

Features

- Surge-protected Universal Inputs with 10-bit resolution.
- UL listed ABS enclosure with rubberized texture creates a high end feel.
- The RS485 port has separate upstream and a downstream connectors to make troubleshooting easier.

• Software configure the I/O ranges with the free T3000 software or by writing to the registers with your own software.

• Each input as well as the RS485 connections have a separate screw terminal, there's no need to gang two wires under one terminal for any of the terminations.

• Each output has a hand-off-auto switch for easy troubleshooting and overrides.

• Baudrates: 9600, 19200, 38400, 57600,76800 and 115200bps.

- The T3 modules support Bacnet over MSTP and TCP/IP as well as Modbus.
- In this first 10 seconds period, heartbeat LED on the T3E-886 will be flashing, as the rhythm of 2 fast 1 slow, to show the device is in ISP mode now.

• Source code for the modules is available with your first purchase.

• T3000 front end is free and open source: http://tinyurl.com//n7kkqp6

• Compiled version of the front end is here: http://tinyurl.com/y7uyu9n3

Highlights



Specifications

•T3E-22i analog input: 22 Al@0-5V, 0-10V, 4-20mA, 10K Type2 NTC

- •T3E-32i analog input: 32 AI@0-5V, 0-10V, 4-20mA, 10K Type2 NTC
- •T3E-886analog input: 8 AI@ 0-5V, 0-10V, 4-20mA,10K Type2 NTC.

•T3E-22i, T3E-8o T3E-32i digital input: DI@ pulse counter

- •T3E-886 analog output: 8 outputs@0-10V Accuracy: 0.01V
- •T3E-886relay output: 6 relay dry-contact outputs DC12V, 3A@125VDC
- •Baudrate: 9600, 19200, 38400, 57600, 76800, 115200
- •Operating temperature: -30~70°C (-22~158°F)
- •Supply voltage: 15~24VAC/DC ±10%, 50-60Hz •Power consumption: 100mA at 15~24VAC/DC
- •Storage temperature: -40~85°C
- •Operating ambient humidity: 0-80 %Rh
- •Communications: RS485, Ethernet
- •Enclosure color: Black

Part Number Scheme



Approvals

Plastic Enclosure	PA66
PCB	FR-4 Epoxy Glass Cloth UL file NO. E360179
Terminal Block	PA66 UL file NO. E365137
Relay	UL file NO. E332982

Wiring Diagram

The T3E-22i has 22 inputs, 2 RS485 terminals that share the same serial port, and 1 Ethernet port.

11INPUTS 11INPUTS THERMOSTAT TEMPERATURE 1 27 22INPUTS 28 52 FILTER SWITCH 29 51 2 26 OCCUP SENSOR FLOW SENSOR 3 25 30 50 FAN STATUS WINDOW CHANGEOVER FREEZE PROTECT POWER METER **BTU METERS** 11 17 38 42 16 **D** 39 AC/DC 12 15 ÷ + 40 LAN 14 🕂 (RS485) 🔍 41 GND (13)**XFORMER** R S 4 8 5 **NETWORK**

The T3E-22i are amazing! The features that are most amazing:

- Software Configurable I/O
- Ground Screw terminals for all 22 inputs.
- Feed through to aide in daisy chaining RS485 connection
- 22 Pulse counters
- Higher Baud Rates
- BACNet support
- Supports Modbus TCP
- Cad is available, 3D and 2D acad/corel draw vector art.

T3-22i WIRING DIAGRAM

The T3E-32i has 32 inputs, 2 RS485 terminals that share the same serial port, and 1 Ethernet port.



T3E-32i

The T3E-886 has 8 inputs, 8 outputs, 6 relays, 2 RS485 terminals that share the same serial port, and 1 Ethernet port.



Dimensions



Standard Operation

Inputs

Each input of a T3 Module can be configured in 1 of 5 ways:

0-5V 0-10V 4-20mA 10K type2 NTC pulse counter

The value of each input is stored as a 10-bit number in the respective modbus register.

The maximum values for the 5V, 10V, 20mA is 1023, and pulse counter configurations would produce a reading of 65536*65536=4294967296. Each input has a corresponding LED which will light up if the value of the input is greater than 512.

Here following one table showing the info of pulse input.

Model	Number	of inputs	Register address	Pulse					
T3E 22; 22	22	1-11	100-121	High Speed: Support up to 1KHz pulse input					
135-221	12	12-22	122-143	Low Speed: Support up to 10Hz pulse input					
T3E-886	T3E-886 8		116-131	Low Speed: Support up to 10Hz pulse input					

T3E-22i high and low speed counters configured in T3000 software



Outputs

The state of each output is determined by its corresponding switch position for the T3E-886. The switches have 3 states: hand /off /auto.

