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INSTALLATION GUIDE FOR THE
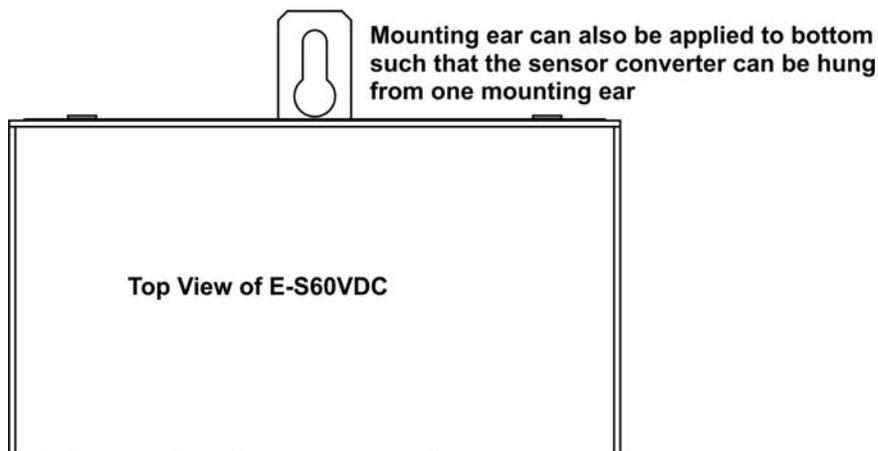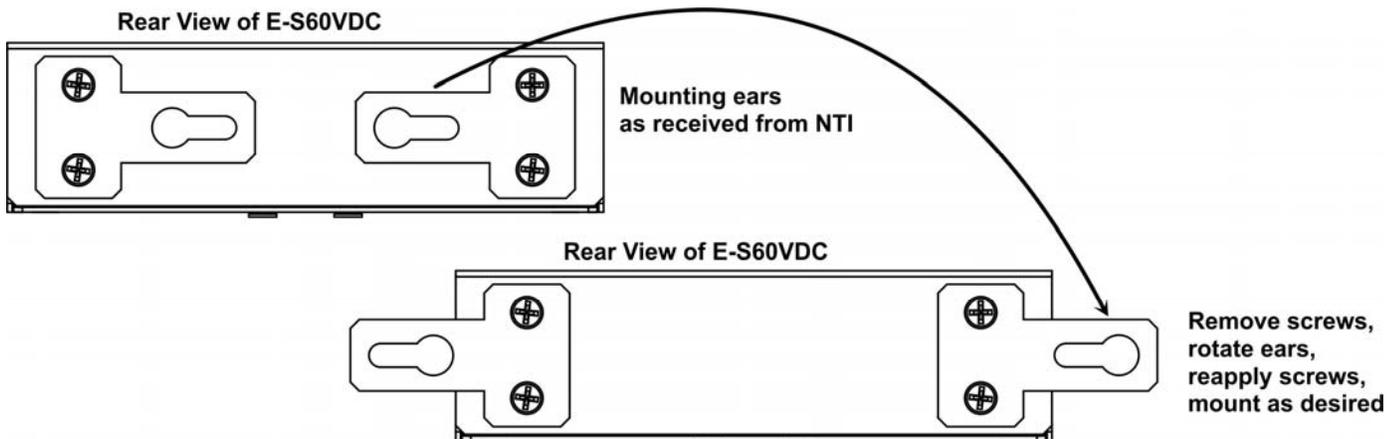
E-S60VDC

INTRODUCTION

The NTI E-S60VDC Voltage Detector Converter monitors DC voltage sources (up to two) when connected to an E-16D/-5D/-2D Enterprise Environment Monitoring System (SYSTEM). The voltage sources can be anything with a range between 0 to -60VDC or 0 to +60VDC. When connected to a SYSTEM via CAT5/5e/6 cable (up to 1,000 feet away), the voltage source(s) can be monitored and the SYSTEM can be configured to alert users as to variations in the voltage levels.

