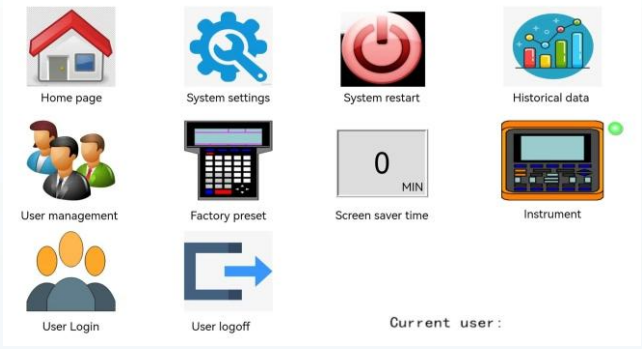
MF43HYC Touch screen ramp and soak controller

UP to 6 recipes, 12 segments for each recipe



**Touch screen ramp and soak controller with USB, ethernet and WIFI*
**Access remotely from APP which works on both android and IOS system*
**Access remotely from PC via website*
**Access locally from PC via Ethernet port on the unit*
**Datalogging function, data can be exported to your PC*
**Scheduled startup function, you can have the unit pre-programmed and scheduled to start the heating at any point whether it's midnight or earlier in the morning with the built-in clock function*
**Trouble shooting and configuration for your customer remotely via PC or cell phone at your finger tips*

General features:

- Maximum 6 recipes, each recipe with maximum 12 segments
- 4.3 inch TFT display, fully touch screen
- Support thermocouple input(K,E,J,N,Wu/Re3-25,S,T,R,B), input field configurable, Pt100 input needs to be custom made
- Relay, SSR Drive, 4-20mA, output optional
- Two alarms, relay output
- 100~240Vac supply 50/60HZ
- Resistive touch screen which is more durable and stable for industrial application

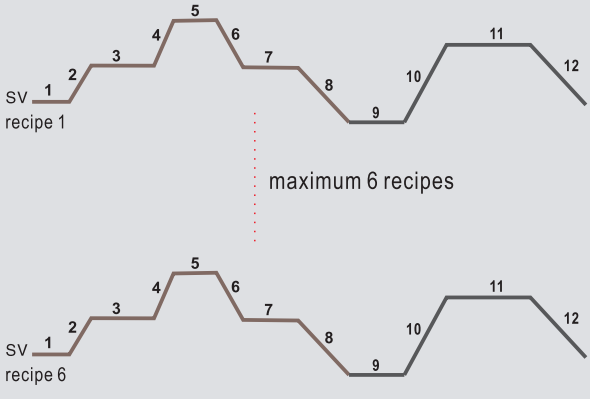
Ordering Information

MF43HYC-A629-A-MAX01Y: **3 SSR outputs, 2 alarms, TC inputs**
MF43HYC-A629-M-MAX02Y: **Relay output, 2 alarms, TC inputs**
MF43HYC-A629-8-MAX03Y: **4-20mA output, 2 alarms, TC inputs**

Remarks: PT100 input is available on request, and needs to be custom made, the unit will not support thermocouple input if it is made to work with Pt100. Please contact our sales team if you have any query.

Recipes and segments

- Maximum 6 recipes, each recipe with maximum 12 segments



Quick Start Guide

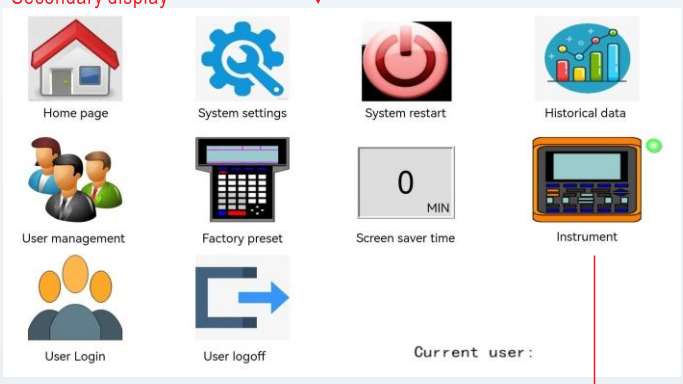
Below is the interface you will see after power on. Language selection is on the upper right of the screen, logo in the middle, on the lower right of the screen,you can click the button “Entry System”, and that will take you to the main display of this controller.

Remark: Private label is possible, the PIDMAXWELL logo can be replaced by your logo
System in other language is also possible with MOQ

Primary display

Tap on the “Entry System” button

Secondary display



Tap on the “instrument” button

Main display

This is the main display of this controller, it tells a lot of information about the system, here are the detailed information on each part of the display

PV: Shows the process value
SV: Setting value
Display unit indication(Celcius or Farieheit)
Input type indication
Output indication
Alarm 1 indication
Alarm 2 indication
WAIT indication
Ph1: Phase 1 maximum output indication
PH2: Phase 2 maximum output indication
PH3: Phase 3 maximum output indication
Output: Output digital indication, from 0%~100%
Out limit: Output maximum value

Display the real time, clock function

Shows that the controller is currently running on recipe 1, the name of the recipe is “Maxwell001” and the maximum temperature of the recipe is 150 degree celcius

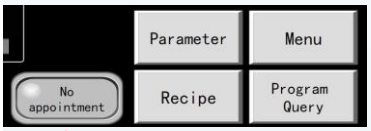
The burning fires shows the controller is running on a recipe, the total time remaining of the recipe is 0 hour and 15 minutes

Shows the controller runs on segment 4 of recipe 1 and the time remaining for segment 4 is 15 minutes

The maximum temperature of the recipe is 150 degree, if anything goes wrong in the system which causing the temperature to rise and reach to 180 degree, the alarm 1 will be triggered and system will be shut down

RUN, RESET, JUMP,

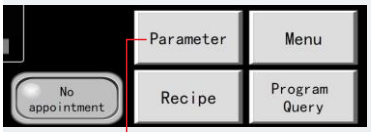
RUN: Tap on the RUN key will active the control process
RESET: Tap on the RESET will terminate the program and put the program on stop status
JUMP: Tap on the JUMP, the program will move to next segment, for example, if the controller is running on recipe 1 segment 7, tap on the JUMP button, the controller will go to segment 8 of recipe 1.