	Analog	Digital
Hand	10V	Disconnected
Off	0V	Connected
Auto	Register Value	Non-zero value = activate

The registers addresses are as follows:

Model	Number of analog outputs	Register addresses
T3E-886	8	100-107

Model	Number of digital outputs	Register addresses
T3E-886	6	108-113

When the switch is set to the 'hand' position, the corresponding output will be switched to 10V for analog, the contact will be disconnected the relay, or 0V for sinking outputs. When it is on the 'off' position, the output will be set to 0V for analog, contact open for relay, or open circuit for sinking outputs. When it is on the 'auto' position the analog output will be set to the level stored in the corresponding MODBUS output registers. For digital or sinking outputs, a register value of 0 is to deactivate and a register value of 1000 is to activate.

These registers can be changed using the RS485 serial interface when in auto mode. For analog outputs, 0 corresponds to 0V, 1000 corresponds to 10V. For relay or sinking outputs, the output will be activated by any number greater than 0. The output registers are stored in RAM, thus the contents of each register will be lost upon power-off. Each output has a corresponding LED which will light up if the value of the output is greater than 0. For more information, please see the Standard Register lists starting on the next page.

Baudrate

T3E-22i and T3E-886 have adjustable baudrates that are set by register 15. The options include:

value 0 will set the baudrate to 9600bps value 1 will set the baudrate to 19200bps value 2 will set the baudrate to 38400bps value 3 will set the baudrate to 57600bps value 4 will set the baudrate to 115200bps value 5 will set the baudrate to 76800bps

How to Update Firmware

There are two ways to update the firmware, T3000 and ISPTool. For ISPTool, it also contains RS485 network and Ethernet. Download T3000 software http://tinyurl.com/y7uyu9n3 and install it. Then you will see two icons on your desktop, T3000 and ISPTool.



1. Use ISPTool RS485 to Update

In this section, we will first explain how to use ISPTool RS485 to update the firmware. Here take an example of T3E-886, connect T3E-80 to your computer via RS485 connectors. Connect the T3E-886 to 24V AC/DC power.

- 1) Start ISPTool software, as below photo shows, you will see RS485 setting, click and choose it.
- 2) Set broadcast ID 255 or module Modbus ID.
- 3) Choose the com port what you used and click select to choose the file you prepare to program.
- 4) Turn on the power of the T3E-8o, within the first 10 seconds of powerd on, click flash.

😾 ISP Tool Version 4.9.4		55 ISP Tool Version 4.9.4	
Menu		Menu	
RS485	Input more than one ID ID: 255 Com Port: COM1 Baudrate: 19200 NET FLASH IP Addr: 192.168.0.183 IP Port: 502 PING IP Address Flash SubNode By ID ID: The File Infor:	Log Information: Detecting your Braudrate. Detecting your Braudrate:19200 Detecting your Braudrate:19200,Successfully. [Hex file verified okay. Open COM1 successful. Programming device >>>StartTime:2016-5-10 9:58:43 [Current Programming device ID is : 255 Initializing device Erasing device ID 255: Programming lines 123136 to 123264.(100)	 Input more than one ID ID: 255 Com Port: COM1 • Baudrate: 19200 • NET FLASH IP Addr: 192.168.0.183 IP Port: 502 PING IP Address Flash SubNode By ID ID: The File Infor:
File path: igns\T3-Modules\code\arm_t3\T3_ARM\C	BJ\T3_22al_REV6.hex Select	File path: D:\Designs\T3-Modules\code\arm_t3	\T3_ARM\OBJ\T3_6doi_RE\ Select

2. Use ISPTool Ethernet to Update

In this section, we will display how to use ISPTool Ethernet to update the firmware. Connect T3E-886, for example, to your computer by Ethernet and turn on the power of 24VAC/DC of the unit.

1) Start ISPTool software, as below photo shows, you will see Ethernet setting.

2) Set IP address, ensure that the IP address of the module and the IP address of the computer must in the same subnet.

3) Set IP port to 502.

4) Click "PING IP Address" to check whether the communication is good. If not, then check the wire and setting. If it's good as below the screen shot, after you choose the file, click FLASH to program.

55 ISP Tool Version 4.9.4		😾 ISP Tool Version 4.9.4			
Menu		Menu			
Log Information:	COM FLASH	Log Information:	COM ELASH		
Proging 192.168.0.183 From 192.168.0.183 : bytes=64 time=265ms TTL=128 From 192.168 0.183 : bytes=64 time=0mc TTL=128	ID: 255	Pinging 192.168.0.183 From 192.168.0.183 : bytes=64 time=0ms TTL=128	ID: 255		
From 192.108.0.183 : bytes=04 time=10ms T1E=128 From 192.108.0.183 : bytes=64 time=10ms TTL=128 From 192.168.0.183 : bytes=64 time=0ms TTL=128 Ping statistics for 192.168.0.183 : Packets: Sent = 4, Received = 4, Lost = 0 (0% loss) Ethernet	Com Port: COM1	From 192.168.0.183 : bytes=64 time=15ms TTL=128 From 192.168.0.183 : bytes=64 time=0ms TTL=128 From 102.168 0.182 : bytes=64 time=0ms TTL=128	Com Port: COM1		
	NET FLASH	Ping statistics for 192.168.0.183 : Packets: Sent = 4. Received = 4. Lost = 0 (0% loss)	NET FLASH		
	IP Addr: 192.168.0.183	Checking firmware file,please wait! Communication with device.(Remain time:8)	IP Addr: 192.168.0.183		
	IP Port: 502	The Device IP is 192.168.0.183 Send DHCP Package!!(Remain time:10)	IP Port: 502		
	PING IP Address	The Device IP is 192.168.0.183	PING IP Address		
	Flash SubNode By ID	Total package(241).Resend package(2)	Flash SubNode By ID		
	The File Infor:		The File Infor:		
File path: igns\T3-Modules\code\arm_t3\T3_ARM\OI	BJ\T3_22ai_REV6.hex Select	File path: igns\T3-Modules\code\arm_t3\T3_ARM\C	DBJ\T3_22ai_REV6.hex Select		
FLASH		FLASH			

