iew

PLC-Automatic sequence control
for temperature control

ECO ENERGY-EFFICIENT · ECOLOGICALLY FRIENDLY

Input option of up to 100 heating programs

Alphanumeric input of the program name

Temperature profiles (set temperature, ramp rate, hold time, etc.)

Parameter set for protective gas applications

*Customer specific heating programs*

PLC-Automatic sequence control

The automatic sequence control of the iew GmbH enables you to realize induction heating processes with up to 10 different programs in the speed dial memory with an alphanumeric input of the program name as well as the corresponding temperature profiles (set temperature, ramp rate, hold time, etc.). On the internal drive 100 programs can be saved and loaded directly into the speed dial memory for the heat treatment. The automatic sequence control consists of a 7" TFT-Touch-Panel where the desired parameters can be set up. But this PLC is not only suitable for fully automated production facilities but also for small and manual workplaces where peripheral devices such as hoist cylinders and magnetic valves should be activated.

The iew program structure

Date:	dd.mm.yy	Cooling temperature:	225 [°C]
Time:	hh:mm:ss	Cooling ramp time:	0.5 [C/s]
Current programm number:	1 [ ]	Cooling time:	0.0 [s]
Program:	SCHERZUG AUSLIEFER V1 [ ]	Component cooling:	0.0 [s]
Max. output	100 [%]	Process time:	1000.0 [s]
Max. output at start	25 [%]	Follow-up program:	FALSE [ ]
Controller P:	3000.0 [ ]	Follow-up program no.:	1 [ ]
Controller I:	500 [ ]	e-Factor:	100 [%]
Controller D:	0 [ ]	e-Factor2:	100 [%]
Move:	FALSE [ ]	e-Factor3:	100 [%]
Preflood:	0.0 [s]	Adjustment:	32 [Wdg]
Set temp.:	250 [°C]	Inductor designation:	INDUCTOR [ ]
Set temp. MIN:	245 [°C]	Graphic:	Picture [ ]
Set temp. MAX	275 [°C]	Description1:	[ ]
Ramp up time:	1.0 [C/s]	Description2:	[ ]
Start time:	1000.0 [s]	Description3:	[ ]
Start time temp.:	0 [°C]	Description4:	[ ]
Hold time:	10.0 [s]	Description5:	[ ]
Start emulsion:	0.0 [s]	Protection gas on:	FALSE [ ]
Duration emulsion:	0.0 [s]		
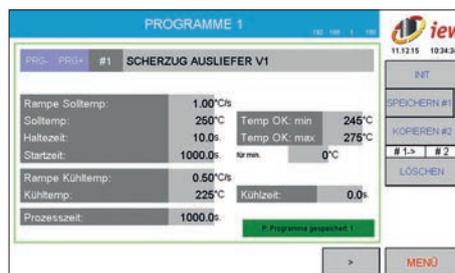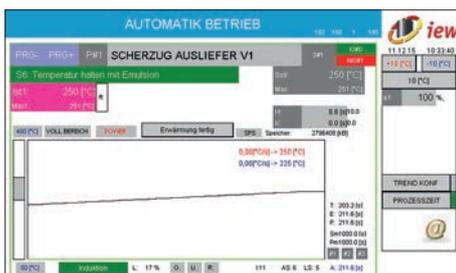
The iew user interface is available in the following languages: DE, EN, HU, PL, HR, CS, ZH, FR

