HMI-PID Human Machine Interface

Display specification: 7" Screen size, with 1024x600 resolutions 16:9 IPS LCD,
Capacitive touch screen
CPU: Cortex-A7 528MHz
Memory: 512MB LvDDR3
Storage (ROM): 4GB eMMC
Dimension: 200x136x30 Cut out panel Size195x131
2 USB ports: Use for exporting data, upgrading software and connecting to mouse.
Com1 (A1,B1): Connect to RS485 port of our temperature controller and you can Change timeout, interval, wait, retry and max slave address
Com2 (A2,B2): Connect to RS485 port of PLC and you can change baud Rate, Stop Bits, Parity and number of address

Important advantage:

1- You can program, monitor and control your production lines manually or by HMI system at the same time.
2- Save money with connecting more production lines (64 independent systems) with your HMI system.
3- Easy setup compare to other PLC's
4- Save time with connecting more production lines (64 independent systems) with your HMI system.
5- You can check and analyze your database clone with fast alarm recognition with a real time feedback and use USB stick for storage.
6- Make unlimited programs for your each production line.
7- Central location (on your 7" display) for programing, monitoring and controlling the multiple
8- User friendly system, easy training to supervise the automation line with less hardware.

Please consider following tips,

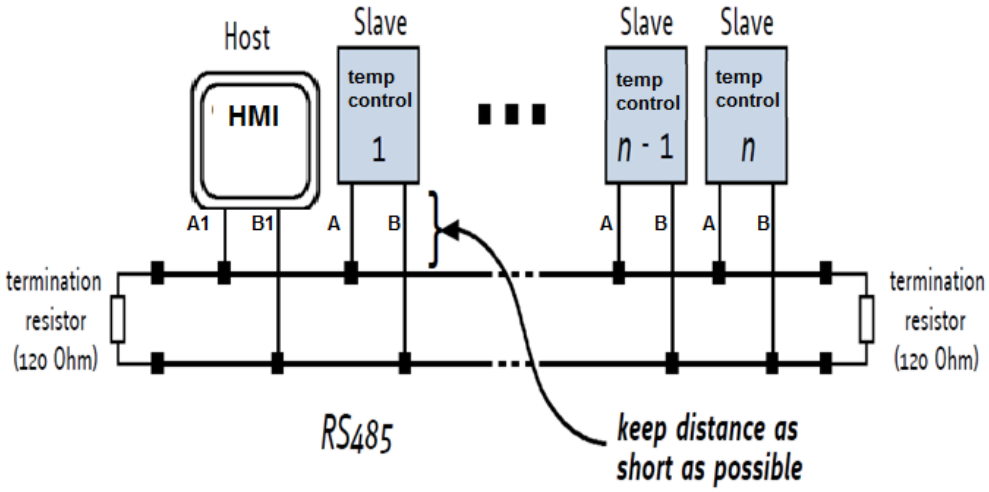
1-HMI-PID touch screen only connect to our temperature controllers with RS485 output.
2-For clicking on commands, you need move the cursor to the exact place. You can record or stop temperature recording by clicking Record or Stop REC icon.
3-Bottom of the screen shows situation of temperature controller connecting, temperature recording, used space, firmware version, date and time.
4- Up to 64 temperature controllers can be connected to A1 and B1 (RS485 connection). Just increase the channels (address) to 1,2,3... on your HMI system (Setting->communication setting-> number of address).
5- The HMI-PID comes with 4 panel mount holders for installing the HMI display on your needed panel.

Recognize your HMI system

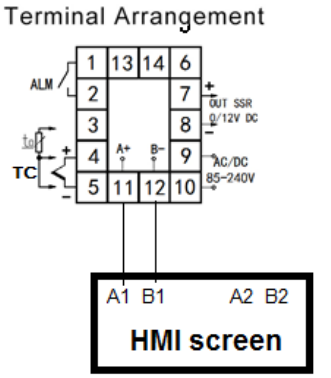
Plug the temperature controller box and then plug the HMI system (it turns on after few seconds). We setup the temperature controller box with HMI touch screen when you buy them together, but If the touch screen HMI does not recognize your temperature controller, please click on "Search" and then click on "Recognize". Then the software recognize your temperature controller. When the process done click on "Apply", for saving the setup.

Wiring instruction:

If you need to wire one or more than one temperature controller to HMI system, you need to follow following instruction.



