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E-VSSB(D)
Vibration Sensor
INSTALLATION
MANUAL

INTRODUCTION

The E-VSSB(D) is used to sense vibrations from a wide variety of sources, sensed through surface to which it is mounted. The E-VSSB can be connected to any RJ45 Sensor Port on an E-2D/5D/16D. Alternatively, the E-VSSB**D** has digital wire connections for connection to any Digital Input port on the E-xD, E-MINI-LXO, E-MICRO-T(RHP), E-1W or E-DI16DO16 and a power jack for connection of the supplied AC adapter. With a proper connection, and configuration through the ENVIROMUX system web interface, the sensor will communicate when vibration occurs and the ENVIROMUX system can provide alerts to one or more users through various means. See your ENVIROMUX system manual for details on the available alert methods.

Features:
- Non-Directional Vibration Sensor.
- Voltage Supply
  - VSSB: 5V DC through E-xD
  - VSSBD: 5V DC AC Adapter (I**ncluded**)
- Current consumption: Max 15mA
- Connector Type: RJ45 (E-VSSB) or 2-Terminal Block (**Included**) (E-VSSBD)
- VSSB supports CAT5/5e/6/7 cables up to 1000ft (305m); VSSBD supports 2-wire 16-26AWG cable up to 1000ft (305m)
- Regulatory approvals: CE, RoHS.

MOUNTING

Using the mounting bracket supplied, mount the E-VSSB(D) to any surface where vibrations need to be sensed. The orientation of the case is not important to its operation.

Note: The mounting surface must be able to move with the cause of the vibration. A surface that cannot move will not work.
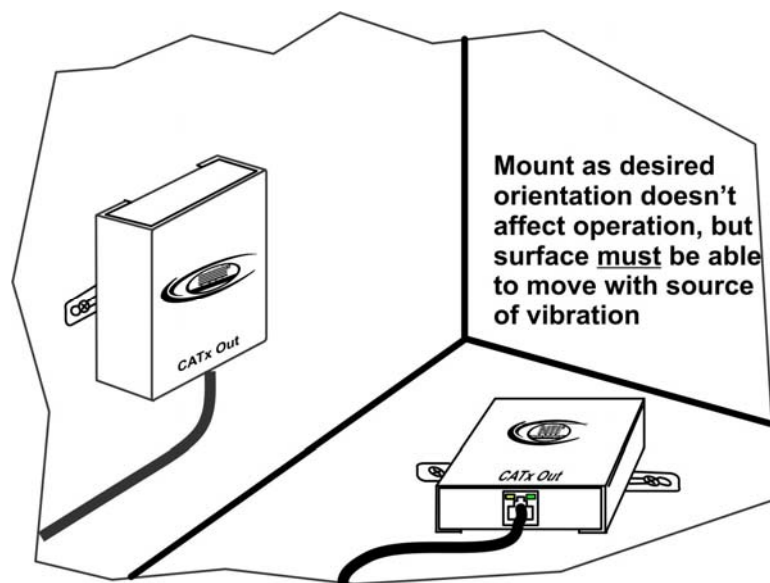
WIRING METHODS

Connect the CATx cable from the E-VSSB to any RJ45 Sensor port on the E-xD.