3. Use T3000 to Update

1). Connect your device to PC via RS485 or Ethernet cable, then start T3000 software and click the 'Scan'.

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l Network					IN 1	Auto	1014.00		Upused	0.0		5	Nomal	Unused	IN1	_		
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	15000 scanning		1000				Server in		Unused	0.0		5	Normal	Unused	IN2			
anel_113									Unused	0.0		5	Nomal	Unused	INA			
nel14	T3000 is scanning, plea	ase wait							Unused	0.0		5	Nemal	Unused	IN4	-		
									Unused	0.0		5	Normal	Unused	INC	-		
-221:10	Exit								Unused	0.0		5	Namel	Unused	IN T			
NY							2		Unused	0.0		5	Nama	Unused	IN/			
ort III				1					Unused	0.0		5	Normal	Unused	INO			
on	Scanning Mode	Skip	Status	Reply		Notes			Unused	0.0	-	5	Normal	Unused	INS			
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	COM1 9600	No	Finished	0		Scan finis	hed		Unused	0.0	+	0	Normal	Unused	INT			
	COM1 19200	No	Finished	1		Scan finis	hed		Unused	0.0	+	0	Normal	Unused	IN 12			
	COM1 38400	No	Finished	0		Scan finis	hed		Unused	0.0	+	0	Normal	Unused	IN13			
	COM1 57600	No	Finished	0		Scan finis	hed		Unused		÷	0	Nomal	Unuand	IN14		-	-
	COM1 115200	No	Running	0		Sending scan broadcast cor	mmand From 1 to 254		Ur Scan Res	ult	100.00			in all				frame.
	COM8 9600	No	Wait	0					UH									
	COM8 19200	No	Wait	0					SCAL	RESULT:								
	COM8 38400	No	Wait	0						Model	Ruildin	Eleor	Room	Sub nat	Carial#	Address	Port	Protocol
	COM8 57600	No	Wait	0					Ur	CO2	Building	1 floor1	room1	Building 1	91682	254	COMI	Modbus 48
	COM8 115200	No	Wait	0					Un niPar	el:196610-1-192.168.	0.2 Building	1 floor1	room1	Building_1	196610	192.168.0.252	10000	TCP/IP
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					1.1.1				UH IBA	06DO:90867-10-192.1	68 Building	1 floor1	room1	Building_1	90867	192.168.0.252	10000	TCP/IP
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				IN28	IN 27	Auto	1023.00		Ur iniDa	1:100-254-192.168.0.	103 building	1 floor1	room1	Building 1	100	192.105.0.163	10000	TCP/IP
									miPa		ne bunuing		100/111	Jonung_1	33700	172.100.0.243	302	10F/1P
									niPar	el:92294-254-192.168	.0. Building	1 floor1	room1	Building 1	92294	192,168,0.97	502	TCP/IP

2). You will get the devices on the left device tree.