Features:

➢ Detects and monitors up to two DC voltages, each with a range
  of either 0 to -60VDC or 0 to +60VDC
➢ 5-position screw-terminal connection
➢ Supports CAT5/5e/6 cable up to 1,000 ft. (not included)
➢ Includes Mounting Ears
➢ RoHS certified

INSTALLATION

Mount the E-S60VDC using the mounting ears provided. To use the ears, remove the screws securing the ears to the rear of the E-S60VDC, turn the ears around, and reapply the screws. Alternatively, secure one ear to holes on the bottom of the unit so that it can be hung as shown in the image below.

Rear View of E-S60VDC

Mounting ears as received from NTI

Rear View of E-S60VDC

Remove screws, rotate ears, reapply screws, mount as desired

Mounting ear can also be applied to bottom such that the sensor converter can be hung from one mounting ear
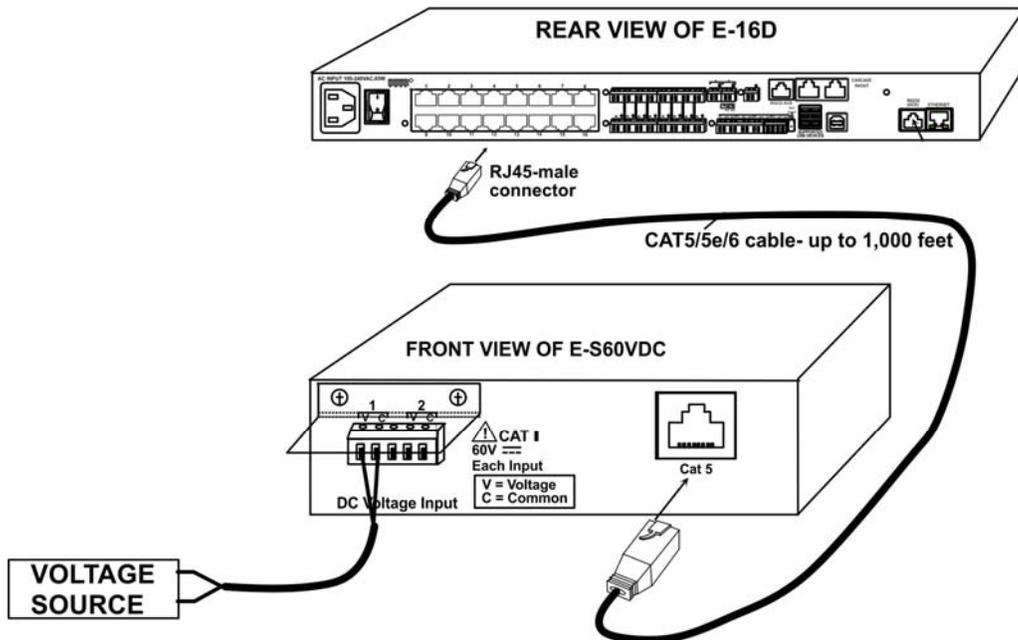
Top View of E-S60VDC

To mount multiple Sensor Converters in close proximity to the SYSTEM, install an extension rail kit (NTI E-RL-16D - sold separately) and mount Sensor Converters as seen in the illustration below.
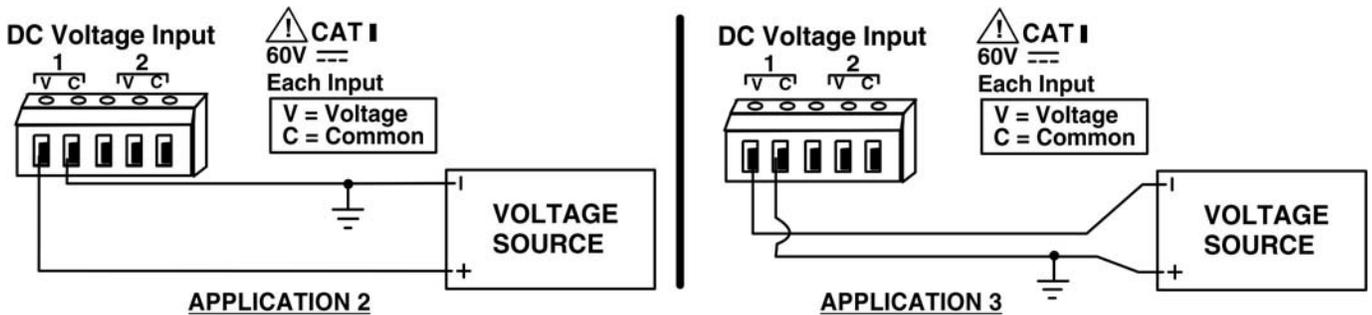