PLC-AUTOMATIC
SEQUENCE CONTROL

HF-CABLE

GENERATOR

LIFTING DEVICE

FOOTSWITCH

PYROMETER

PYROMETER

HEATING STATION WITH
INDUCTOR
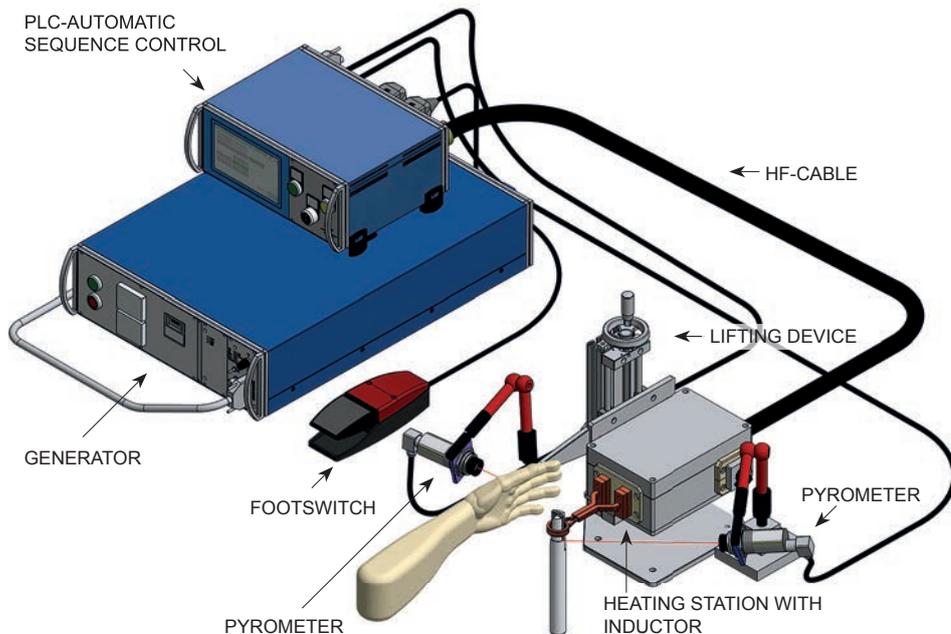
Particularly user-friendly: If one pyrometer beam is interrupted, the second pyrometer continues to control the temperature and prevents local overheating.

In the brazing technology, two pyrometers offer the special advantage, that while applying the brazing alloy, one pyrometer beam can be interrupted but the second beam continues to control the temperature.
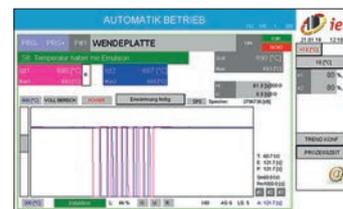
Interruption of a pyrometer beam in the holding phase

Layout and technical data

Technical data

Power supply	230V 3.15A
Digital input	24V DC
Digital output	24V DC mit 0.5A
Display	7" WVGA Touch Display
Connections	1x USB (optional)
	1x Ethernet TCP/IP (optional)
	1x SD memory card slot (optional)
Ambient temperature	-5 … +40 °C
Humidity	up to 85 %
Degree of protection	IP 20

Inputs

Analog inputs	10
Digital inputs	16
Inputs already occupied by the induction unit	• Pyrometer input 4…20mA
	• Input for error of lifting system
	• Input for error of rotary table

Outputs

Analog outputs	4 x 0…10V
	2 x 0(4)…20mA
Digital outputs	16
Outputs already occupied by the induction unit	• Output for power transmission at the inductor
	• Allowed induction unit power 0…100 %
	• Switch-on output for air drying
	• Switch-on output for cooling emulsion

The Automatic Screen

PRG+	The next program is loaded into the control unit
PRG-	The previous program is loaded into the control unit
P # 1	Info text of the current channel number (#1)
S # 1	Quantity of the finished parts
IO / NIO	Quantity of good and/or bad parts
Workpiece photo	The assignment of the displayed image with the image size 300x250 pixels is done in the menu „Programs"
Display	Information about the current process step e.g. actual temperature, hold time, etc.
Trend display	Display of the current workpiece temperature with target- and actual value. The target temperature is displayed in black colour. The measured curve changes its colour during heating. If the actual temperature is lower than the target temperature the curve is displayed in blue and if the target temperature is lower than the actual temperature, the curve is displayed in red
Operator	Assignment of the operaters name; it is possible to change between 6 preset names
Serial Number	Displays the actual serial number of the corresponding work order
Outputs	Display the current status of the individual machine components. The green display signalizes that the corresponding component is currently switched on. For single components, the default value is displayed as an information (e.g. Induction power with 25%)