

In This Appendix...

T1H-EBC(100) Analog Module Addressing - H2/4-ERM(100)E-2

T1H-EBC(100) Analog Module Addressing - H2/4-ERM(100)

When using an H2-ERM(100) or H4-ERM(100) to T1H-EBC(100) configuration, the analog module data in the EBC base is mapped to V-memory or Discrete I/O.

The ERM Workbench software will tell you what the mapping is for each I/O module in the T1H-EBC(100) base. Once you have configured the ERM using ERM Workbench you will get a screen similar to the following:

	ERM Module [00 E0	62 60 0D 29] - ERM W(orkbench				<
F	ile View Help						
Т	🗅 🖻 日 🧯 🎬	🗴 📲 🕪 🖨 🗐	?				_
÷			•				-
	Last ERM no Error:	er H4-ERM Ether PLC CPU error PLC Mode RM Status Time o last read	F 12:27:09	Slave S 1 9 Click to		12 13 14 15 16 bove Slave 1 - no error 3. Write to ERM	
	1/0 Module	1/0 Points	PLC Start	PLC End	V-Map	Notes	
		Slave Status Bits	X300	X317	V40414	Notes	
	(ICSCIVED)	ERM Status Word	×320	X337	V40414		
		Disable Slave Comm	Y300		V40514		
L	Slave 1	T1H-EBC100				hotswap(auto);Ethernet Address[00 E0 62 40 22 9F] on	
L	Slave 1/Slot 1	16 Double Word Input	V2000	V2037		32-bit Binary;	
	Slave 1/Slot 2	16 Double Word Out	V2100	V2137		32-bit Binary;	
L		8 Discrete Output	Y320	Y327	V40515	0010.01	
L	Slave 1/Slot 3	8 Double Word Input 4 Double Word Output	V2040 V2140	V2057 V2147		32-bit Binary; 32-bit Binary;	
L		8 Discrete Output	V2140 Y330	Y2147 Y337	V40515	32-bit binaly;	
L	Slave 1/Slot 4	8 Double Word Input	V2060	V2077	V40010	32-bit Binary:	
L	Slave 1/Slot 5	8 Double Word Output	V2150	V2167		32-bit Binary:	
L		8 Discrete Output	Y340	Y347	V40516		
L	Slave 1/Slot 6	8 Discrete Input	×340	X347	V40416		
L	Slave 1/Slot 7	8 Discrete Output	Y350	Y357	V40516		
L							
Re	eady					Read ERM Status : AUTO MODIFIED NUM	//.

For the example above, the I/O configuration for Slave 1 is:

Slot 1 = T1F-14THM Slot 2 = T1F-16DA-2 Slot 3 = T1F-8AD2DA-2 Slot 4 = T1F-08AD-2 Slot 5 = T1F-08DA-2 Slot 6 = T1K-08NA-1 Slot 7 = T1K-08TR

Use the addresses shown in the ERM Workbench along with the following table to access the analog I/O with your ERM master.

	T1H-EBC(100)) Analog Module Addressing - H2/4-	ERM(100)
Part Number	Channel Data	Module Configuration Data	Diagnostics Data
T1F-08AD-1	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4 V+10 = Ch5 V+12 = Ch6 V+14 = Ch7 V+16 = Ch8	No Software Configuration Input Range Depends on Input Signal: -20 to 20mA = -8192 to 8191 0 to 20mA = 0 to 8191 4 to 20mA = 1638 to 8191	No Built-In Broken Transmitter Detection Monitor for counts less than 1638 when using 4 to 20mA
T1F-08AD-2	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4 V+10 = Ch5 V+12 = Ch6 V+14 = Ch7 V+16 = Ch8	No Software Configuration Input Range Depends on Input Signal: 0 to $5V = 0$ to 4095 0 to $10V = 0$ to 8191 +/-5V = -4095 to 4095 +/-10V = -8192 to 8191	No Broken Transmitter Detection (N/A for Voltage)
T1F-16AD-1	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+34 = Ch15 V+36 = Ch16	No Software Configuration Input Range Depends on Input Signal: -20 to 20mA = -8192 to 8191 0 to 20mA = 0 to 8191 4 to 20mA = 1638 to 8191	No Built-In Broken Transmitter Detection Monitor for counts less than 1638 when using 4 to 20mA
T1F-16AD-2	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+34 = Ch15 V+36 = Ch16	No Software Configuration Input Range Depends on Input Signal: 0 to 5V = 0 to 4095 0 to 10V = 0 to 8191 +/-5V = -4095 to 4095 +/-10V = -8192 to 8191	No Broken Transmitter Detection (N/A for Voltage)
T1F-14THM	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+32 = Ch14 V+34 = Status 1 V+36 = Status 2 Status info is only available if T1F- 14THM is date code 1205 or later	No Software Configuration THM Type Set by Jumpers Status 1 Data Number of Channels Bits 0-3 Number of Channels Bits 0-3 0001 = All Channels 1110 = One Channel 1110 = One Channel Bit 4 T/C Type Jumper 0 0=installed, 1=removed 1=removed Bit 5 T/C Type Jumper 1 Bit 6 T/C Type Jumper 2 Bit 7 T/C Type Jumper 3 Bit 8 Units 0 Jumper Bit 9 Units 1 Jumper Bit 10 Calibrate Enable Jumper Bit 11 CJC Installed 0=Yes, 1=No Bits 12,13 Always ON Bits 14, 15 Always OFF Status 2 Data is the Temperature of the CJC with one implied decimal place.	Broken Thermocouple Indication. The channel data goes to zero and ERM Workbench 'Slave Error List' shows error in 'Extended Error column.