Local Network	#iput	Full I abol	Auto /Manual	Value	Linto	Panas	Calibration	Cinc	Ditor	Chatura	humpor	Inhal	
Local Network		IN 1	Auto	1022.00	Units	Upunod	Calibration	Jigit	5	Normal	Jumper	IN1	
	IN 1	IN 2	Auto	1.00		Unused	0.0	-	5	Nomal	Unused	IN1	_
MiniPanel:196610-1-192.168.0.252	IN3	IN 3	Auto	1023 00		Unused	0.0	-	5	Nomal	Unused	IN3	
+9	IN4	IN 4	Auto	1023.00		Unused	0.0	-	5	Normal	Unused	IN4	
	IN5	IN 5	Auto	1023.00		Unused	0.0		5	Normal	Unused	IN5	
MiniPanel:05069-1-192.168.0.14	IN6	IN 6	Auto	1023.00		Unused	0.0	-	5	Normal	Unused	IN6	=
MiniPanel:65768-1-192.168.0.243	IN7	IN 7	Auto	1023.00		Unused	0.0		5	Normal	Unused	IN7	
MiniPanel-90040-1-102 168 0 113	IN8	IN 8	Auto	1023.00		Unused	0.0	-	5	Normal	Unused	IN8	
	IN9	IN 9	Auto	1021.00		Unused	0.0	-	5	Normal	Unused	IN9	
MiniPanel:92294-254-192.168.0.97	IN10	IN 10	Auto	1018.00		Unused	0.0	-	5	Normal	Unused	IN10	
	IN11	IN 11	Auto	1020.00		Unused	0.0	1	5	Normal	Unused	IN11	
T2 8418406D0-00867 10 102 168 0 252	IN12	IN 12	Auto	1020.00		Unused	0.0		5	Normal	Unused	IN12	
13-0A10A00D0.50007-10-152.100.0.252	IN13	IN 13	Auto	1019.00		Unused	0.0	-	5	Normal	Unused	IN13	_
TStat6:84349-5-192.168.0.252	IN 14	IN 14	Auto	1020.00		Unused	0.0		5	Normal	Unused	IN14	
TStat6:90106-4-192.168.0.252	IN 15	IN 15	Auto	1020.00		Unused	0.0	5	5	Normal	Unused	IN 15	_
T5+++9-4204067205-254-102168-0.252	IN 10	IN 10	Auto	1020.00		Unused	0.0	-	5	Namal	Unused	11117	
131210.4254507255-254-152.100.0.252	IN12	IN 19	Auto	0.00		Unused	0.0	-	5	Nomal	Unused	IN12	_
WIFI:1111-2-192.168.0.97	IN19	IN 19	Auto	1019.00		Unused	0.0	-	5	Nomal	Unused	IN19	
Serial Port	IN20	IN 20	Auto	1021 00		Unused	0.0	2	5	Normal	Unused	IN20	
Second A	IN21	IN 21	Auto	1021.00		Unused	0.0	-	5	Normal	Unused	IN21	
	IN22	IN 22	Auto	1021.00		Unused	0.0	2	5	Normal	Unused	IN22	
CO2:91082254	IN23	IN 23	Auto	1022.00		Unused	0.0		5	Normal	Unused	IN23	
Remote Network Device	IN24	IN 24	Auto	1022.00		Unused	0.0		5	Normal	Unused	IN24	
	IN25	IN 25	Auto	1023.00		Unused	0.0		5	Normal	Unused	IN25	
	IN26	IN 26	Auto	1023.00		Unused	0.0	-	5	Normal	Unused	IN26	
	IN27	IN 27	Auto	1023.00		Unused	0.0	2	5	Normal	Unused	IN27	
	IN28	IN 28	Auto	1023.00		Unused	0.0		5	Normal	Unused	IN28	*

3). Update the firmware online.

State T3000 Building Automation System 2016.03.23		
T3000 Building Automation System 2016.03.23 File Tool View Database Control Miscellaneous Help Tool Tool Tool Control Miscellaneous Help Tool Tool Tool Contents Building_1 Tool Tool Contents Help FANCE_TEST_BOARD Check Upc Panel_113 Panel_4 Panel	istory 00 ddress 254 Change ID Serial Number 91682 Firmware Version 4.7 Date: 2013/ 5/27 ↓ date ware Version 22 Braudrate 19200 ↓ Product Name CO2 Relative Humidity 62.7 % Internal CO2 Sensor CO2: 971 ppm Good Alarm < 800 < Poor Alarm Alarm Setting Fair Alarm < 1000 < Poor Alarm Alarm Off (s) 2	
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Image: Serial Port Image: Seria Port Im	Clear External Calibration Offset	
Add 0 Tx 26 Rx 25 Err 0 Health 91%	Multi Read ID=254,start address=800.length=100	

Download Firmware		×
Product ID : 33	Update T3000	Download Fireware Only
Product Name : CO2	Open Firmware File Folder	Download Fireware And Update

Downloading the firmware:

Download Firmware	The Agency of	a charden			X
Product ID :	33			Download Fireware Only	
Product Name :	CO2		Firmware F	E File Folder Download Fireware And Update	
Connect to Temco server File name CO2-W_R47.h Local Firmware folder doe File download finished 25	success! ex .File size about 170496 Bytes mit exait the file we needed.we will dow %	wnload it from server.			
2					

Updating the firmware:

Download Firmware		×
Product ID : 33	Update T3000	Download Fireware Only
Product Name : CO2	Open Firmware File Folder	Download Fireware And Update
Wait connection to the IP 192.168.0.4 Connect to server success! File name CO2-W_R47.hex .File size about 170496 Bytes Local Firmware Aiready exist in the Firmware folder.The MD5 value is match FirmwarePath = C:\Program Files\T3000\Database\Firmware\CO2-W_R47.hex ISP baudrate : 19200 Device ID :254 [Open COM1 successful. [Programming device] Wait device jump to ISP mode. Write start tips command to device.(7) >>Begin >>Begin Time:2016-3-31 17:24:48 [Programming device] [Intializing device] ID 254: Programming lines 13312 to 13440.(22%)		

