



Package Contents:

- GPX-32
- Power Cable
- GPX-32 Installation CD
- Setup Guide (this manual)

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Back Panel Layout

Back Panel Layout



Installing Your GPX-32 -- Installing the Configuration Software

Installing Your GPX-32

Mount the GPX-32 into the desired location and connect the Ethernet and Power cables to the unit. The GPX-32 does not have a power switch and as such is always on, once power has been applied. The GPX-32 employs a switching power supply and will accept mains power from 110-220VAC.

If you are using a DC power source, in place of mains power, please connect this now, taking special care to correctly orientate the positive and negative inputs.

Note: Incorrectly connecting the DC power source will void the unit warranty. In addition the DC power source should be certified with an available power output of less than 240 VA.

Check that both the Power LED on the front panel of the unit and the Ethernet link LED, on the rear of the unit are illuminated before proceeding. If either LED's are not lit please re-check your connections.

Installing the Configuration software

Note:

The DeviceInstaller software requires Microsoft's .NET Framework version 2.0. If you do not already have the .NET Framework installed, It can be installed by running dontnetfx.exe, from the GPX-32 Installation CD-ROM.

Insert the GPX-32 Installation CD-ROM into your computer's CD-ROM drive. If setup doesn't launch automatically, you can launch it manually by clicking Start, then *Run*... When the Run dialog opens, type

d:\setup.exe (where "d" is the drive letter for your CD-ROM). Press *OK* to continue.

Run	<u>?</u> ×
-	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	d:\setup.exe
	OK Cancel <u>B</u> rowse

Installing the Configuration Software

Change the path to where you would like the software to be installed, or leave as default and press *Next* to continue.



Press *Next* on this screen to start the install process.

Installing the Configuration Software

Lantronix DeviceInstaller 4.2.0.0		
Confirm Installation		
The installer is ready to install Lantronix DeviceInstaller 4.2.0.0 on your computer. Click "Next" to start the installation.		
Cancel < <u>B</u> ack	<u>N</u> ext >	

If you are ready to complete the installation press *Next* to proceed. You can press *Back* to change the location of the files or *Cancel* to stop the install.

When installation is complete, you may *Close* the installation window.



Assigning an IP Address

Assigning an IP address

Before you can use the GPX-32, you must first assign the unit a static IP address. This is done using the Configuration software installed in the previous section of this manual.

The GPX-32 must be on the same LAN segment, and IP subnet, as the PC you are going to run the Configuration software from.

To start the software, press the Windows Start button and select device installer from:

All Programs->Lantronix->DeviceInstaller 4.2->DeviceInstaller

🛗 Lantronix	🐌 DeviceInstaller	🛅 DeviceInstaller 4.2 🔸
	PeviceInstaller Help	
	📄 Release.txt	

Once the application is running you will see a program window similar to the one shown here:

PLantronix DeviceInstaller 4.2.0.0					- 🗆 🗵	
<u>File E</u> dit <u>V</u> iew <u>D</u> evice <u>T</u> ools <u>H</u> elp						
Search Exclude Assign IP						
🖃 🚍 Lantronix Devices - 1 device(s)	Туре	Name	Group	IP Address	Hardware Address	Status
🖻 📲 Local Area Connection (192.168.50.87)	XPort-03			192.168.50.50	00-20-4A-A4-B0-81	Online
⊡- C XPort						
H- Port-03 - himware V2.10						
Beady //						

Assigning an IP Address

Assigning an IP Address

If the GPX-32 is connected correctly it will be listed as one of the found devices in the right hand pane of the screen. To identify the correct GPX-32, match the MAC address that is printed on the label found at the left side of the unit to one listed.

Note: If the GPX-32 is connected to a Subnet that has a DHCP server it may have already been assigned a dynamic IP address automatically. SuiteLife Systems strongly recommends that a static IP address be assigned to all GPX-32 units.

Select the GPX-32 unit you wish to assign a static IP address and press the *Assign IP* icon button in the toolbar.



Select the Assign a specific IP radio button and press Next.