Mount Sensor Converter(s)

Mount E-RL-16D and E-16D (as per the instructions that come with the rail kit)
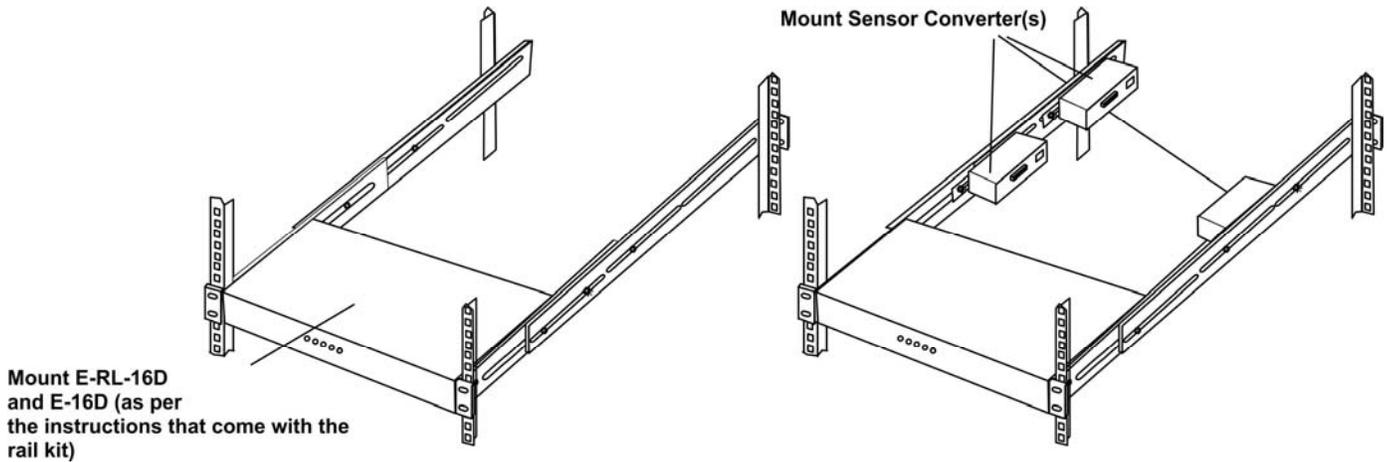
CONNECTION