	T1H-EBC	(100) Anal	og Module Addressing - H2/4-	ERM(100)
Part Number	Channel Data	Μ	odule Configuration Data	Diagnostics Data
T1F-16RTD	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+34 = Ch15 V+36 = Ch16		No Software Configuration RTD Type Set by Jumpers	Broken RTD Indication. The channel data goes to zero and ERM Workbench 'Slave Error List' shows error in 'Extended Error' column.
T1F-8AD4DA-1	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4 V+10 = Ch5 V+12 = Ch6 V+14 = Ch7 V+16 = Ch8 Output Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4	Y+0 Y+1 Y+2 Y+3 Y+4 to Y+7 Input	Atput Configuration (T1F-8AD4DA-1) Output Enable 0: Outputs OFF 1: Outputs Enabled N/A N/A 0-20mA or 4-20mA 0: 0-20mA range 1: 4-20mA range Reserved Range Depends on Input Signal: 20 to 20mA = -8192 to 8191	No Built-In Broken Transmitter Detection Monitor for counts less than 1638 when using 4 to 20mA
T1F-8AD4DA-2	Input Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4 V+10 = Ch5 V+12 = Ch6 V+14 = Ch7 V+16 = Ch8 Output Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4	Analog Ou Y+0 Y+1 Y+2 Y+3 Y+4 to Y+7	0 to 20mA = 0 to 8191 4 to 20mA = 1638 to 8191 Itput Configuration (T1F-8AD4DA-2) Output Enable 0: Outputs OFF 1: Outputs Enabled Unipolar/Bipolar 0: Unipolar 1: Bipolar 5V/10V Range 0: 5V Range 1: 10V Range 0: 5V Range 1: 10V Range N/A Reserved Range Depends on Input Signal: 0 to 5V = 0 to 4095 0 to 10V = 0 to 8191 +/-5V = -4095 to 4095 +/-10V = -8192 to 8191	No Broken Transmitter Detection (N/A for Voltage)
T1F-08DA-1	Output Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3 V+6 = Ch4 V+10 = Ch5 V+12 = Ch6 V+14 = Ch7 V+16 = Ch8	Analog (Y+0 Y+1 Y+2 Y+3 Y+4 to Y+7	Dutput Configuration (T1F-08DA-1) Output Enable 0: Outputs OFF 1: Outputs Enabled N/A N/A 0-20mA or 4-20mA 0: 0-20mA range 1: 4-20mA range Reserved	- None

E-4

	T1H-EBC(*	100) Analog N	lodule Addressing - H2/4-ERN	l(100)
Part Number	Channel Data	Mod	ule Configuration Data	Diagnostics Data
		Analog Out	put Configuration (T1F-08DA-2)	
	Output Data V+0 = Ch1	Y+0	Output Enable 0: Outputs OFF 1: Outputs Enabled	
T1F-08DA-2	V+2 = Ch2 V+4 = Ch3 V+6 = Ch4 V+10 = Ch5	Y+1	Unipolar/Bipolar 0: Unipolar 1: Bipolar	None
	V+12 = Ch6 V+14 = Ch7 V+16 = Ch8	Y+2	5V/10V Range 0: 5V Range 1: 10V Range	
		Y+3	N/A	
		Y+4 to Y+7	Reserved	
		Analog Out	put Configuration (T1F-16DA-1)	
	Output Data	Y+0	Output Enable 0: Outputs OFF 1: Outputs Enabled	
	V+0 = Ch1 V+2 = Ch2	Y+1	N/A	
T1F-16DA-1	V+4 = Ch3	Y+2	N/A	None
	V+34 = Ch15 V+36 = Ch16	Y+3	0-20mA or 4-20mA 0: 0-20mA range 1: 4-20mA range	
		Y+4 to Y+7	Reserved	
		Analog Out	put Configuration (T1F-16DA-2)	
		Y+0	Output Enable 0: Outputs OFF 1: Outputs Enabled	
T1F-16DA-2	Output Data V+0 = Ch1 V+2 = Ch2 V+4 = Ch3	Y+1	Unipolar/Bipolar 0: Unipolar 1: Bipolar	None
	V+34 = Ch15 V+36 = Ch16	Y+2	5V/10V Range 0: 5V Range 1: 10V Range	
		Y+3	N/A	
		Y+4 to Y+7	Reserved	