Enter the IP address, Subnet mask and Default gateway and press *Next*.

Note: If you are unsure of any of these settings or their values please contact your system administrator for assistance. Having multiple devices with the same IP address on the same network will cause severe problems.



Assigning an IP Address

Assign IP Address		×
	Assignment. Click the Assign button to complete the IP address assignment. Assign	
	KBack Rent Carrot H	isto

Press the *Assign* button to complete the address assignment.

Once the address assignment is complete press *Finish* to close the 'Assign IP Address' dialog.

×
Assignment Click the Assign button to complete the IP address assignment.
Progress of bank:

Configuring the GPX-32

Configuring the GPX-32

Note:

Web Configuration errors will occur if the GPX-32 is connected to another software application, i.e. *Axess*, at the same time you are attempting to change settings.

Please close any applications that are using the GPX-32 before proceeding.

There are several settings for the GPX-32 that are user selectable, that affect the voltage ranges and offsets for the Analog input groups and the retention of relay states when power is removed and restored.

Settings are changed via the unit Web Configuration interface, this can be accessed either via a standard Web Browser or using the Configuration software installed at the start of this manual.

If using the configuration software, select the GPX-32 you wish to configure on the tree at the left side of the screen, this will change the right pane to display the *Device Details* tab. Select the *Web Configuration* Tab and press the *Go* button to display the Web Configuration page as shown here.

Doducte Assign IP Upgrade Lantonio Devices - 1 device(z) Cocal Area Connection (192 168 50 87)	ice Details (Web Configuration) Tehes Co	néguration		10000000000
APot 63 - Imease v210	Address Mttp://192.168.5	0.50:80	External Bioscom	LANIRO
	Manaa	ing Technology		/
	statmon			
	Statmon GPX-32 Config	uration v4.01		
	Retentive Outputs (Y or N):	Y	Set Retentive State	
	Analog 01-08 (5 or 15):	5	Set Analog 01-08	
	Analog 09-16 (5 or 15):	5	Set Analog 09-16	
	Analog 17-24 (5 or 15);	5	Set Analog 17-24	
	Analog 25-32 (5 or 15):	5	Set Analog 25-32	
	Analog Channel 1 Offset:	ō	Set Channel 1 Offset	
	Analog Channel 2 Offset:	[a	Set Channel 2 Offset	
	Analog Channel 2 Officet:	P		

To access the Web Configuration from a Web browser, enter the IP address for the GPX-32 into the Address bar of the browser.

Configuring the GPX-32

Configuring the GPX-32

GPX-32 Configuration - Windows Internet E	xplorer		
♦ 😌 🔻 🙋 http://192.168.50.50/GPX-32.cc	i	🔽 🖘 🗙 Google	2
Edit View Favorites Tools Help			
GPX-32 Configuration		l v li v	• () T <u>o</u> ols •
Statmon Managing	Technology!		
Statmon GPX-32 Co Retentive Outputs (Y or N):	nfigurat	ion v4.01	
Analog 01-08 (5 or 15):	5	Set Analog 01-08	
Analog 09-16 (5 or 15):	5	Set Analog 09-16	
Analog 17-24 (5 or 15):	5	Set Analog 17-24	
Analog 25-32 (5 or 15):	5	Set Analog 25-32	
Analog Channel 1 Offset:	0	Set Channel 1 Offset	
Analog Channel 2 Offset:	0	Set Channel 2 Offset	1.00
			•

Settings are changed by entering the new value in the correct box and pressing the corresponding Set button.

Retentive Outputs (Y or N) – Enables the GPX-32 to remember the relay states prior to power being removed from the unit. Once power is restored the relays are reset to their previous states. (Default 'Y')

Analog 01-08 (5 or 15) – Changes the Analog input range to either +/- 5VDC or +/- 15VDC. This setting affects all eight inputs in the bank. There are four banks of eight. (Default '5').