Connect to mutiple temperature controller

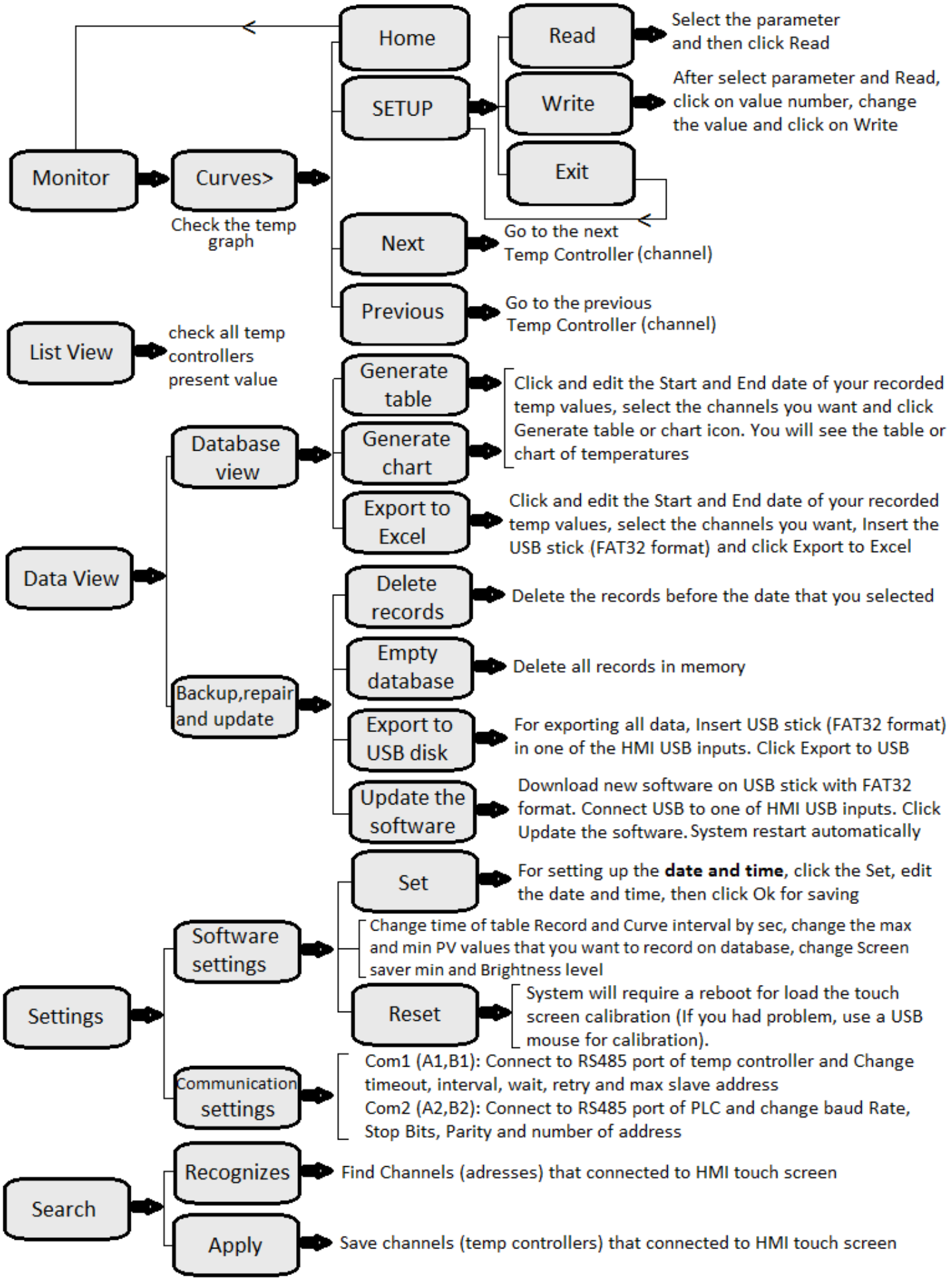


Connect to one temperature controller

1. **Bus structure:** The network topology should follow a bus structure as closely as possible. That is, the connection between each node and the bus itself should be as short as possible. Basically, it should be short compared to the length of the bus.

2. **Bus termination:** Especially for longer busses and/or multiple nodes connected to the bus and/or high communication speeds, the bus should be properly terminated at both ends. Most of our modules do not integrate any termination resistor (please check with the datasheet). Therefore, 120 Ohm termination resistors at both ends of the bus have to be added externally.

3. **No floating Bus lines:** Avoid floating bus lines while neither the host/master nor one of the slaves along the bus line is transmitting data (all bus nodes switched to receive mode). Floating bus lines may lead to communication errors. In order to ensure valid signals on the bus it is recommended to use a resistor network connecting both bus lines as well defined logic levels. In contrast to the termination resistors this network is normally required just once per bus. Certain RS485 interface converters available for PCs already include these additional resistors (e.g. USB-2-485).


Home
Read
Select the parameter and then click Read
SETUP
Write
After select parameter and Read, click on value number, change the value and click on Write
Exit
Monitor
Curves>
Check the temp graph
Next
Go to the next Temp Controller (channel)
Previous
Go to the previous Temp Controller (channel)
List View
check all temp controllers present value
Generate table
Click and edit the Start and End date of your recorded temp values, select the channels you want and click Generate table or chart icon. You will see the table or chart of temperatures
Database view
Generate chart
Export to Excel
Click and edit the Start and End date of your recorded temp values, select the channels you want, Insert the USB stick (FAT32 format) and click Export to Excel
Data View
Delete records
Delete the records before the date that you selected
Empty database
Delete all records in memory
Backup,repair and update
Export to USB disk
For exporting all data, Insert USB stick (FAT32 format) in one of the HMI USB inputs. Click Export to USB
Update the software
Download new software on USB stick with FAT32 format. Connect USB to one of HMI USB inputs. Click Update the software. System restart automatically
Set
For setting up the date and time, click the Set, edit the date and time, then click Ok for saving
Software settings
Change time of table Record and Curve interval by sec, change the max and min PV values that you want to record on database, change Screen saver min and Brightness level
Settings
Reset
System will require a reboot for load the touch screen calibration (If you had problem, use a USB mouse for calibration).
Communication settings
Com1 (A1,B1): Connect to RS485 port of temp controller and Change timeout, interval, wait, retry and max slave address
Com2 (A2,B2): Connect to RS485 port of PLC and change baud Rate, Stop Bits, Parity and number of address
Recognizes
Find Channels (adresses) that connected to HMI touch screen
Search
Apply
Save channels (temp controllers) that connected to HMI touch screen