T1F-14THM Example (Module in Slot 1)

Using ERM Workbench (below) and the 'T1H-EBC(100) Analog Module Addressing -H2/4-ERM(100) chart above, we can find all of the addresses associated with the T1F-14THM module in Slot 1. The addresses are listed in the tables below.

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Ethernet Remote N	faster H4-ERM	— Ethernet Addre	ss: 00 E0 62 6	1 0D 29	P 192168 014	7 Module ID: 47	
		Ethomotridan			1 132.100. 0.14		1. <u>C</u> onfigure ERM
CPU Interface:	PLC	CPU: 44)	2 3	4 5	6 7 8	
		C Mode: Ru		2 3	4 0	0 7 0	2. <u>S</u> elect Slaves
Last ERM	no error PL	LC Mode: Hu	9	10 11	12 13	14 15 16	
Error:	H	lit [Read ERM St			, Slav	e 1 - no error	3. Write to ERM
1		button to refres		on slave # a see its Last	10076	e i · no enoi	
Be	ad ERM Status	Time of 15:05		SEE ILS LOSI			
<u> </u>		last read:				and the management of a	1
Detail	ed ERM Status		Liea	r <u>L</u> ast Error 9		ave 1's <u>E</u> rror List	
				([
I/O Module	1/0 Points	PLCS			Notes		
I/O Module <reserved></reserved>	Slave Status B	its X	300 X317	V40414	Notes		
	Slave Status B ERM Status W	its X ′ord X	300 X317 320 X337	V40414 V40415	Notes		
<reserved></reserved>	Slave Status B ERM Status W Disable Slave (its X ′ord X	300 X317 320 X337	V40414			0.62.40.22.951 er
<reserved></reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100	its X ′ord X Comm Y	300 ×317 320 ×337 300 ×337	V40414 V40415	hotswap(auto);El	hemet Address[00 E	0 62 40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor	its X ′ord X Comm Y rd Input V2	300 ×317 320 ×337 300 ×317 300 ×317	V40414 V40415	hotswap(auto);El 32-bit Binary;	hernet Address[00 E	0 62 40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 16 Double Wor	its X 'ord X Comm Y rd Input V2 rd Out V2	300 X317 320 X337 300 Y317 300 V2037 100 V2037	V40414 V40415 V40514	hotswap(auto);El	hemet Address[00 E	0 62 40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wo 16 Double Wo 8 Discrete Outp	its X Yord X Comm Y rd Input V2 rd Out V2 put Y	800 X317 820 X337 800 Y317 900 V2037 900 V2137 820 Y327	V40414 V40415	hotswap(auto);El 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 16 Double Wor 8 Discrete Outp 8 Discrete Outp	its X Yord X Comm Y rd Input V2 rd Out V2 put Y d Input V2	300 X317 320 X337 300 Y317 300 V2037 100 V2137 320 Y317 340 V2137 320 Y327 340 V2057	V40414 V40415 V40514	hotswap(auto);El 32-bit Binary; 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 9FJ on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 8 Discrete Outp 8 Double Worc 4 Double Worc	its X 'ord X Comm Y rd Input V2 rd Dut V2 put V2 Hoput V2 Hoput V2	300 X317 320 X337 300 Y317 300 V2037 100 V2137 320 Y327 140 V2057 140 V2147	V40414 V40415 V40514 V40515	hotswap(auto);El 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 8 Discrete Outp 8 Double Word 4 Double Word 8 Discrete Outp 8 Discrete Outp	its X 'ord X Comm Y rd Input V2 rd Dut V2 put Y2 J Input V2 J Output V2 put Y	300 X317 320 X337 300 Y317 300 V2037 100 V2137 320 Y327 320 V2037 320 V2137 320 Y327 340 V2057 140 V2147 330 Y337	V40414 V40415 V40514	hotswap(auto);El 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 SF] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3 Slave 1/Slot 4</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 8 Discrete Out 8 Double Worc 8 Discrete Out 8 Discrete Out 8 Double Worc	its X 'ord X Comm Y rd Input V2 rd Out V2 put Y J Input V2 d Output V2 d Output V2 d Output V2 d Input V2	300 X317 320 X337 300 Y317 300 V2037 100 V2137 320 Y327 320 Y327 140 V2057 330 Y337 360 V2057	V40414 V40415 V40514 V40515	hotswap(auto);Ei 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 9FJ on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3 Slave 1/Slot 4</reserved>	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 8 Discrete Outp 8 Double Worc 8 Discrete Outp 8 Double Worc 8 Double Worc 8 Double Worc	its X ford X Comm Y rd Input V2 put V2 I Input V2 I Output V2 I Output V2 I Input V2 I Input V2 I Input V2	300 X317 320 X337 300 Y317 300 V2137 300 V2137 320 Y327 320 Y327 340 V2037 340 V2037 340 V2057 340 V2057 340 V2147 330 Y337 960 V2077 50 V2167	V40414 V40415 V40514 V40515	hotswap(auto);El 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 9F] on
	Slave Status B ERM Status W Disable Slave (T1H-EBC100 16 Double Wor 8 Discrete Out 8 Double Worc 8 Discrete Out 8 Discrete Out 8 Double Worc	its X ford X Comm Y rd Input V2 rd Input V2 Input V2 I Output V2 I Output V2 I Output V2 I Output V2 I Output V2 I Output Y2 I Output	300 X317 320 X337 300 Y317 300 V2137 300 V2137 320 Y327 320 Y327 340 V2037 340 V2037 340 V2057 340 V2057 340 V2147 330 Y337 960 V2077 50 V2167	V40414 V40415 V40514 V40515	hotswap(auto);Ei 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	hernet Address[00 E	0 62 40 22 SF] on