Analog Channel 1 Offset – Applies a +/- offset to the value being read from the ADC output for this channel. There are a total of 32 channels. (Default '0')

Configuring Axess for the GPX-32

Configuring Axess for the GPX-32

Now that the GPX-32 has been assigned a static IP address it is ready to be connected to Axess.

To use the GPX-32 with *Axess* you first must load the STC_MODEDP.DLL plug-in, if you have already loaded this plug-in for another device previously, please skip to step 2.

Step 1 - Loading Device Plug-in

Close Axess and StcBase, if they are running, and start the PlugIns Manager from:

all STC Fleg Monager	<u>×</u>	Select Device on the Tree and press
Roger Contraction Beneficial Rode		Load Plug.
	Differ Fiel (Jand Piec) Com	

Start->All Programs->Axess

Browse to the location where the STC_MODEDP.DLL has been installed, normally this would be:

C:\Program Files\Axess\DevicePlugins\STC_MODEDP

lpen					?
Look jn:	C STC_MODEC)P	•	수 🗈 💣	
	STC_MODEDP.	dll			
My Recent					
Documents					
Desktop					
My Documents					
My Computer					
	File <u>n</u> ame:	STC_MODEDP.dll		-	<u>O</u> pen
My Network	Files of type:	All Files (*.dll)		•	Cancel
Places		Doen as read-only			

Configuring Axess for the GPX-32

Configuring Axess for the GPX-32

Plug Load	×	F
(į)	PlugIn DLL Successfully Loaded into Database	
	OK	

Press OK to continue

Select the 'ModBus TCP/IP Devices' to display its properties.

: 📩 STC Plug Manager		×
🖃 🚽 Plugins	Device Plugin Properties	
📄 🔁 😥 Device	DeviceID	2500
ModBus TCP/IP Devices	ChanTypeUse	23
Sector Se	ConnTypeID	2
	Interface	STC_MODEDP.Run
	Name	ModBus TCP/IP Devices
	Supports	7
	HelpString	Supports ModBus devices via TCP/IP
		Unload Plug Load Plug Close

Press *Close* to exit the application.

Configuring Axess for the GPX-32

Step 2 - Adding a TCPIP Device Connection

Start Axess from: Start->All Programs->Axess.

Once Axess is running, open Setup then select 'TCPIP Devices' from the setup tree.



Press the *Add* button in the toolbar and enter a descriptive name for the new GPX-32 and press *OK*.

TCP Device	×
Enter Device Name	OK Cancel
GPX · 1	

Configuring Axess for the GPX-32

Fill out the *Properties* as displayed below, taking note to change the IP Address to the correct value as assigned previously.

• Note: Before enabling the device, the ModBus Device XML file, '*GPX-32EndDevice.xml*', will need to be copied from the root of the GPX-32 Installation CD to:

C:\Program Files\Axess\DevicePlugins\STC_MODEDP

If this is not done the GPX-32 will not function correctly.

-	Properties	
	IP Address or FQDN	192.168.50.50
	TCP Port	502
	Polling Interval (ms)	500
	Minimum Time Between Valid Data (ms)	5000
	ModBus Device Protocols XML	C:\Program Files\Axess\DevicePlugins\STC_MODEDP\EndDeviceProtocols.xml
	ModBus Device XML	C:\Program Files\Axess\DevicePlugins\STC_MODEDP\GPX-32EndDevice.xml
	Ignore Device Timeouts	False
	Enabled	True

You are now ready to start configuring channels for the GPX-32.

Configuring Axess for the GPX-32

Step 3 – Configuring Axess Channels

The GPX-32 has three channel types, *Status/Opto, Analog* and *Control/Relay*. Each of these channel types are represented in *Axess* by the same names.

Although the basic setup of a GPX-32 channel for each type is the same, the Analog configuration requires the most attention and as such we will concentrate on this in the following steps.

From Setup select Channels in the setup tree.