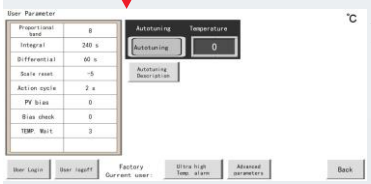
Appointment is a scheduled start-up feature.

Tap on the “No appointment” key will take you to below display, the yellow bar pops-up

In many cases, the operator would pre-program the controller and have all parameters setup before they left the shift, and plan to have the system running at some point later, for instance, if this happens on Nov/25 of 2023, 11:25 in the morning, and you want to run the program on Nov/26, 16:40 in the afternoon, then you can put DATE as “26”, HR as “16”, and MIN as “40”, the controller will kick-in and start the heating on Nov/26 of 2023.

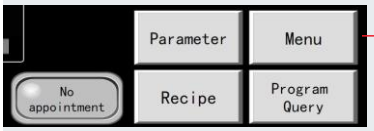


Tap on “Parameter” button and you can see below parameter setting page pops-up on the display



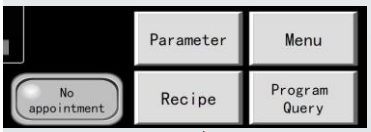
You can configure some of parameters such as P,I,D values or active auto-tuning on this parameter page.

PV bias, Temperature wait value etc



Tap on “Menu” button

Tap on “Menu” button will take you back to the secondary display where you can go to different sections like “system settings”, “ system restart”, “historical data” etc



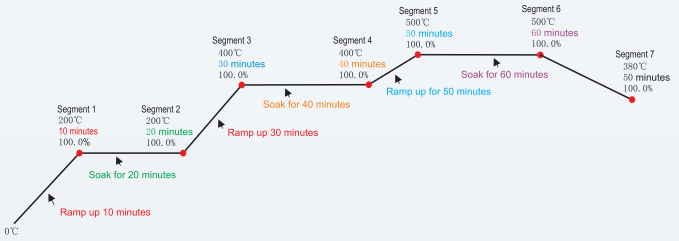
This is the section where you can built the recipes according to your application

Click on the computer alike image will take you to below section

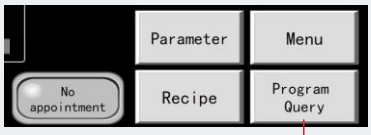
Recipe name: Maxwell01					Recipe TEMP. 0 ℃	
Preset	SEG 1	SEG 2	SEG 3	SEG 4	SEG 5	SEG 6
Temp ℃	200	200	400	400	500	500
Time Min	10	20	30	40	50	60
Power limit%	100 %	100 %	100 %	100 %	100 %	100 %
Preset	SEG 7	SEG 8	SEG 9	SEG 10	SEG 11	SEG 12
Temp ℃	380	0	0	0	0	0
Time Min	50	0	0	0	0	0
Power limit%	100 %	0 %	0 %	0 %	0 %	0 %

Explain | Back | Writting

For example, if you are to program a recipe as below, input the value into respective positionas like above image and click "writting" to apply the recipe, you can also change the recipe name to whatever name you want, A combination of letters and numbers, preferably less than 9 digits



Note 1: The controller will always consider 0 degree as the beginning of a curve but in a field application, the temperature inside the oven won't be 0 degree. when this happens, suppose the temperature in the oven is 100 degree when the program beings then the remaining segment time for the first segment will be 5 minutes, as the first segment is ramp up from 0 degree to 200 degree within 10 minutes, and by the time when you active the controller and controller goes to first segment, the temperature inside the oven is already 100 degree and controller assuming that the temperature went from 0 degree to 100 degree and takes about 5 minutes, so it will automatically reduce the time of the first segment to 5 minutes and starts from 100 degree which is currently process value in the oven when you turn on the system.



Tap on "Program Query" will take you to below dashboard

34 ℃ PV	46 ℃ SV	150 ℃ Maxwell01	RUNNING	1 SEGMENT	11 MIN SEG REMAIN TIME	2 HR 1 MIN TOTAL REMAIN TIME

Recipe 1	SEG 1	SEG 2	SEG 3	SEG 4	SEG 5	SEG 6
Temp ℃	100	100	150	150	0	0
Time Min	20	30	50	30	0	0
Power limit%	100 %	100 %	100 %	100 %	0 %	0 %
	SEG 7	SEG 8	SEG 9	SEG 10	SEG 11	SEG 12
Temp ℃	0	0	0	0	0	0
Time Min	0	0	0	0	0	0
Power limit%	0 %	0 %	0 %	0 %	0 %	0 %

Current Recipe: Maxwell01 RECIPE TEMP. 150 ℃ | Explain | Back

This is a dashboard displays all information about the recipe that the controller is currently running on, for example, PV, SV, the highest temperature point of the recipe, recipe name, current segment, segment remain time and recipe remain time etc. the dashboard let you know everything about the current recipe.