Input Channel	Address
Channel 1 Temperature	V2000
Channel 2 Temperature	V2002
Channel 3 Temperature	V2004
Channel 4 Temperature	V2006
Channel 5 Temperature	V2010
Channel 6 Temperature	V2012
Channel 7 Temperature	V2014
Channel 8 Temperature	V2016
Channel 9 Temperature	V2020
Channel 10 Temperature	V2022
Channel 11 Temperature	V2024
Channel 12 Temperature	V2026
Channel 13 Temperature	V2030
Channel 14 Temperature	V2032
Status Words	Address
Status1	V2034
CJC Temperature	V2036

In this example, 24VDC is applied to the T1F-14THM in Slave 1 Slot 1 and all channels are shorted CH+ to CH-. As seen in the DirectSoft Data View window below, all channels will read the terminal block ambient temperature when shorted (degrees F in this configuration). All V-memory values in this DirectSoft Data View window are displayed as Decimal DWORDs except V2034 which is displayed as a Binary WORD.

V2036 is the CJC temperature reading in degrees C with one implied decimal place. So 27.2° C = 80.9° F.

Dat	al	
El	Decimal 💌	DWORD -
	Element	Status
1		
2	V2000	806
3	V2002	809
4	V2004	811
5	V2006	815
6	V2010	811
7	V2012	819
8	V2014	821
9	V2016	813
10	V2020	799
11	V2022	803
12	V2024	805
13	V2026	809
14	V2030	806
15	V2032	788
16	V2034	0011010000000001
17	V2036	272

N	2034 Status 1 Word
Bits 0-3	All Channels Enabled (0001)
Bit 4	T/C Type Jumper 0 Installed (0)
Bit 5	T/C Type Jumper 1 Installed (0)
Bit 6	T/C Type Jumper 2 Installed (0)
Bit 7	T/C Type Jumper 3 Installed (0)
Bit 8	Units 0 Jumper Installed (0)
Bit 9	Units 1 Jumper Installed (0)
Bit 10	Calibrate Enable Jumper Removed (1)
Bit 11	CJC Installed Yes (0)
Bits 12,13	Always ON
3its 14, 15	Always OFF

T1F-14THM Example (Broken Thermocouple)

In this example, 24VDC is applied to the T1F-14THM in Slave 1 Slot 1 and all channels are shorted CH+ to CH- except Channel 8 which is open.