GPX-32 (Local) - C	onnected	
10 GPX-32	San Xoine & All State India State India (Contentiate Contentiate Contentiate)	
Orannels Status Stat	Status Anaiog Control Event V Information	
H 19 Pager H 20 Voice DtmF	Channels	*
Enables	Description	
Time Sync Time Sync	Channels have information stored about the channel itself. When you set up a channel, you tell the channel what type of channel it is, e.g. Status, Analog, Control, Event, OR Information.	-
- Consisting H Dusers	Status: Provides boolean (or 'on/off') state of an input. The channels are grouped by pages of 16 channels each. Settings such as device type are configured here.	

Configuring Axess for the GPX-32

Select the location to which you wish to assign a GPX-32 channel, and in the Name property give the Channel a descriptive label. Then from the drop down box of the Device Connection property select the connection added in Step 2.

Analog 📕 🙀 Gave 🗶 Delete 着 And Sectors Company	Bit-on Lindan (diaman Grand Serv
H analog 1 - Analog Channel	300000
Analog 2 Name	Analog 1
🕀 🌙 Analog 3 👘 G35 Data	
🕀 🥥 Analog 4 🛛 🖂 Properties	
H 🔾 Analog 5 Extended Name	
Analog 6 Use Multichannel Script	False
🕂 🎱 Analog 7 Meter Display Type	Analog
Analog 8 Delay Alarm (seconds)	0
H Analog 9 Wave File for Alarm	
E Analog 10 Comment	
H 🔾 Analog 11 🛛 🗄 Calibration	
Analog 12 If Scale	
🕀 🍑 Analog 13 🛛 🗄 Nominal Pointer	
Analog 14 T Sample and Hold	
Analog 15 🛛 🗷 Normal Transistion	
Analog 16 - Eevel 1 (Minor) Minimum	
H J Page 2 E Level 1 (Minor) Maximum	
Page 3 E Level 2 (Major) Minimum	
E Level 2 (Major) Maximum	
Page S Connection Properties	
E Page 6 Child Control	GPX+1
Page 7 Seve Address	1
Page 8 Channel Name	
Page 9	
IH J Page 10	Treat Value 0
E Page 11 Device Connection	After Form Ja
HI J Page 12	After Calibration 0
Page 13	Phil Valie 0
B Page 14 Select the Loaded Plugin Device Connection	10
Page 15	Areakig 1
H J Page 16	Beter
Page 17	0 6 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Once you have selected the GPX-32 Device Connection, two new fields are displayed:

Slave Address - This is ignored and should be left at 1. Default is 1.

Channel Name - Press the *ellipses* at the right end of the property field. A new window opens to display a selection of Channels. Once a selection is made, press *Save*.

Solution → Note:

This process is the same for *all* Channel types.

Select Cha	nnel			×
Name	Value			
Analog{1}				
Analog{2}				
Analog{3}				
Analog{4}				
Analog{5}				
Analog{6}				
Analog{7}				
Analog(8)				
Analog(9)				
Analog(10)	r I			
Analog(11)	ľ L			
Analog(12)	ſ			
				_
			0	
			5.	

Configuring Axess for the GPX-32

Values being sent by the GPX-32 for each Analog Input need to be calibrated by applying a formula. The formula applied is dependent on the Input Range selected during the GPX-32 Web Configuration.

Note: By default the GPX-32 is set to a range of +/-5VDC for all Analog banks. To learn how to change this setting, please see the section on how to configure the GPX-32 above.

Calibration	
Make Input Positive	False
Scale Minimum	0
Scale Maximum	10
Decimal Places	2
Display Units	
Display Units Extended	
Formula	(x -32767) * (5 / 32767)
Average	False

Note: Formula operators (i.e., +, -, /, *) must be surrounded by a space character, one before the operator and one following the operator.

Example: (x<sp>-<sp>32767)<sp>*<sp>(5<sp>/<sp>32767)

where <sp> is the space character

Analog Inputs 1 - 32

Analog Input Range	Formula to Apply
+/-5VDC	(x - 32767) * (5 / 32767)
+/-15VDC	(x - 32767) * (15 / 32767)

Analog inputs 33 - 36

Input	Description	Formula to Apply
33	Humidity	((x * (3.6 / 57600)) / 3.6) * 100
34	Temperature in Celsius	Convert Celsius to Fahrenheit (1.8 * x) + 32
35	DC Bus Voltage	x * (15 / 56800)
36	AC Voltage	x * (260 / 56800)

Configuring Axess for the GPX-32

If configuring a Control Channel, the Connection Properties will display one extra field, as shown here.