1. Connect a voltage source to the " V " and "C " connections of either pair 1 or pair 2 on the removable terminal block.   Wiring for three applications are illustrated below for your reference.
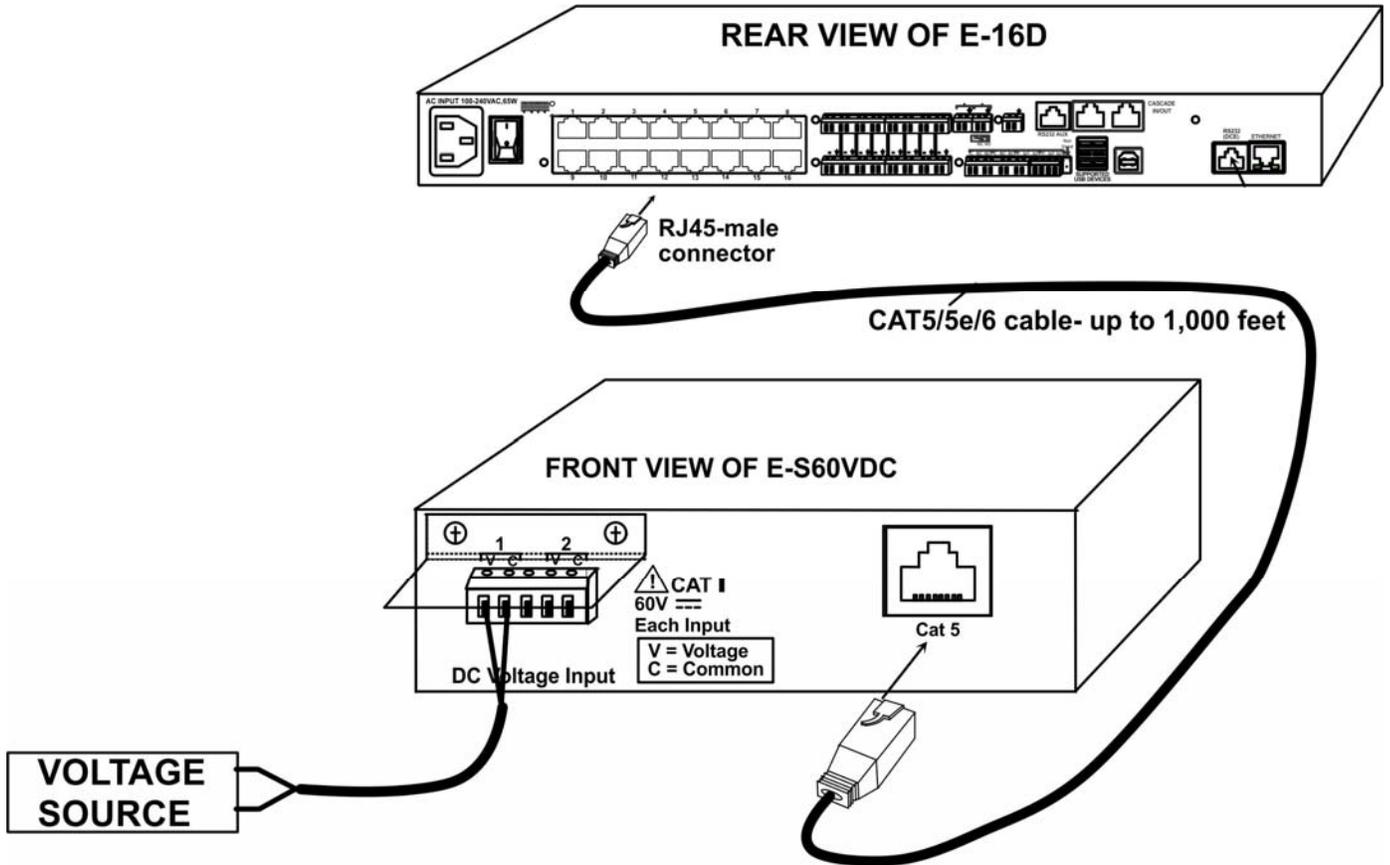
Note: The wire connection terminal block is easily removed from the Voltage Detector Converter for convenient wire termination.

REAR VIEW OF E-16D

RJ45-male connector

CAT5/5e/6 cable- up to 1,000 feet

FRONT VIEW OF E-S60VDC

⚠ CAT I
60V ===
Each Input
V = Voltage
C = Common

Cat 5

DC Voltage Input

VOLTAGE SOURCE

WARNING: It is extremely important that the "earth ground" wire of a non-floating voltage source is connected to the "C" terminal on the Voltage Converter.   The "C" terminal of the Voltage Converter is internally connected to earth ground.   Failure to connect the voltage source correctly may result in damage to the voltage source. (See applications 1-3 for proper wiring of the voltage source.)

DC Voltage Input

⚠ CAT I
60V ===
Each Input
V = Voltage
C = Common

VOLTAGE SOURCE

APPLICATION 2

DC Voltage Input

⚠ CAT I
60V ===
Each Input
V = Voltage
C = Common

VOLTAGE SOURCE

APPLICATION 3

3. Connect a CAT5/5e/6 patch cable (up to 1,000 feet long) between the "Cat 5" port on the Voltage Detector Converter and an "RJ45 Sensor" port on the SYSTEM.

REAR VIEW OF E-16D

RJ45-male connector

CAT5/5e/6 cable- up to 1,000 feet

FRONT VIEW OF E-S60VDC

CAT I
60V ===
Each Input

V = Voltage
C = Common

DC Voltage Input

Cat 5

VOLTAGE SOURCE

4. Configure the SYSTEM to react to changes in the voltage from the source, as desired.

CONFIGURATION

When an E-S60VDC Voltage Sensor is connected to the SYSTEM, the summary page will update with two sensor names of the Type "Voltage".   In order to better define the sensor on the Summary Page, in SNMP traps, or in an MIB browser, click on the "Edit" link to open the sensor configuration page and configure the sensor.   In the image below, an E-S60VDC has been connected to an E-16D at RJ45 Sensor port 7 and configured to be used.