Update done.

ownload Firmware		
Product ID : 33	Update T3000	Download Fireware Only
Product Name : CO2	Open Firmware File Folder	Download Fireware And Update
/ait connection to the IP 192.168.0.4 onnect to server success! lie name CO2-W_R47.hex .File size about 170496 Bytes cocal Firmware Path = C:\Program Files\T3000\Database\Firmware\CO2-W_R47.hex SP via : COM1 SP baudrate : 19200 evice ID :254 Popen COM1 successful. Programming device Vait device jump to ISP mode. //rite start isp command to device.(7) 		

T3000 Software Introductions

1. Visit <u>https://temcocontrols.com/ftp/software/09T3000Software.zip</u>, download T3000 software and install it;

2. Connect T3E-22i to PC via RS485 at pin 14, 15 and 16 or Ethernet. Open the software T3000, it



3. Click scan, it will open below the window view, then close it.

() = 4	50		<u> </u>			2	1.	Click to	scan	
ican Result		- n	~ I	-			-	fange	- New -	
SCAN RESUL	т:									1
Model	Building	Floor	Room	Sub_net	Serial#	Address	Port	Protocol		
T3-22AI	fault_Buildi	floor1	room1	fault_Buildi	65569	200	COM3	Modbus 485		2. Close I

4. Click T3E-22i log, it will show all the information of it.

T3000 Building Automation System 2015.07.20	and the second s	physical and the second
File Tool View Database Control Miscellaneo	us Help	
$\blacktriangleright \bigcirc \bigcirc \Rightarrow \Leftrightarrow \bigcirc \oslash \blacksquare$	M 👁 🛄 🔅 🔍 📕	
Default_Building->Default_Building 🛛 🔻 🕈 🗙		
🖃 📲 Default_Building	ID Address 200 Change ID	Serial Number 65569
🗄 📲 Serial Port		·
🖃 🛃 Com3	Firmware Version 3056.0	Model T3-22AI
IJ-22AI:05569200	Hardware Version 23	PIC 1

5. Click input, it will show the view of all inputs. For T3E-22i, from input channel 1-11, it's high speed pulse counters. From input channel 12-22, it's low speed pulse counters.

🤯 T3000 Building Automation Syst	em 2015.07.20				
File Tool View Database Con	ntrol Miscellaneo	us Help			
	☞ 🛇 🛲				
Sensors and feedback poin	ts wired to the con	troller			
efault_Building-> Default_Building 🔹 🗣 >		.		Duran	File
🖃 📲 Default_Building	Number	Name	Value	Range	Filter
Serial Port	1	Input1	2683	RAW DATA	5
	2	Input2	2687	RAW DATA	5
🖻 💑 Com3	3	Input3	2692	RAW DATA	5
T3-22AI:65569200	4	Input4	2694	RAW DATA	5
	5	Input5	2688	RAW DATA	5
	6	Input6	2688	RAW DATA	5
	7	Input7	2685	RAW DATA	5
	8	Input8	2693	RAW DATA	5
	9	Input9	2684	RAW DATA	5
	10	Input10	2694	RAW DATA	5
	11	Input11	2688	RAW DATA	5
	12	Input12	2686	RAW DATA	5
	13	Input13	2691	RAW DATA	5



- 1. Download T3000 software https://temcocontrols.com/ftp/software/09T3000Software.zip and install
- it. 2. Connect T3E-886to PC via RS485 at pin 14, 15 and 16 or Ethernet. Start the software T3000, it will