Ξ	Connection Properties	
	Device Connection	GPX - 1
	Slave Address	1
	Channel Name	Control{1}
	Value to Set	1

Value to Set

The value entered here effects the operation of the relays in the GPX-32. A value of:

- 0 Will turn a Relay Off, if it is On and will have no effect if the Relay is already Off.
- 1 Will turn a Relay On, if it is Off and will turn the Relay Off, if it is On.

Entering a value of '2 or greater will turn the Relay On for the entered value in milliseconds, for example, if you entered 3800 the Relay would be turned on for 3.8 seconds then turned Off. If the Relay was already latched On, the Relay will remain Latched for the value in milliseconds entered, and then turn Off. The longest On time available is 65.5 seconds entered as 65500.

Note: By default the GPX-32 is set to retain relay states, if power is removed and then reapplied, the Relays will reset to their state before power was lost. Please see section on how to configure the GPX-32 above, to learn how to change this setting.

Loading the GPX-32 Template

Loading the GPX-32 Template

Included, on the root of GPX-32 Installation CD, is a preconfigured template file for use with *Axess* named 'GPX-32.stc'.

The template will load a pre configured TCPIP Device connection along with 32 Status, 32 Control and 36 Analog channels with formulas for an analog range setting of +/-5VDC.

Note: The channels in the template were configured starting at channel one. If loading this template into an existing site, care must be taken to apply the correct channel offset so as to not overwrite existing channels.

Before loading the template the correct Device Plug-in is required to be loaded, please see Step 1 in the previous section for details on how this is done.

Place the GPX-32 Installation CD into the computers CD-ROM drive.

From Setup select the top or root of the setup tree, then Press the Load Template button on the Toolbar.



In the '*File name*' field enter: 'd:\GPX-32.stc', (where "d" is the drive letter for your CD-ROM).. Then press *Open*.

When prompted you may change the Channel Offset to load the Channels from the template to a starting location other than Channel 1. Then press *Load Template* from the toolbar.

1	ିଶ୍ୱୀ Save ⊛≸Load Template 🗙 Cancel Load			
-	Status/Analog/Control Channels			
	Channel Offset	0		
-	Event/Information Channels			
	String to Append to Event/Information Channel N			

Loading the GPX-32 Template

Settings	×
1	Are you sure ? This will replace existing settings
	<u>Y</u> es <u>N</u> o

Press Yes to continue with loading the template.

While the template is being loaded this dialog box will be shown, it will be automatically closed when completed:

Setup		×
	Loading Template into the Database. Please Wait	
	<u>Cancel</u>	

Once the load has successfully completed expand TCPIP Devices and select the 'GPX-32' device. Select the *IP Address or FQDN* field and change the IP address to the correct static IP address for the device. Next ensure the device is enabled by setting the *Enabled* property to 'True'.

Setup		
GPX-32 (Local) - Cor	nected	
5 GPN-32	Save XDelete & Add Official Territors Official	tendre (friente divindunt)
Channels Status Status Analog Event Orkron Orkran Orkron Orkro Orkron Orkron Orkron Orkron Orkron Orkro		GPX-32 ModBus TCP/IP Devices 127.0.0.1 502 500 5000 C:\Program Files\Axess\DeviceFlugins\STC_MODEDP\EndDeviceProtocols.uml C:\Program Files\Axess\DeviceFlugins\STC_MODEDP\GPX-32EndDevice.uml
H Orig Devices H Orig Devices H Orig Prices Wrtual Devices H Orig Remote Site Connections	Ignore Device Timeouts Enabled	False True
Pager Voice Dtmf SCL SCL Sches Sync Enail Reports ST Properties	Description Enter the IP address of the ModBus Device you wa	ant to communicate with.