			1				1		
Data	1								
El	Binary	▼ WORD			А	s seer	ı in tl	he DirectSoft Data V	iew window, al
_	Fle	ment	Status	3				ll read the terminal b	,
1	2.0		0.0.0	-	_				
2	√2	000	807					when shorted (degr	
3		002	810		C	onfigi	iratio	on) except the open (Channel 8 which
4		004	812		re	eads 0).		
5		006	815						
5		010	812						
7		012	820						
_									
8		014	821		- T	he El	RM V	Workbench page will	also indicate ar
9	_	016	0					ve 1 as seen below.	
10		020	801			101 0	11 01a	ve i as seen below.	
11	V2	022	804 ile [00 E0 62 60 0D 29	1 - EDM Wo	rkbench		_		_ 🗆 ×
2		File View H		J- EK-I WU	rkbench				
3	∨2	.02 🗅 🖻 🕞	· · · · · · · · · · · · · · · · · · · ·	6	?	1			
4	∨2								
5	∨2	.0.	emote Master H4-ERM	M Ethern	et Address: (DO EO 62 60 SN /e S		P: 192.168. 0.147 - Module ID: 47 -	1. <u>C</u> onfigure ERM
6	∨2	03 CPU Interface:	PLC	CPU:	440	1		4 5 6 7 8	2. Calant Clause
7	∨2	Edox Er mi		PLC Mode:	Run	9	10 11	12 13 14 15 16	2. Select Slaves
		Error			ERM Status] to refresh	Click	on slave # a	bove Slave 1 - no error	3. Write to ERM
			Read ERM Status	Time of	15:05:45		see its Last		
				last read:	10.00.40	Clear	Last Error S	Slave 1 Slave 1's Error List	
			Detailed ERM Status						
		I/O Module <reserved></reserved>	I/O Points	us Bits	PLC Start ×300	PLC End X317	V-Map V40414	Notes	
			ERM Statu Disable Sta	is Word ive Comm	X320 Y300		V40415 V40514		
		Slave 1	T1H-EBC1	00			140314	hotswap(auto);Ethernet Address[00 E0 62 4	0 22 9F] on
		Slave 1/Slo Slave 1/Slo		Word Input Word Out	V2000 V2100	V2037 V2137		32-bit Binary; 32-bit Binary;	
			8 Discrete	Output	Y320	Y327	V40515		
		Slave 1/Slo		Vord Input Vord Output	V2040 V2140	V2057 V2147		32-bit Binary; 32-bit Binary;	
		Slave 1/Slo	8 Discrete at 4 8 Double V		Y330 V2060	Y337 V2077	V40515	32-bit Binary;	
		Slave 1/Slo	it 5 8 Double V	Vord Output	V2150	V2167		32-bit Binary; 32-bit Binary;	
		Slave 1/Slo	8 Discrete at 6 8 Discrete		Y340 X340		V40516 V40416		
		Slave 1/Slo			Y350		V40416		
) Dearth						Dead EDM Chakus - MANUAL	
		Ready						Read ERM Status : MANUAL MOI	DIFIED NUM ///

T1F-16DA-2 Example (Module in Slot 2)