Sensors

Conn.	Description	Type	Value	Status	Action		
1	Temperature 1	Temperature Combo	83.2°F	Normal	View	Edit	Delete
1	Humidity 1	Humidity Combo	40%	Normal	View	Edit	Delete
1	Dew Point Sensor 1	Dew Point	56.5°F	Normal	View	Edit	Delete
2	Light Sensor 2	Light	78.7lx	Normal	View	Edit	Delete
3	Temperature 3	Temperature	81.4°F	Normal	View	Edit	Delete
4	Humidity 4	Humidity	39%	Normal	View	Edit	Delete
5	Temperature 5	Temperature Combo	27.8°C	Normal	View	Edit	Delete
5	Humidity 5	Humidity Combo	40%	Normal	View	Edit	Delete
6	ACLMV 6 Main	ACLM-V AC Voltage	116.7V	Normal	View	Edit	Delete
6	ACLMV 6 UPS	ACLM-V AC Voltage	118.5V	Normal	View	Edit	Delete
7	S60VDC 7-1	Voltage	12.2V	Normal	View	Edit	Delete
7	S60VDC 7-2	Voltage	0.1V	Normal	View	Edit	Delete
9	ACLM-P Power 9	ACLM-P Power	Out of range	Acknowledged	View	Edit	Delete
9	ACLM-P Voltage 9	ACLM-P AC Voltage	117.9V	Normal	View	Edit	Delete
10	RTD Sensor 10	Temperature	78.1F	Normal	View	Edit	Delete
10	Sensor 10-2	Current	0.0mA	Normal	View	Edit	Delete
15	Key Pad 15	Keypad	Open	Normal	View	Edit	Delete
16	Motion Detector 16	Motion Detector	Closed	Normal	View	Edit	Delete

Two voltage sources are being monitored

Select "Edit" to configure

S60VDC 7-1 Configuration (Type: Voltage)

Sensor Settings

Description	S60VDC 7-1	
	Descriptive name for the sensor	
Min. Level	-60.0	
	Min. supported value for the sensor	
Max. Level	60.0	
	Max. supported value for the sensor	
Min. Non-Critical Threshold	9.0	
	Min. threshold below which indicates an non-critical alert condition	
Max. Non-Critical Threshold	13.5	
	Max. threshold above which indicates an non-critical alert condition	
Min. Critical Threshold	8.0	
	Min. threshold below which indicates an alert condition	
Max. Critical Threshold	16.0	
	Max. threshold above which indicates an alert condition	
Refresh Rate	1	Sec
	The refresh rate at which the sensor view is updated	

Configure thresholds within the range of -60 to +60 VDC

⊞ **Group Settings**

⊞ **Schedule Settings**

⊞ **Non-Critical Alert Settings**

⊞ **Critical Alert Settings**

⊞ **Data Logging**

Save

Alert Simulation

Simulate Alert   Clear Alert

Configuration of sensor connected to E-S60VDC

The sensor settings are the same as any other sensor configuration (see your SYSTEM manual for details).

TROUBLESHOOTING

Problem	Solution
Message "OUT OF RANGE" appears in sensor status page	• Measured voltage has exceeded the 0 to -60VDC / 0 to +60VDC limits

TECHNICAL SPECIFICATIONS

Description	Specification
Measurement Range	0 to -60VDC / 0 to +60VDC
Accuracy	+/- 100mV +/-1% reading
Resolution	31mV
Input Impedance	20K ohms
Power	30mA @ 12VDC (Powered by SYSTEM)
Size (In.) W x D x H	4.21x3.2x1.2

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CHANGES

The material in this guide is for information only and is subject to change without notice. Network Technologies Inc reserves the right to make changes in the product design without reservation and without notification to its users.

WARRANTY INFORMATION

The warranty period on this product (parts and labor) is two (2) years from date of purchase. Please contact Network Technologies Inc at (800) 742-8324 or 330-562-7070 for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.