3. Click scan, it will appear one pop up window.

indicit official constitute	3.T2		_		-				
Database Control Miscel	laneous l	Help							
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		M (•			14118	Click to	scan		
	Cound En			*					
an Result									
COMUNECULT.									
SCAN RESULT:									when discover
Model	Building	Floor	Room	Sub net	Serial#	Address	Port	Protocol	when discove
Model T3-8AI8AO6DO	Building fault_Buildi	Floor floor1	Room room1	Sub net fault_Buildi	Serial# 0	Address 254	Port COM4	Protocol Modbus 485	T3 module.
5_Ethernet:65584-7-192.168./	Building fault_Buildi fault_Buildi	Floor floor1 floor1	Room room1 room1	Sub net fault_Buildi fault_Buildi	Serial# 0 65584	Address 254 192.168.0.48	Port COM4 10000	Protocol Modbus 485 TCP/IP	T3 module,
5_Ethernet:65584-7-192.168.024	Building fault_Buildi fault_Buildi fault_Buildi	Floor floor1 floor1 floor1	Room room1 room1 room1	Sub net fault_Buildi fault_Buildi fault_Buildi	Serial# 0 65584 65729	Address 254 192.168.0.48 192.168.0.244	Port COM4 10000 10000	Protocol Modbus 485 TCP/IP TCP/IP	T3 module, then close it
5_Ethernet:65584-7-192.168.0 iniPanel:65729-1-192.168.0.2 TStat7:262744-4-192.168.0.48	Building fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Floor floor1 floor1 floor1 floor1 floor1	Room room1 room1 room1 room1	Sub net fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Serial# 0 65584 65729 262744	Address 254 192.168.0.48 192.168.0.244 192.168.0.48	Port COM4 10000 10000 10000	Protocol Modbus 485 TCP/IP TCP/IP TCP/IP	T3 module, then close it
5_Ethernet:65584-7-192.168.0 iniPanel:65729-1-192.168.0.2 TStat7:262744-4-192.168.0.48 atHUM:84448-250-192.168.0.	Building fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Floor floor1 floor1 floor1 floor1 floor1 floor1	Room room1 room1 room1 room1 room1	Sub net fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Serial# 0 65584 65729 262744 84448	Address 254 192.168.0.48 192.168.0.244 192.168.0.48 192.168.0.244	Port COM4 10000 10000 10000 10000	Protocol Modbus 485 TCP/IP TCP/IP TCP/IP TCP/IP	T3 module, then close it
SLAW RESULT: Model T3-8A18A06DO 5_Ethernet:65584-7-192.168.0 iniPanel:65729-1-192.168.0.2 T5tat7:262744-4-192.168.0.48 atHUM:84448-250-192.168.01 T5tat7:328280-5-192.168.0.48	Building fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Floor floor1 floor1 floor1 floor1 floor1 floor1 floor1	Room room1 room1 room1 room1 room1 room1	Sub net fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Serial# 0 65584 65729 262744 84448 328280	Address 254 192.168.0.48 192.168.0.244 192.168.0.244 192.168.0.244 192.168.0.244	Port COM4 10000 10000 10000 10000	Protocol Modbus 485 TCP/IP TCP/IP TCP/IP TCP/IP	when discove T3 module, then close it
SLAW RESULT: Model T3-8A18AO6DO 5_Ethernet:65584-7-192.168.02 T5tat7:262744-4-192.168.0.48 atHUM:84448-250-192.168.0.48 T5tat7:393816-6-192.168.0.48 T5tat7:393816-6-192.168.0.48	Building fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Floor1 floor1 floor1 floor1 floor1 floor1 floor1 floor1 floor1	Room room1 room1 room1 room1 room1 room1	Sub net fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Serial# 0 65584 65729 262744 84448 328280 393816	Address 254 192.168.0.48 192.168.0.244 192.168.0.244 192.168.0.244 192.168.0.48 192.168.0.48	Port COM4 10000 10000 10000 10000 10000	Protocol Modbus 485 TCP/IP TCP/IP TCP/IP TCP/IP TCP/IP	when discove T3 module, then close it
SLAW RESULT: Model T3-8A18AO6DO 5_Ethernet:65584-7-192.168.0 iniPanel:65729-1-192.168.0.2 TStat7:262744-4-192.168.0.48 atHUM:84448-250-192.168.0.48 TStat7:393816-6-192.168.0.48 TStat7:393816-6-192.168.0.48	Building fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Floor1 floor1 floor1 floor1 floor1 floor1 floor1 floor1 floor1 floor1	Room room1 room1 room1 room1 room1 room1 room1	Sub net fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi fault_Buildi	Serial# 0 65584 65729 262744 84448 328280 393816 131672	Address 254 192.168.0.48 192.168.0.244 192.168.0.48 192.168.0.48 192.168.0.48 192.168.0.48 192.168.0.48	Port COM4 10000 10000 10000 10000 10000 10000	Protocol Modbus 485 TCP/IP TCP/IP TCP/IP TCP/IP TCP/IP TCP/IP	when discove T3 module, then close it

4. Click T3E-886 log, it will show all the information of it.

ılt_Building->Default_Building			
Pefault_Building	ID Address 254 Chan	ge ID Serial Number 0	Go To Input
CHAMBER 7 MiniPanel:65669-254-192.168.0.14 MiniPanel:66779-254-192.168.0.3 MiniPanel:89995-254-192.168.0.8 PANEL48 PANEL48 262744 262744 328280 328280 3393816 66136 Com4 Com4 Com4 Remote Network Device	Firmware Version0.0Hardware Version8TCP/IP InfoIPIP ModelSTATIC ▼IP Address192 . 168 . 0 . 183Subnet Mask255 . 255 . 0Gateway Address192 . 168 . 0 . 4	Model T3-8AI8AO6DO PIC 0 Listening Port 10000 MAC Address: 04-02-35-AF-00-01 Apply	

5. Click input, it will show the view of all inputs.



Click input1 range, it will appear one pop up window, you can choose "pulse input", then click ok.