) 📽 🖪 🎪 🛛	š 🤘 🔸 🚺	8 🗆	8							
Ethernet Remote M CPU Interface: Last ERM Error:	Aster H4-ERM PLC no error	CPU: PLC Mode: Hit [Read]	440	00 E0 62 60 Slave S 1 9 Click		4	0.147 Module ID: 5 6 7 3 14 15 Slave 1 - no error	8	2. <u>S</u> elec	gure ERM t Slaves to ERM
	d ERM Status ed ERM Status	Time of last read:			see its Last r <u>L</u> ast Error 9		Slave 1's <u>E</u> rror Lis	ŧ		
1/0 Module	I/0 Points		PLC Start	PLC End	V-Map	Notes				1
I/O Module <reserved></reserved>	Slave Statu ERM Statu:	s Word	PLC Start X300 X320 Y300		V40414 V40415	Notes				
<reserved></reserved>	Slave Statu	s Word ve Comm	X300	X317 X337	V40414		to);Ethernet Address	{00 E0 62 40) 22 9F] on	
<reserved> Slave 1 Slave 1/Slot 1</reserved>	Slave Statu ERM Statu: Disable Sla T1H-EBC10 16 Double V	s Word ve Comm 00 Word Input	X300 X320 Y300 V2000	X317 X337 Y317 V2037	V40414 V40415			(00 E0 62 40) 22 9F] on	
<reserved> Slave 1 Slave 1/Slot 1</reserved>	Slave Statu ERM Statu: Disable Sla T1H-EBC1(16 Double \ 16 Double \	s Word ve Comm 00 Word Input Word Out	×300 ×320 ¥300 V2000 V2100	X317 X337 Y317 V2037 V2137	V40414 V40415 V40514	hotswap(au	8	(00 E0 62 40) 22 9F] on	
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Statu ERM Statu: Disable Sla T1H-EBC1(16 Double \ 16 Double \ 8 Discrete (s Word ve Comm 00 Word Input Word Out Dutput	X300 X320 Y300 V2000 V2100 Y320	X317 X337 Y317 V2037 V2137 Y327	V40414 V40415	hotswap(au 32-bit Binar 32-bit Binar	e e	(00 E0 62 40) 22 9F] on	, ,
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Statu ERM Statu: Disable Sla T1H-EBC1(16 Double \ 16 Double \ 8 Discrete (8 Double \	s Word ve Comm 00 Word Input Word Out Dutput /ord Input	X300 X320 Y300 V2000 V2100 Y320 V2040	X317 X337 Y317 V2037 V2137 Y327 V2057	V40414 V40415 V40514	hotswap(au 32-bit Binar 32-bit Binar 32-bit Binar	o o o	(00 E0 62 40) 22 9F] on	
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Statu ERM Statu: Disable Sla T1H-EBCI0 16 Double 1 8 Discrete (8 Double W 4 Double W	s Word ve Comm 00 Word Input Word Out Dutput /ord Input /ord Output	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140	X317 X337 Y317 V2037 V2137 Y327 V2057 V2147	V40414 V40415 V40514 V40515	hotswap(au 32-bit Binar 32-bit Binar	o o o	(00 E0 62 40) 22 9F] on	
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3</reserved>	Slave Statu ERM Statu Disable Sla T1H-EBC1(16 Double \ 8 Discrete (8 Double \ 4 Double \ 8 Discrete (s Word ve Comm 00 Word Input Word Out Dutput /ord Input /ord Output Dutput	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140 Y330	X317 X337 Y317 V2037 V2137 Y327 V2057 V2057 V2147 Y337	V40414 V40415 V40514	hotswap(au 32-bit Binar 32-bit Binar 32-bit Binar 32-bit Binar		(00 E0 62 40) 22 9F] on	
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3 Slave 1/Slot 4</reserved>	Slave Statu ERM Statu: Disable Sla T1H-EBC1(16 Double \ 8 Discrete (8 Double \ 4 Double \ 8 Discrete (8 Double \ 8 Discrete (8 Double \	s Word ve Comm 00 Word Input Word Out Dutput /ord Input /ord Output Dutput /ord Input	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140 Y330 V2060	X317 X337 Y317 V2037 V2137 Y327 V2057 V2147 Y337 V2077	V40414 V40415 V40514 V40515	hotswap(au 32-bit Binar 32-bit Binar 32-bit Binar 32-bit Binar 32-bit Binar	6 6 6	(00 E0 62 40) 22 9F) on	
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3 Slave 1/Slot 4</reserved>	Slave Statu ERM Statu Disable Sla T1H-EBC1 16 Double ¹ 8 Discrete (8 Double W 4 Double W 8 Discrete (8 Double W 8 Double W 8 Double W	s Word ve Comm 00 Word Input Word Dut Dutput /ord Input /ord Output Dutput /ord Input /ord Output	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140 Y330 V2060 V2150	X317 X337 Y317 V2037 V2137 V2057 V2147 Y337 V2077 V2077 V2167	V40414 V40415 V40514 V40515	hotswap(au 32-bit Binar 32-bit Binar 32-bit Binar 32-bit Binar	6 6 6	(00 E0 62 40) 22 9F] on	<u>I</u>
	Slave Statu ERM Statu: Disable Sla T1H-EBC1(16 Double \ 8 Discrete (8 Double \ 4 Double \ 8 Discrete (8 Double \ 8 Discrete (8 Double \	s Word ve Comm D0 Word Input Word Dut Jutput /ord Input /ord Output Jord Input /ord Output /ord Output Jutput	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140 Y330 V2060	X317 X337 Y317 V2037 V2137 V2057 V2147 Y337 V2077 V2077 V2167	V40414 V40415 V40514 V40515	hotswap(au 32-bit Binar 32-bit Binar 32-bit Binar 32-bit Binar 32-bit Binar	6 6 6	(00 E0 62 40) 22 9F] on	

In this example, 24VDC is applied to the T1F-16DA-2 in Slave 1 Slot 2 and a multi-meter is used to measure the output. The outputs are enabled and configured for -5 to +5V range.