Loading the GPX-32 Template

If correctly loaded and configured the Axess Main screen should look similar to the image shown here:



Technical Specifications

Technical Specifications

Power Supply

- 110-220VAC, 50/60Hz via standard IEC plug. *Power Supply Specifications*
 - o Input Voltage: 100 ~ 240VAC
 - o Input Frequency: 47 ~ 63Hz
 - o Input Current: 0.8A ~ 0.5A
- +/-48VDC input (external battery or solar array) in the event of conventional power failure. Input via 2 position Molex connector.
 - DC to DC Converter Specifications
 - o Input Voltage: 20VDC 60VDC
 - o 1500V isolation
 - o Mating Connector: Molex Part No. 39-01-2020
 - o Crimp Pin: Molex Part No. 39-00-0039 #18-24AWG

Operating Temperature

-30°C to +45°C (-22°F to 133°F)

Humidity

10% to 90% RH (non-condensing)

Mechanical Dimensions

19"W X 1.75"H (1U) X 10.5"D, Standard EIA Rack Mounting

Onboard Temperature Sensor

Operating Range: -30°C to +80°C

Onboard Humidity Sensor

10% to 95% RH

Onboard Voltage Monitoring

- AC Mains Voltage
- DC Bus Voltage

Technical Specifications

Status Indication

- Data Illuminates with the arrival of incoming host data.
- Error CRC Communication Error or any general error condition.
- Power DC Bus Power Good.

Network Interface

- Ethernet 10Base-T or 100Base-TX (Auto-Sensing)
- Connector RJ45
- Indicators (LED)
 - o 10Base-T/100Base-TX connection
 - Link & activity indicator Full/half duplex

Digital I/O

Opto-Isolated Inputs

- o Number of Inputs: 32 Total
- o I/O Connector: 0.050" 68 Pin SCSI Connector
- Input Voltage Range: +5VDC to +30VDC Non-Polarized Anode and Cathode available on isolated pins

Analog Inputs

- o Number of Inputs: 32 Balanced Differential
- o I/O Connector: 0.050" 68 Pin SCSI Connector
- o Input Voltage Range: +/-5VDC and +/-15VDC, selectable in 4 banks of 8
- o Input Modes:
 - 1. Differential Both AIN+ and AIN- inputs driven within voltage range however neither signal falls below a common or ground reference. The difference in the 2 signals is amplified across the full scale input of the ADC.
 - 2. Bipolar AIN+ input driven within voltage range above and below AIN- while it is held at fixed reference. The signal is amplified across the full scale input of the ADC.
 - 3. Unipolar AIN+ input driven within voltage range while AIN- is held at a fixed reference. The signal is amplified across ½ full scale of the ADC.
- o Input Impedance: Minimum 100K
- o ADC: 16 bit, 200Ksps, +/-2LSB INL, accurate to within +/-5% of input voltage

Relay Outputs

- o Number of Outputs: 32 Total
- o I/O Connector: 2 X 0.050" 50 Pin SCSI Connector
- o Contact Rating: 1A @ 30VDC
- o Maximum Switching Power: 30W
- o Maximum Switching Voltage: 60VDC
- o Maximum Switching Current: 1A