Label	Value	Range	Filter		
Input1	5.0 V	0-5V	5		
Input2	5.0 V	0-5V	5	/	
Input3	5.0 V	0-5V	5		
Input4	5.0 V	0-5V	5		
Input5	5.0 V	0-5V	5		
Input6	5.0 V	0-5V	5		
Input7	5.0 V	0-5V	5		
Input8	5.0 V	0-5V	5		_
	© 1.TYP	E2 10K C	1	0-57	
	1.TYPI	E2 10K C		8. TYPE3 10K C	
	C 2.TYP	E2 10K F			
	○ 3 0-10	10%		O 9. TIPES TOK P	
	0 3.0-10	70 70		10. NO USE	
	© 4.0N/	OFF		11.0-5V 11.0-5V	
	0 5.OFF	/ON		© 12.0-10V	
	O 6 Low	Speed Count)	🔘 13.0-20 ma	
	0				

Register List

T3E-22i Register List

Address	Num	Length	Description	Bacnet
0~3	1	4	Serial number	AV0
4	1	1	Firmware version number	AV1
5	1	1	software version number	AV2
6	1	1	modbus service address	AV3
7	1	1	product model	AV4
8	1	1	hardware version number	AV5
9~13	1	5	spare	
15	1	1	baudrate	AV6
16~39	0		spare	
40~45	1	6	Mac address. Read only	
46	1	1	DHCP setting. 0 = static 1=dynamic Read only	
47~50	1	4	Ip address Read only	
51~54	1	4	sub mask address Read only	
55~58	1	4	gateway address Read only	
59	1	1	tcp server Read only	
60	2	1	listen port Read only	
61	1	1	gost ip mode Read/Write	
62~65	1	4	gost Ip address Read/Write	
66~69	1	4	gost sub mask address Read/Write	
70~73	1	4	gost gateway address Read/Write	
74	1	1	gost tcp server Read/Write	
75	2	1	gost listen port Read/Write	
76	1	1	gost write gost value to sytem and refresh the the real parameter Read/Write	
77~99	0		spare	
100	2	1	Input1 high word	Al1
101	2	1	Input1 low word Input1: 2 registers, Value = Reg100 * 65535 + Reg 101 The A/D converer is 12 bits so for most ranges you can read reg101 only. For pulse counting use reg 100 and 101.	
102	2	1	Input2 . see input1 description for details	Al2
103	2	1		
104	2	1	Input3 . see input1 description for details	AI3
105	2	1		
106	2	1	Input4 . see input1 description for details	Al4
107	2	1		

T3E-22i Register List

Address	Num	Length	Description	Bacnet
108	2	1	Input5 . see input1 description for details	AI5
109	2	1		
110	2	1	Input6 . see input1 description for details	Al6
111	2	1		
112	2	1	Input7 . see input1 description for details	AI7
113	2	1		
114	2	1	Input8 . see input1 description for details	Al8
115	2	1		
116	2	1	Input9 . see input1 description for details	AI9
117	2	1		
118	2	1	Input10 . see input1 description for details	AI10
119	2	1		
120	2	1	Input11 . see input1 description for details	AI11
121	2	1		
122	2	1	Input12 . see input1 description for details	AI12
123	2	1		
124	2	1	Input13 . see input1 description for details	AI13
125	2	1		
126	2	1	Input14 . see input1 description for details	AI14
127	2	1		
128	2	1	Input15 . see input1 description for details	AI15
129	2	1		
130	2	1	Input16 . see input1 description for details	AI16
131	2	1		
132	2	1	Input17 . see input1 description for details	AI17
133	2	1		
134	2	1	Input18 . see input1 description for details	AI18
135	2	1		
136	2	1	Input19 . see input1 description for details	AI19
137	2	1		
138	2	1	Input20 . see input1 description for details	AI20
139	2	1		
140	2	1	Input21 . see input1 description for details	Al21
141	2	1		
142	2	1	Input22 . see input1 description for details	AI22
143	2	1		
144~199	0	1	spare	AV32
200~221	2	22	filter for input1~22	AV7~28

T3E-22i Register List

Address	Num	Length	Description	Bacnet
222~224	0		spare	
225~246	1	22	range for input1~22	AV29~50
247~249	0	spare		
250~271	2	22	offset for input1~22	AV51~72

T3E-886 Register List

Address	Num	Length	Description	Bacnet
0~3	1	4	Serial number	AV0
4	1	1	Firmware version number	AV1
5	1	1	software version number	AV2
6	1	1	modbus service address	AV3
7	1	1	product model	AV4
8	1	1	hardware version number	AV5
9~13	1	4	spare	
15	1	1	baudrate	AV6
16~39	0		spare	
40~45	1	6	Mac address. Read only	
46	1		Ip mode. 0 = static 1=dynamic Read only	
47~50	1	4	Ip address Read only	
51~54	1	4	sub mask address Read only	
55~58	1	4	gateway address Read only	
59	1	1	tcp server Read only	
60	2	1	listen port Read only	
61	1	1	gost ip mode Read/Write	
62~65	1	4	gost Ip address Read/Write	
66~69	1	4	gost sub mask address Read/Write	
70~73	1	4	gost gateway address Read/Write	
74	1	1	gost tcp server Read/Write	
75	2	1	gost listen port Read/Write	
76	1	1	gost write gost value to sytem and refresh the the real pa- rameter Read/Write	
77 to 99	0		spare	
100~107	2	8	analog output1~8	AO0~7
108~113	2		digit output1~6	BO1~6
114~115	2	2	switch bank1~2	AV7~8
116	2	2	analog input1	AI0
117]			
118	2	2	analog input2	AI1
119]			
120	2	2	analog input3	AI2
121	1			
122	2	2	analog input4	AI3
123]			
124	2	2	analog input5	Al4
125				