All V-memory values in this DirectSoft Data View window are displayed as Decimal DWORDs.

Data	ə1			Output Channel	Address	Value	Discrete Bits	Value
E	Decimal 💌	DWORD .	- D 騙	•				
, –	Element	 Status	Edits	Channel 1	V2100	0 = -5V	Y320	ON for Output Enable
1	V2100	0	0	Channel 2	V2102	270 = -4.34V	Y321	ON selects Bipolar output
2	V2102	270	270	Channel 2	V2104	525 = -3.71V		· ·
	V2104	525	525	Channel 3	VZ104	525 = -5.71V	Y322	OFF selects
4	V2106	780	780	Channel 4	V2106	780 = -3.09V		5V output range
5	V2110	1035	1035				Y323 to Y327	N/A
6	V2112	1545	1545	Channel 5	V2110	1035 = -2.47V		
7	V2114 V2116	1800 2055	1800 2055	Channel 6	V2112	1545 = -1.22V		
8	V2116 V2120	2055	2055	onamici o				
9 10	V2120	2565	2565	Channel 7	V2114	1800 = -0.60V		
11	V2124	2820	2820	Channel 8	V2116	2055 = 0.01V		
12	V2126	3075	3075	Ghaintei o	VZIIO	2000 = 0.010		
12 13	V2130	3330	3330	Channel 9	V2120	2310 = 0.64V		
14	V2132	3585	3585	Channel 10	V2122	2565 = 1.26V		
15	V2134	3840	3840	Ghaintei Tu	VZIZZ	2303 = 1.200		
14 15 16 17 18	V2136	4095	4095	Channel 11	V2124	2820 = 1.88V		
17	Y320	DN	ON OFF	Channel 12	V2126	3075 = 2.50V		
18	Y321	DN	ON OFF					
19 20	Y322	OFF	ON OFF	Channel 13	V2130	3330 = 3.13V		
20	Y323	OFF	ON OFF	Channel 14	V2132	3585 = 3.75V		
21	Y324	OFF	ON OFF					
22	Y325	OFF	ON OFF	Channel 15	V2134	3840 = 4.37V		
23 24	Y326	OFF	ON OFF	Channel 16	V2136	4095 = 5V		
24	Y327	OFF	ON OFF					

T1F-08AD-2 Example (Module in Slot 4)