Technical Specifications

Connector Pinouts

Connector Pinouts

Opto Inputs 1 – 32

Connector	Input Number	Opto A	Opto B
68 Pin SCSI	1	1	2
68 Pin SCSI	2	35	36
68 Pin SCSI	3	3	4
68 Pin SCSI	4	37	38
68 Pin SCSI	5	5	6
68 Pin SCSI	6	39	40
68 Pin SCSI	7	7	8
68 Pin SCSI	8	41	42
68 Pin SCSI	9	9	10
68 Pin SCSI	10	43	44
68 Pin SCSI	11	11	12
68 Pin SCSI	12	45	46
68 Pin SCSI	13	13	14
68 Pin SCSI	14	47	48
68 Pin SCSI	15	15	16
68 Pin SCSI	16	49	50
68 Pin SCSI	17	17	18
68 Pin SCSI	18	51	52
68 Pin SCSI	19	19	20
68 Pin SCSI	20	53	54
68 Pin SCSI	21	21	22
68 Pin SCSI	22	55	56
68 Pin SCSI	23	23	24
68 Pin SCSI	24	57	58
68 Pin SCSI	25	25	26
68 Pin SCSI	26	59	60
68 Pin SCSI	27	27	28
68 Pin SCSI	28	61	62
68 Pin SCSI	29	29	30
68 Pin SCSI	30	63	64
68 Pin SCSI	31	31	32
68 Pin SCSI	32	65	66
68 Pin SCSI	+15VDC	33	34
68 Pin SCSI	Ground	67	68

Connector Pinouts

Connector	Analog Input Number	Analog IN+	Analog IN-
68 Pin SCSI	1	1	2
68 Pin SCSI	2	35	36
68 Pin SCSI	3	3	4
68 Pin SCSI	4	37	38
68 Pin SCSI	5	5	6
68 Pin SCSI	6	39	40
68 Pin SCSI	7	7	8
68 Pin SCSI	8	41	42
68 Pin SCSI	9	9	10
68 Pin SCSI	10	43	44
68 Pin SCSI	11	11	12
68 Pin SCSI	12	45	46
68 Pin SCSI	13	13	14
68 Pin SCSI	14	47	48
68 Pin SCSI	15	15	16
68 Pin SCSI	16	49	50
68 Pin SCSI	17	17	18
68 Pin SCSI	18	51	52
68 Pin SCSI	19	19	20
68 Pin SCSI	20	53	54
68 Pin SCSI	21	21	22
68 Pin SCSI	22	55	56
68 Pin SCSI	23	23	24
68 Pin SCSI	24	57	58
68 Pin SCSI	25	25	26
68 Pin SCSI	26	59	60
68 Pin SCSI	27	27	28
68 Pin SCSI	28	61	62
68 Pin SCSI	29	29	30
68 Pin SCSI	30	63	64
68 Pin SCSI	31	31	32
68 Pin SCSI	32	65	66
68 Pin SCSI	Ground	33	34
68 Pin SCSI	Ground	67	68

Analog Inputs 1 – 32

Connector Pinouts

Connector	Relay Number	Common	Open	Closed
50 PIN SCSI	1	2	1	3
50 PIN SCSI	2	5	4	6
50 PIN SCSI	3	8	7	9
50 PIN SCSI	4	11	10	12
50 PIN SCSI	5	14	13	15
50 PIN SCSI	6	17	16	18
50 PIN SCSI	7	20	19	21
50 PIN SCSI	8	23	22	24
50 PIN SCSI	9	27	26	28
50 PIN SCSI	10	30	29	31
50 PIN SCSI	11	33	32	34
50 PIN SCSI	12	36	35	37
50 PIN SCSI	13	39	38	40
50 PIN SCSI	14	42	41	43
50 PIN SCSI	15	45	44	46
50 PIN SCSI	16	48	47	49

Relay Outputs 1 – 16

Unused Pins: 25 and 50

Relay Outputs 17 – 32

Connector	Relay Number	Common	Open	Closed
50 PIN SCSI	17	2	1	3
50 PIN SCSI	18	5	4	6
50 PIN SCSI	19	8	7	9
50 PIN SCSI	20	11	10	12
50 PIN SCSI	21	14	13	15
50 PIN SCSI	22	17	16	18
50 PIN SCSI	23	20	19	21
50 PIN SCSI	24	23	22	24
50 PIN SCSI	25	27	26	28
50 PIN SCSI	26	30	29	31
50 PIN SCSI	27	33	32	34
50 PIN SCSI	28	36	35	37
50 PIN SCSI	29	39	38	40
50 PIN SCSI	30	42	41	43
50 PIN SCSI	31	45	44	46
50 PIN SCSI	32	48	47	49

Unused Pins: 25 and 50

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