in the gas and water utilities industry and the given safety regulations lead to continuous further development of the products employed.

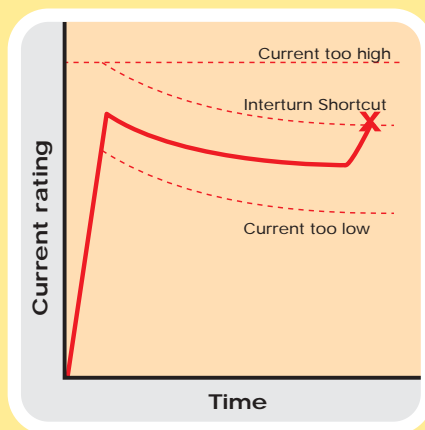


We are able to make a considerable contribution to greater safety with our new "polymatic" Electro Fusion Sets.

## Process monitoring

An integrated process monitoring system controls the fusion sequence based on a current curve. If a determined tolerance limit is exceeded (Interturn Shortcut or Current too High) or the tolerance limit is fallen short of (Current too Low) the "polymatic" cuts out and displays the appropriate error message.

In this way material overheating and thus the resulting joint defect can be avoided.



## Display

Reading errors are a thing of the past. Perfect reading is ensured by the four-line background illuminated display with 8 mm high characters. Possible errors, such as Voltage



Error, for example, are shown in clear text and supported by an acoustic warning signal.

## Temperature measurement on welding cable

The ambient temperature has a decisive influence on the welding time. Since Control Boxes generally stand on pipe trenches it is essential that the ambient temperature is measured as close as possible to the welding zone.



Today automatic data recording is to be seen as a standard procedure. With the "polymatic plus" we provide the user with additional information in the fusion protocol. On to the optional recording of pipe and fitting data (traceability), it is possible to build up a complete network

documentation.  
The data can be printed out directly on a printer or displayed on a PC. Special software is available for further processing and administration (see page 6).

### **Design**

"Form follows function"  
- due to this principle the "polymatic plus" combines maximum functionality



with an unmistakable appearance.  
The metal and plastic components have been combined with each other to ensure that the unit will stand up to rough building site conditions despite the low weight of just 20 kg. The sophisticated design enables the "polymatic" sets to be set up in different ways. However, display read-off is ensured at any time.

### **Service and maintenance**

The perfect function of Electro Fusion Sets depends to the greatest extent on regular inspection and servicing. The "polymatic plus" automatically shows the user a due maintenance by means of a clear text message in the display. In this way failure to keep inspection intervals can be avoided. High operating safety is achieved by the software calibration carried out during maintenance and, as a result, maintenance costs are reduced. A competent team is available to you for maintenance and servicing work.



# " polymatic plus"



## The new Electro Fusion Control Box

- For Electro Fusion Components up to 48 V in PEHD and PP
- Process data input through barcode, Fusamatic®-mode or by hand
- Process monitoring system
- Adjustable display contrast
- Menu-guided operation
- Comprehensive data recording functions
- Memory capacity for approx. 1200 welding procedures
- Accessories for data administration available
- Sophisticated design
- Robust and powerful with yet only approx. 20 kg in weight

## Input, storage and data transfer

Apart from the process parameters the following data can be also entered and protocolled:

- Commission number
- Welder data
- Weather conditions and protective measures
- Welding supervisor
- Inventory number
- Weld number

The following data is protocolled as standard:

- Date and time
- Record Number
- Manufacturer, type and diameter of the Electro Fusion Component
- Volt, ampere, electric energy (kJ), actual and nominal welding time
- Error messages with volt/ampere profile (each 10 values)
- Total number of joints
- Welding mode
- Control Box Serial
- Number, equipment status
- Service date, working hours

Optional to be read and recorded:

- Traceability code of fitting
- Traceability code of pipe
- Pipe length
- Trench depth

Data output (complete memory or by commission number) is through a serial interface directly to a printer, computer or through the "memomatic" transfer box.



Impact proof plastic portable frame in signal colour

Start and P

Sim through (p





# "polymatic"



signal horn

Powerswitch on/off

Four line display, illuminated background

Handle for carrying with one hand

Ambient Temperature Sensor on Welding Cable

Reset

Reading pen or Scanner

Simple operation with cursor keys (polymatic plus)

For the user who needs no data recording but does not wish to do without other technical and optical advantages.

- Universal use up to 48 V
- Process Monitoring System
- Entry of process data through Barcode or Fusamatic®-mode
- Simple operating guidance
- Error Messages in clear text

## Technical data "polymatic plus" and "polymatic"

Input voltage	(AC) 230 V (190-300 V)
Input frequency/current	50 Hz (40-70 Hz)/16 A
Output voltage/current	10-48 V/16 A
Rating	2800 W (3500 VA) 80 % pure current duration
Temperature range	-10°C up to 50°C
Equipment safety	CE, IP 54
Current cable	4.5 m
Welding cable	5 m
Display	Background illuminated, alpha numerical, 4 lines each 20 characters
Dimensions	440 x 380 x 320 (l x w x h)
Weight	approx. 20 kg

## Monitoring Functions

Input	Voltage/Current/Frequency
Output	Voltage/Resistance/Contact Welding Time/Current Profile* System Check/Ambient Temperature/Service Date*
Error message	in clear text in display with continuous warning signal

\*only on plus

# Data Processing Accessories

## 1 "datamatic" Software

- PC software for Windows 95/98 and Windows NT 4.0
- Comfortable window operation and display of selected data sets
- Data transfer from "polymatic plus" and "memomatic"
- Protocol saving
- Data transfer to EXCEL

## 2 "datamatic plus" Software

- as "datamatic" but plus:
- Sophisticated sorting and search functions
  - List search of pre-entered protocol files (multifunction protocol)
  - Search for Control Boxes due for maintenance
  - Error statistics

## 3 "datamatic easy" Software

- Simple version for reading protocols
- No sorting function
- No data transfer to Excel



## "memomatic"

- data transfer box
- For reading and transferring protocols to PC and printer
  - For "polymatic plus"
  - 2 MB data memory for protocols (approx. 4600 protocols)
  - Integrated serial/parallel printer converter with automatic recognition
  - Compact design (approx. 110 x 60 x 20 mm)
  - Power pack and transfer cable for data memory included



## Welder ID

- For user identification
- Data registered in protocol



## Tools and Accessories

### Hand Scanner



- Instead of barcode reading pen
- Fast and safe reading of barcode
- Suitable for "polymatic" and "polymatic plus"

### Transport box



- For safe storage of "polymatic" Control Boxes
- In impact proof plastic
- Dimensions: 470 x 360 x 500 mm

### Welding cables



- Up to 16 m long
- Special lengths on request
- Easy plug
- Suitable for "polymatic" and "polymatic plus"

### Other accessories



- Pipe Holder Clamps and Kits
- Pipe Scraper Tools
- Hand Scrapers
- Rounding Clamps
- PEHD Detergent

## Electro Fusion Components



- Electro Fusion Couplers
- Tapping Saddles
- Tapping Valves
- Long leg Butt Fusion Components
- Wall penetration Fittings





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