T3E-886 Register List

Address	Num	Length	Description	Bacnet
126	2		analog input6	AI5
127				
128	2		analog input7	Al6
129				
130	2		analog input8	AI7
131				
200~207	2	8	analog input1~8 filter	AV9~16
225~232	2	8	range for input1~8	AV17~24
250~257	2	8	offset for input1~8	AV25~32

T3E-32i Register List

Address	Num	Length	Description
0	1	4	Serial number
4	1	2	firmware Version
6	1	1	Modbus device address
7	1	1	Prodouct model
8	1	1	hardware version number
100	1	2	analog input 0 high byte
101	1	2	analog input 0 low byte
102	1	2	analog input 1 high byte
103	1	2	analog input 1 low byte
104	1	2	analog input 2 high byte
105	1	2	analog input 2 low byte
106	1	2	analog input 3 high byte
107	1	2	analog input 3 low byte
108	1	2	analog input 4 high byte
109	1	2	analog input 4 low byte
110	1	2	analog input 5 high byte
111	1	2	analog input 5 low byte
112	1	2	analog input 6 high byte
113	1	2	analog input 6 low byte
114	1	2	analog input 7 high byte
115	1	2	analog input 7 low byte
116	1	2	analog input 8 high byte
117	1	2	analog input 8 low byte
118	1	2	analog input 9 high byte
119	1	2	analog input 9 low byte
120	1	2	analog input 10 high byte
121	1	2	analog input 10 low byte
122	1	2	analog input 11 high byte
123	1	2	analog input 11 low byte
124	1	2	analog input 12 high byte
125	1	2	analog input 12 low byte
126	1	2	analog input 13 high byte
127	1	2	analog input 13 low byte
128	1	2	analog input 14 high byte
129	1	2	analog input 14 low byte
130	1	2	analog input 15 high byte
131	1	2	analog input 15 low byte
132	1	2	analog input 16 high byte
133	1	2	analog input 16 low byte

Address	Num	Length	Description
134	1	2	analog input 17 high byte
135	1	2	analog input 17 low byte
136	1	2	analog input 18 high byte
137	1	2	analog input 18 low byte
138	1	2	analog input 19 high byte
139	1	2	analog input 19 low byte
140	1	2	analog input 20 high byte
141	1	2	analog input 20 low byte
142	1	2	analog input 21 high byte
143	1	2	analog input 21 low byte
144	1	2	analog input 22 high byte
145	1	2	analog input 22 low byte
146	1	2	analog input 23 high byte
147	1	2	analog input 23 low byte
148	1	2	analog input 24 high byte
149	1	2	analog input 24 low byte
150	1	2	analog input 25 high byte
151	1	2	analog input 25 low byte
152	1	2	analog input 26 high byte
153	1	2	analog input 26 low byte
154	1	2	analog input 27 high byte
155	1	2	analog input 27 low byte
156	1	2	analog input 28 high byte
157	1	2	analog input 28 low byte
158	1	2	analog input 29 high byte
159	1	2	analog input 29 low byte
160	1	2	analog input 30 high byte
161	1	2	analog input 30 low byte
162	1	2	analog input 31 high byte
163	1	2	analog input 31 low byte
164	1	1	analog input 0 filter
165	1	1	analog input 1 filter
166	1	1	analog input 2 filter
167	1	1	analog input 3 filter
168	1	1	analog input 4 filter
169	1	1	analog input 5 filter
170	1	1	analog input 6 filter
171	1	1	analog input 7 filter
172	1	1	analog input 8 filter

Address	Num	Length	Description
197	1	1	analog input 1 range
198	1	1	analog input 2 range
199	1	1	analog input 3 range
200	1	1	analog input 4 range
201	1	1	analog input 5 range
202	1	1	analog input 6 range
203	1	1	analog input 7 range
204	1	1	analog input 8 range
205	1	1	analog input 9 range
206	1	1	analog input 10 range
207	1	1	analog input 11 range
208	1	1	analog input 12 range
209	1	1	analog input 13 range
210	1	1	analog input 14 range
211	1	1	analog input 15 range
212	1	1	analog input 16 range
213	1	1	analog input 17 range

*The register list is very long ,it can be downloaded as an excel spreadsheet(03ModbusBac netRegisterList.xls T3-32A_ARM) https://temcocontrols.com/ftp/software/

Set Up WIFI via T3000

Take an example of T3E-22i-W here, connect WIFI via T3000

1.Visit https://temcocontrols.com/ftp/software/09T3000Software.zip, download T3000 software and install it;

2.Start T3000 software,click 🔍 to scan