: ⊻iew <u>H</u> elp							
) 🗃 🖪 🧯 🖁	š 🤘 🔸 🕅		?				
Ethernet Remote M	aster H4-EF	M Ethern	et Address:	00 E0 62 60		P: 192.168. 0.147 Module ID: 47	
CPU				Slave S			1. <u>C</u> onfigure ERM
Interface:	PLC	CPU:	440	1	2 3	4 5 6 7 8	
Last ERM	no error	PLC Mode:	Bun				2. <u>S</u> elect Slaves
Error:		10.00		9	10 11	12 13 14 15 16	3. Write to ERM
			ERM Status] to refresh		on slave # a		3. <u>W</u> INE TO EITIM
		Time of	45.05.45	to	see its Last	Error:	
<u>H</u> ea	d ERM Status	last read:	15:05:45			· · · · · · · · · · · · · · · · · · ·	
Detaile	d ERM Status	1		Clea	r <u>L</u> ast Error 9	ilave 1 Slave 1's Error List	
				-			
	1						
I/O Module	I/O Points		PLC Start	PLC End		Notes	
I/O Module <reserved></reserved>	Slave Sta	tus Bits	×300	X317	V40414	Notes	
	Slave Sta ERM Stat	tus Bits us Word	×300 ×320	X317 X337	V40414 V40415	Notes	
<reserved></reserved>	Slave Sta ERM Stat Disable S	tus Bits us Word lave Comm	×300	X317 X337	V40414	1	40.22.9E1.on
<reserved></reserved>	Slave Sta ERM Stat Disable S T1H-EBC	tus Bits us Word lave Comm 100	×300 ×320 ¥300	X317 X337 Y317	V40414 V40415	, hotswap(auto);Ethernet Address[00 E0 62 -	40 22 9F) on
<reserved> Slave 1 Slave 1/Slot 1</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double	tus Bits us Word lave Comm	×300 ×320	X317 X337	V40414 V40415	1	40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double	tus Bits us Word lave Comm 100 e Word Input e Word Out	×300 ×320 ¥300 V2000	X317 X337 Y317 V2037	V40414 V40415 V40514	, hotswap(auto);Ethernet Address[00 E0 62 - 32-bit Binary;	40 22 9F] on
	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 16 Double 8 Discrete	tus Bits us Word lave Comm 100 e Word Input e Word Out	×300 ×320 ¥300 V2000 V2100	X317 X337 Y317 V2037 V2137	V40414 V40415 V40514	, hotswap(auto);Ethernet Address[00 E0 62 - 32-bit Binary;	40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 8 Discrete 8 Double	tus Bits us Word lave Comm 100 e Word Input e Word Dut e Output	X300 X320 Y300 V2000 V2100 Y320	X317 X337 Y317 V2037 V2137 Y327	V40414 V40415 V40514	, hotswap(auto);Ethernet Address[00 E0 62 - 32-bit Binary; 32-bit Binary;	40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 8 Discrete 8 Double	tus Bits us Word lave Comm 100 e Word Input e Word Out o Output Word Input Word Output	X300 X320 Y300 V2000 V2100 Y320 V2040	X317 X337 Y317 V2037 V2137 Y327 V2057	V40414 V40415 V40514	hotswap(auto);Ethernet Address[00 E0 62 - 32-bit Binay; 32-bit Binay; 32-bit Binay;	40 22 SF] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 8 Discrete 8 Double 8 Double 8 Discrete	tus Bits us Word lave Comm 100 e Word Input e Word Out o Output Word Input Word Output	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140	X317 X337 Y317 V2037 V2137 Y327 V2057 V2057 V2147	V40414 V40415 V40514 V40515	hotswap(auto);Ethernet Address[00 E0 62 - 32-bit Binay; 32-bit Binay; 32-bit Binay;	40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 8 Discrete 8 Double 8 Discrete 8 Discrete 8 Discrete 8 Discrete 8 Double	tus Bits us Word lave Comm 100 s Word Input s Output Word Input Word Output s Output	X300 X320 Y300 V2000 V2100 Y320 V2040 V2040 V2140 Y330	X317 X337 Y317 V2037 V2137 Y327 V2057 V2057 V2147 Y337	V40414 V40415 V40514 V40515	hotswap(auto);Ethernet Address[00 E0 62 - 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3 Slave 1/Slot 4</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 8 Discrete 8 Double 8 Discrete 8 Discrete 8 Discrete 8 Discrete 8 Double	tus Bits us Word lave Comm 100 s Word Input s Word Output word Input Word Output s Output Word Input Word Output	X300 X320 Y300 V2100 V2100 V2040 V2040 V2140 Y330 V2060	X317 X337 Y317 V2037 V2137 Y327 V2057 V2147 Y337 V2077	V40414 V40415 V40514 V40515	hotswap(auto),Ethernet Address[00 E0 62 - 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	40 22 9F] on
<reserved> Slave 1 Slave 1/Slot 1 Slave 1/Slot 2 Slave 1/Slot 3 Slave 1/Slot 4</reserved>	Slave Sta ERM Stat Disable S T1H-EBC 16 Double 8 Discrete 8 Double 8 Discrete 8 Double 8 Double 8 Double	tus Bits us Word lave Comm 100 s Word Input s Word Input Word Input Word Unput Word Unput Word Output s Output Word Output s Output	X300 X320 Y300 V2000 V2100 Y320 V2040 V2140 Y330 V2060 V2050	X317 X337 Y317 V2037 V2137 V2057 V2147 Y337 V2077 V2077 V2167	V40414 V40415 V40514 V40515	hotswap(auto),Ethernet Address[00 E0 62 - 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary; 32-bit Binary;	40 22 9F] on

In this example, 24VDC is applied to the T1F-08AD-2 in Slave 1 Slot 4. Voltage is applied to all eight channels.

V2060 and V2062 are displayed as both Signed Decimal DWORD and BCD/Hex DWORD in this DirectSoft Data View. V2064-V2076 are displayed as Signed Decimal DWORD.

Data3			Input Channel	Address	Value	
EI BCD/Hex DWORD				Channel 1	V2060	-4097 = -5V
1	Element V2060	Status -4097		Channel 2	V2062	-4097 = -5V
2		FFFFEFFF		Channel 3	V2064	1 = 0V
3		-4097		Channel 4	V2066	1 = 0V
4	√2062 √2064	FFFFEFFF 1		Channel 5	V2070	4097 = 5V
6	∨2066	1		Channel 6	V2070	4097 = 5V
7		4097 4097				
9		8190		Channel 7	V2074	8190 = 10V
10	∨2076	8191		Channel 8	V2076	8190 = 10V

Notes: