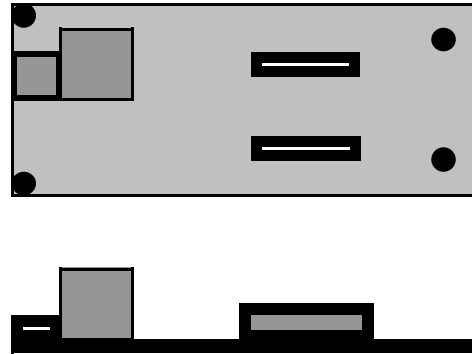


# Telecom EE-PSC Control Module

*Data Interface with I2C Communications Bus  
Remote Control Your Power Supply*

**New  
Technology**

**SAVE TIME & MONEY  
FAST INSTALLATIONS  
STOP FIELD SERVICE  
EASY RETROFITS  
PROVEN RELIABILITY  
& MUCH MORE !**



**Size L 4.5 x W 2.1 x H 1.75 inches**

## Options Include:

- Power Supply Inhibit: TTL signal
- Power Supply Aux: TTL signal
- AC Power Good : TTL signal
- DC Power Good : TTL signal
- Fault Signal: TTL signal
- Margin Signal 1: TTL signal
- Margin Signal 2: TTL signal
- Selectable pull-up resistors TTL (5Vdc 10K)
- Fan Tack 1: RPM +/- 10%
- Fan Tack 2: RPM +/- 10%
- Selectable Dividers Resistors (Analog Input)
- Current Share: Voltage input / read back
- Primary Voltage Output : Voltage input / read back
- Aux Voltage Output : Voltage input / read back
- Alarm Set Point Upper: Primary Voltage
- Alarm Set Point Lower: Primary Voltage
- Alarm Set Point Upper: AUX Voltage
- Alarm Set Point Lower: AUX Voltage
- Air Temperature Monitor -25C to 100C +/- 2C
- Eeprom (256 x 8) serial number , R/W 1 Million
- I2C Input / Output (standard 5Vdc)
- Seven Address location / module
- Selectable addressing of module
- 7 Module Control / I2C Bus Connection
- External DC Power 5Vdc Isolated
- Internal Power 90-264 Vac Isolated / Optional
- Unit comes with connectors for hook-up
- High Noise Immunity
- Standard Telecom Configuration
- Sink Current TTL (5 ma)
- Source Current TTL (0.5 ma)
- Over Temperature Alarm (O.S.)
- I2C bus speed 100K Maximum
- Voltage Monitor +/- 5 %
- Operation Range -25C to +60C
- Humidity 80% @ 25C

## Operation:

The EE-PSC controls most high end power supplies by just hooking up control signals from the power supply to the unit. This allows your power supply to be controlled remotely by a digital data I2C bus controller, from a remote location. Testing, temperature, voltages, signals and alarm set-points. No need to do a field visit to see if the power supply is working. The EE-PSC can be configured for different addresses from just one I2C data bus. You can program a serial number into the each unit. There is no guess work. The EE-PSC follows all standard I2C commands and protocol. You can use either an external 5 volts supplied from another power supply to power the module or you can get an optional 90-264 volt AC supply with the EE-PSC. Power supply monitor voltage range is 3.3- 48 +/- volts primary output . AUX monitor voltage + 5 Vdc. Plus a one year warranty.

**Suggested price: \$150.00**

## EXECUTIVE ENGINEERING

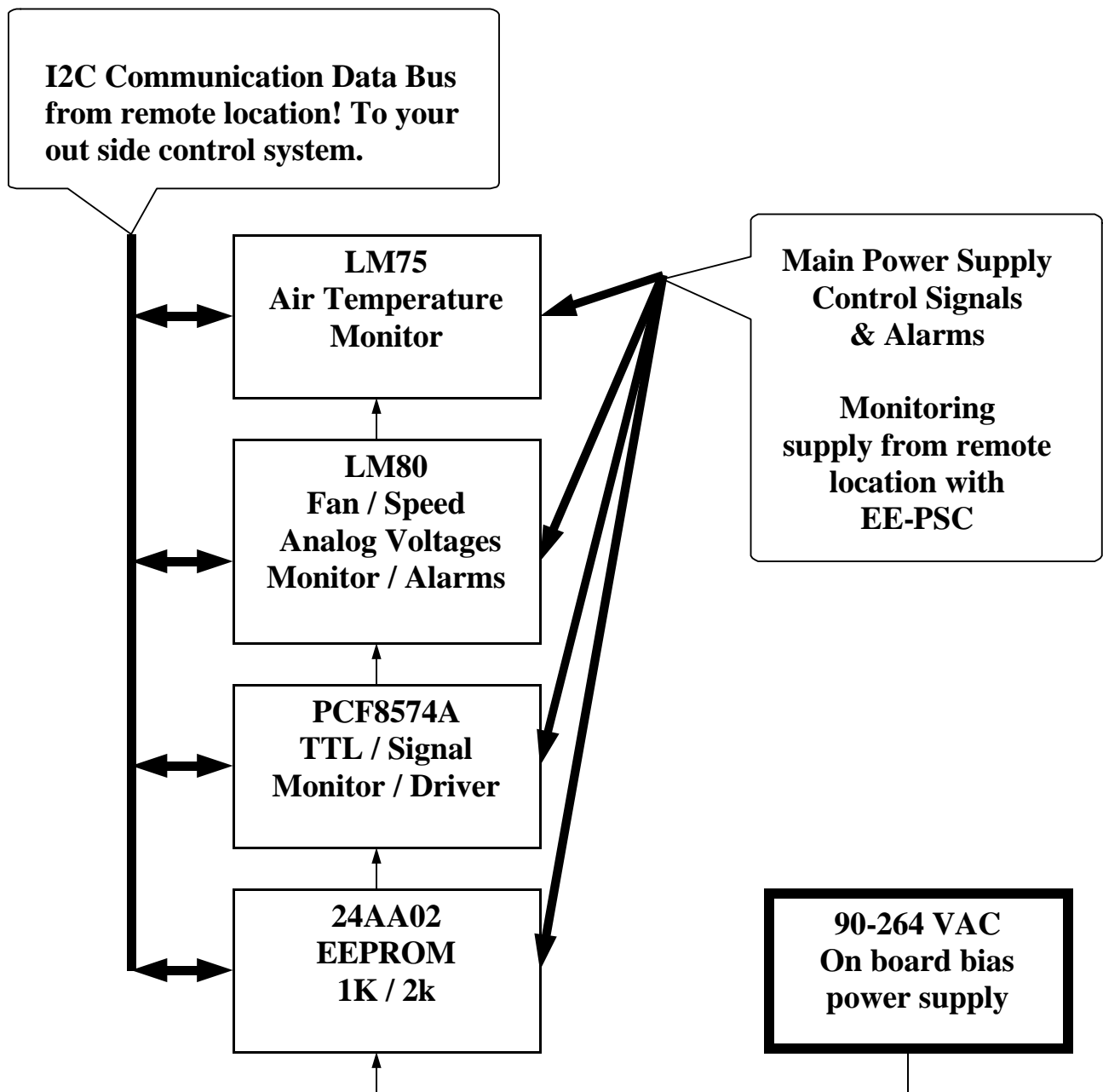
3143 NW 41st STREET  
LAUDERDALE LAKES, FLORIDA 33309-4934 U.S.A.  
PHONE / FAX / V-MAIL 954-485-0177  
E-MAIL, SALES@EXEC-ENG.COM  
INTERNET ADDRESS, HTTP://WWW.EXEC-ENG.COM/

Last Update: 10-30-2001 pre production

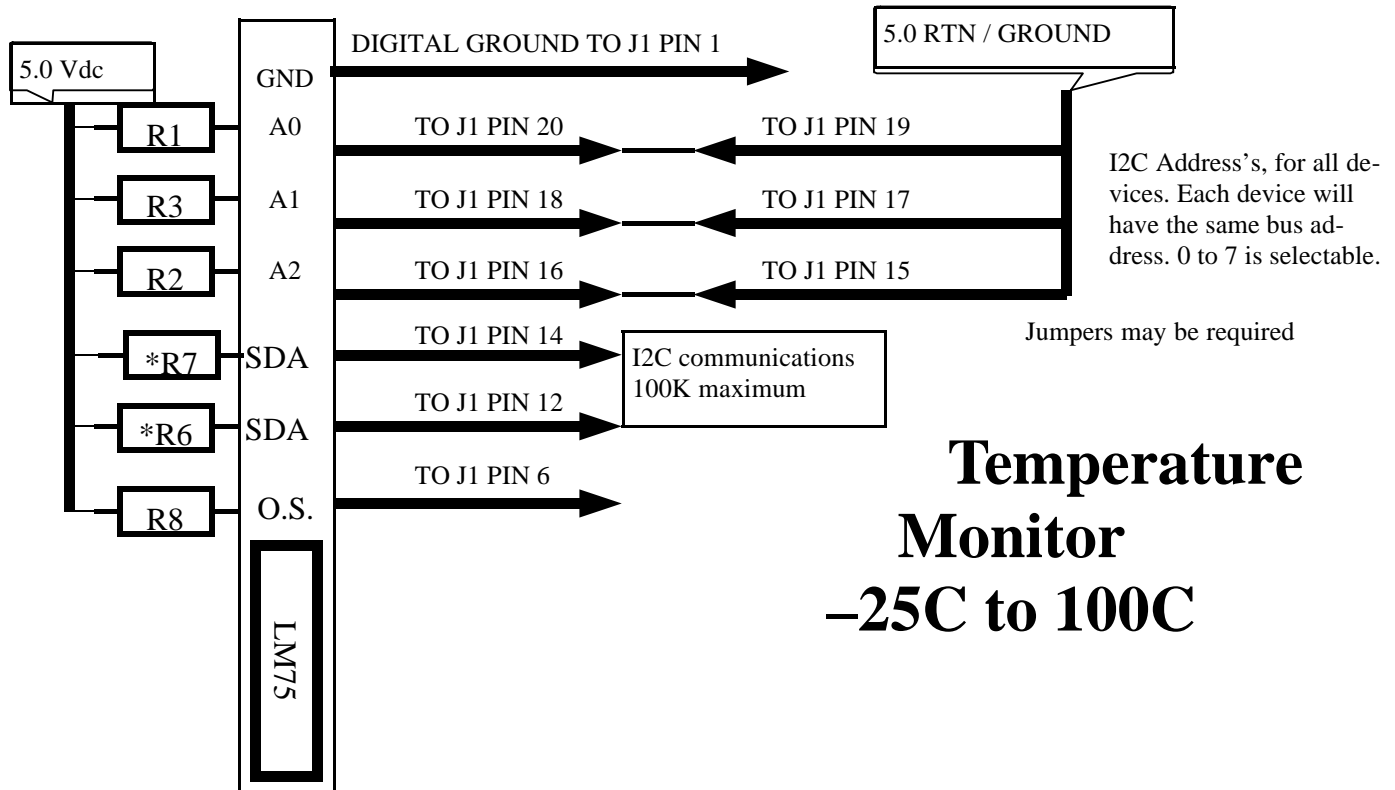
Now that you have found the power supply you want to use, you will find that it has no digital communications. That is where the EE-PSC can help in your design. This unit will supply 99% of all the communications you will need to any standard power supply with command signals (TTL). We have also added a temperature monitor for the power supply, voltage monitoring of the aux voltage and main voltage out. There are TTL monitors for the DC power good signals and AC power good signals as well as Alarm output signals. You can even test set-point alarms out of the power supply. If you need to reset your power supply you can do that also. We have even supplied an EEPROM for you to put a serial number into, so you know what power supply is in what location. You are in complete control of how your power supply reacts. The EE-PSC comes with two 20 pin connectors for signals inputs and outputs. Plus a two pin AC connector for 90-264 VAC power.

Software control of the EE-PSC follows all standard I2C instruction of each IC manufacture. Please read the following pages on correct connection of all signals and pull-up resistors.

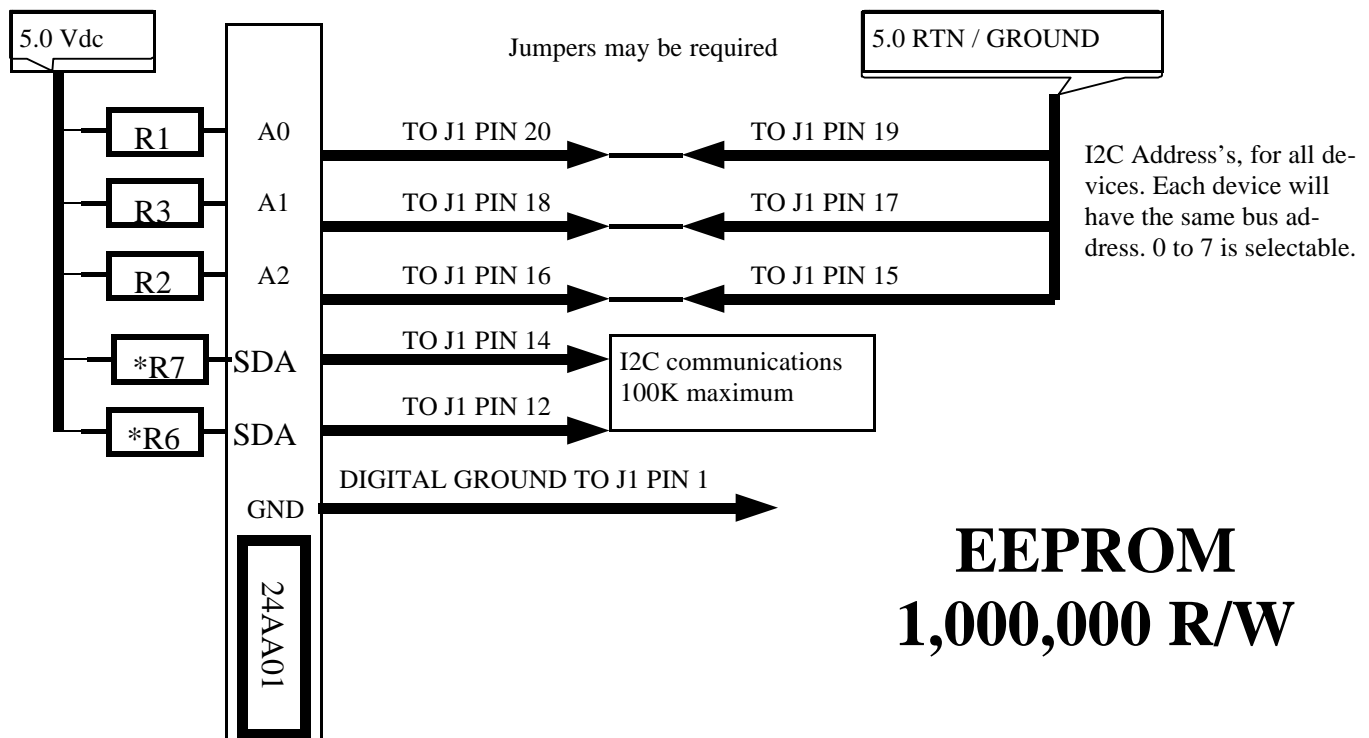
I2C communications information should be gotten from our web site for each device type. **All digital communication is done through the I2C bus.**



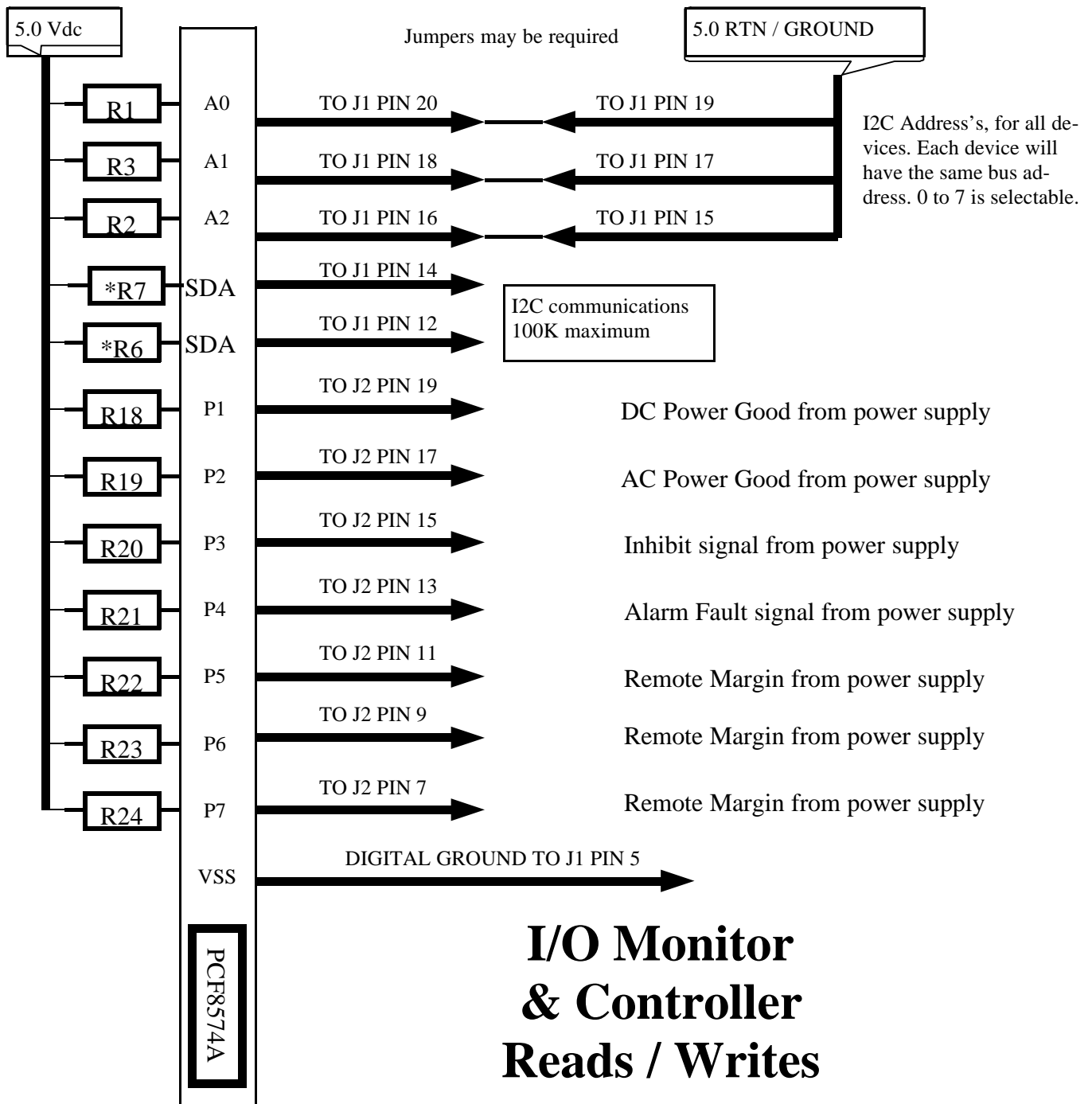
The LM75 is an I2C communication IC that monitors the temperature of the air around it. You have the ability to set temperature alarm set points or just monitor the air temperature. All resistors shown are pull-up. Any resistor shown with a "\*" is not installed in the standard configuration. Consult factory for modifications. Please see the IC's manufactures specifications for correct protocol in communication.



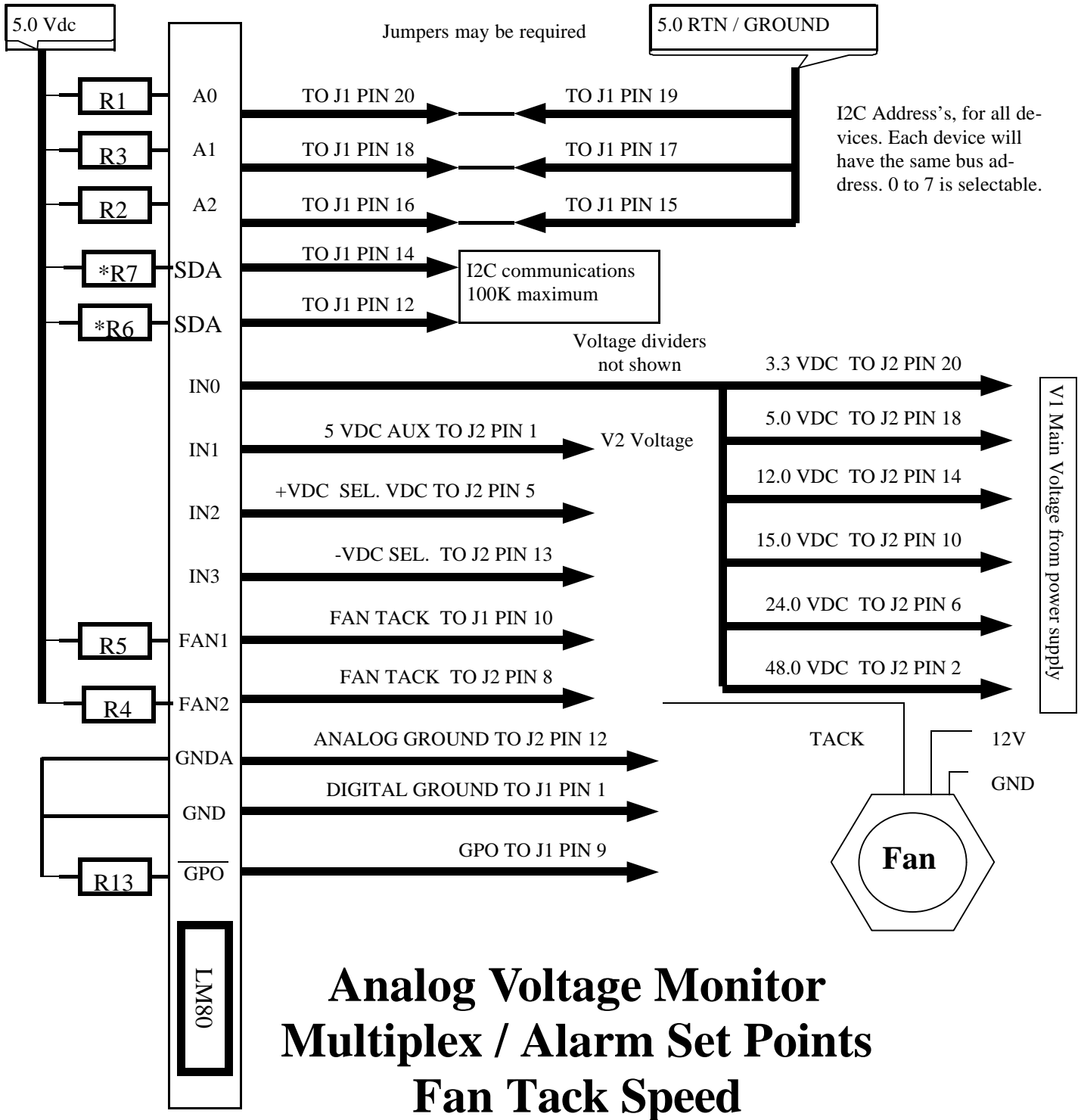
The 24AA01 is an I2C communication IC that holds a data serial number (EEPROM). You have the ability to put in a serial number for each power supply used or erase it and reprogram it. All resistors shown are pull-up. Any resistor shown with a "\*" is not installed in the standard configuration. Consult factory for modifications. Please see the IC's manufactures specifications for correct protocol in communication.



The PCF8574A is an I2C communication IC that monitors the digital signals. You have the ability to set or read a digital bit high or low. All resistors shown are pull-up. Any resistor shown with a "\*" is not installed in the standard configuration. Consult factory for modifications. All signals to and from this circuit are for stand TTL operation. Please see the IC's manufactures specifications for correct protocol in communication.

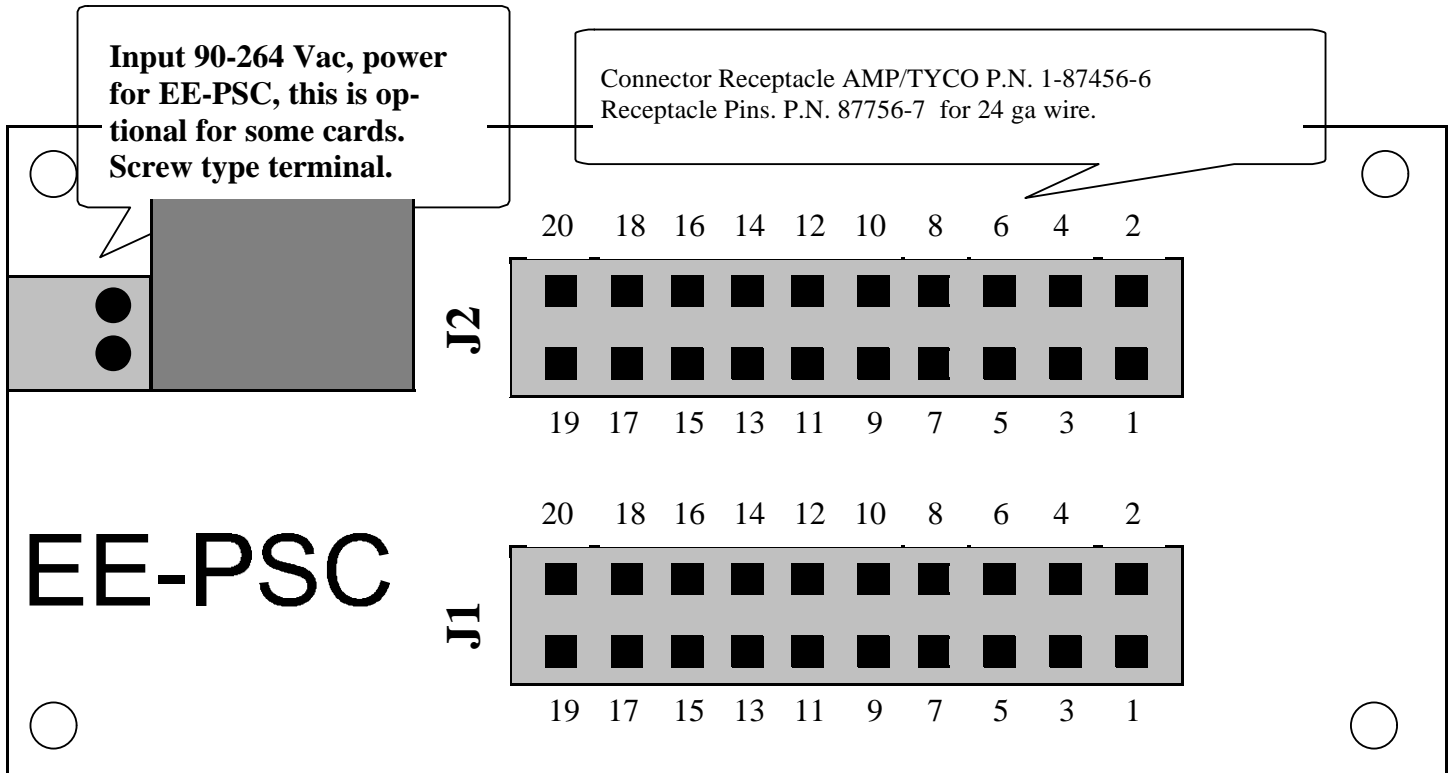


The LM80 is an I2C communication IC that monitors the analog signals. You have the ability to set high and low alarm points as well as measure fan tack frequency. All resistors shown are pull-up. Any resistor shown with a "\*" is not installed in the standard configuration. Consult factory for modifications. Please see the IC's manufactures specifications for correct protocol in communication. The EE-PSC has been designed for most standard voltages that a power supply may generate. Each pin show the function or voltage that can be applied to it. You should never exceed that voltage. If you wish to use IN2 or IN3 call factory for configuration.

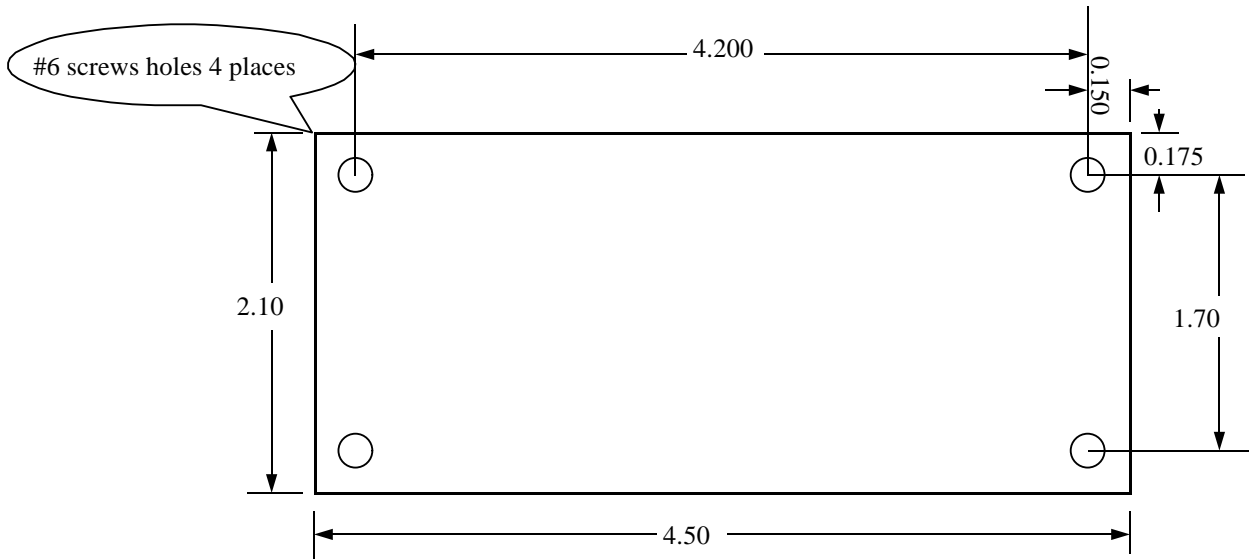
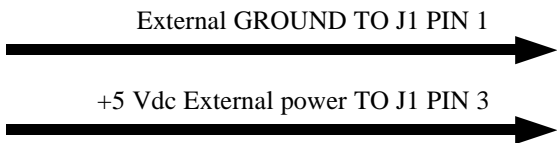


# Analog Voltage Monitor Multiplex / Alarm Set Points Fan Tack Speed

The CONNECTORS to I2C communication is as follows. You have the ability to set all the features of the EE-PSC. See the figures below for correct pin-out of connectors.



**EE-PSC viewed from top side of PC Board**



TB1		
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90-264VAC

T1

C1  
C3  
R35  
CR1

R1  
R3  
R2  
R6  
R7  
R24  
R23  
R22  
R21  
R20  
R19  
R18  
R31  
R30  
R29  
R28  
R27  
R26  
R25

R15  
R32  
R17

LED1

J2



C9  
C8  
C7  
R33

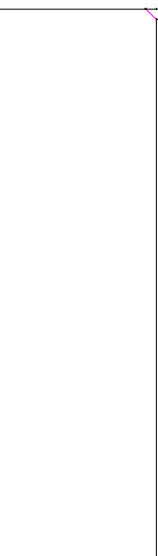
TZ1

C5  
U1  
C2  
U4

F1

REV. A

J1



U3

R11  
R10  
R8  
R4  
R12

# EE-PSC

POWER  
SUPPLY  
I2C TELECOM

C4  
U2  
U2

R13  
R9  
R34  
R5  
R14  
R16  
C6  
EXECUTIVE  
ENGINEERING

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