If using an E-VSSBD, connect a 16-26 AWG pair of wires between the "**+**" and " $\perp$ " on the E-VSSBD
and the same terminals of one of the "DIGITAL IN" connections on the E-xD.   Be careful to connect positive **(+)** to positive, and
ground ($\perp$)   to ground terminals.
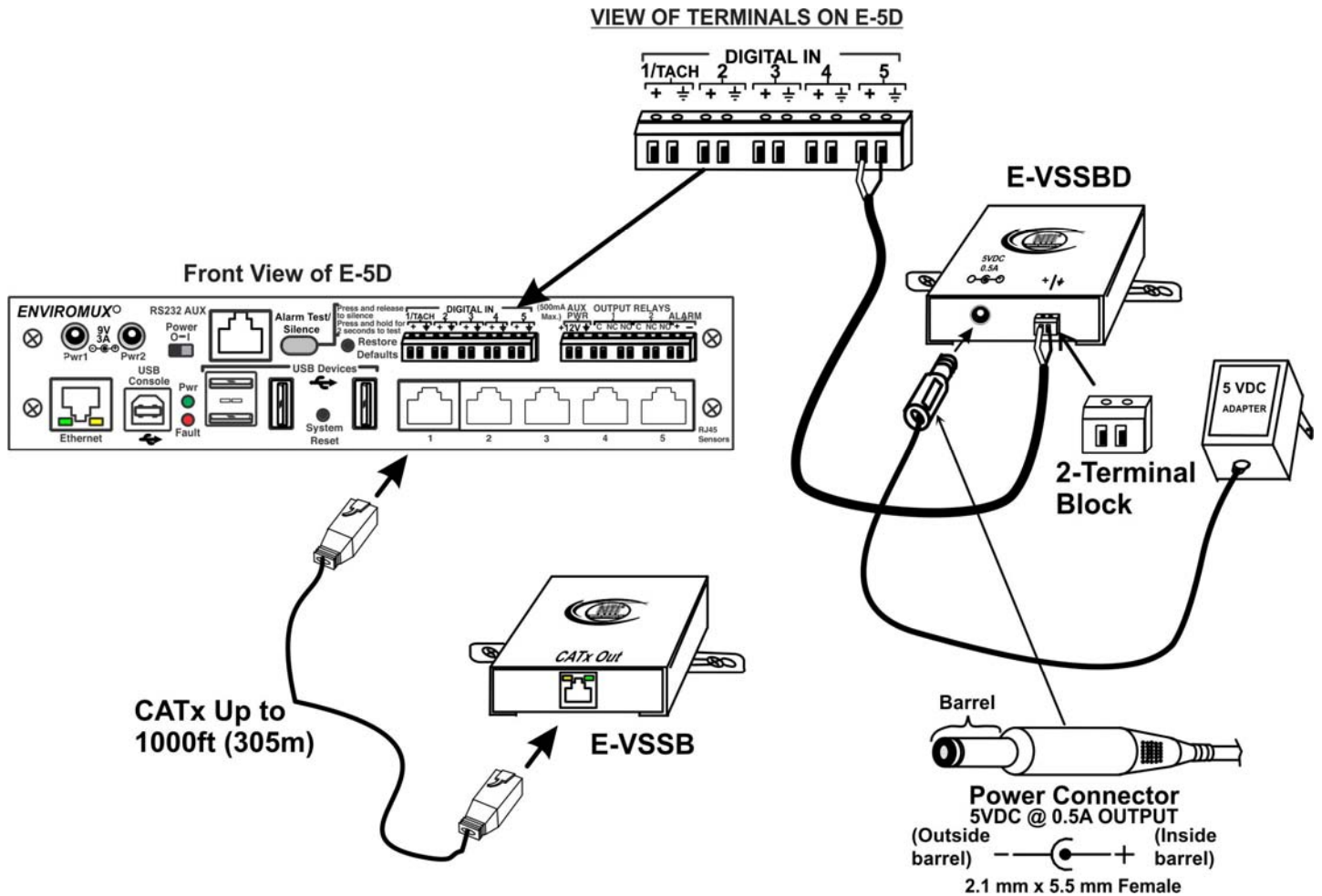
CONFIGURATION

Connect either an E-VSSB to an RJ45 Sensor port or an E-VSSBD to a Digital Input. Then configure from the web interface of the ENVIROMUX System using one of the methods outlined below.

E-VSSB

1. From the Sensors menu, click on "**Add New Sensor**".

Sensors

Internal Sensors

No.	Description	Type	Value	Status	Action
1	Internal Temperature	Temperature	27.8°C	Normal	View Edit
2	Internal Humidity	Humidity	28%	Normal	View Edit

Sensors

Conn.	Description	Type	Value	Status	Action
1	Sensor #1.1	Vibration	Closed	Normal	View Edit Delete

Add New Sensor
Add Tach Sensor on Digital input 1

2. From the drop-down menu on the next screen, select Sensor Type "**Vibration**".

Add New Sensor

Add New Sensor	
Sensor Type	Water ▼
	Water
	Smoke Detector
	Vibration
RJ45 Connector	Motion Detector
	Glass Break jack the sensor will be connected to
	Door
	Keypad
	Panic Button
	Key Station
Add	Dry Contact
	RTD Sensor

3. Select the RJ45 connector port number that the E-VSSB is connected to.

Add New Sensor

Add New Sensor	
Sensor Type	Vibration ▼
	Select the sensor type
RJ45 Connector	2 ▼
	Choose which RJ45 jack the sensor will be connected to
Add	

4. In the next screen, enter the description as you want to see it on the Summary page and make sure the "Normal Status" is set to "**Closed**".

The Tamper feature is not applicable to this sensor.

Sensor #1.1 Configuration (Type: Vibration)

Sensor Settings	
Description	Sensor #1.1
	Descriptive name for the sensor
Normal Status	Closed ▼
	Select the normal status for the sensor
Enable Tamper Alert	☐
	Enable tamper alert notifications for this sensor
Tamper Normal Status	Open ▼
	Select the tamper contact normal status
Refresh Rate	1 Sec ▼
	The refresh rate at which the sensor view is updated

⊞ Group Settings
⊞ Schedule Settings
⊞ Critical Alert Settings
⊞ Data Logging

Save

Alert Simulation
Simulate Alert   Clear Alert

Click here to change the Alert Delay value. (See also image below) →

OPERATION

When the E-VSSB senses vibration, it will send a "switch open" signal to the ENVIROMUX System it is connected to. This signal will last 3 to 4 seconds.

The default Refresh Rate (above) is 10 seconds for RJ45 sensors.   If you want the ENVIROMUX System to send an alert as quickly as possible after vibration is sensed, change the "Refresh Rate" value to 3 seconds or less.

The default Alert Delay (below) is 30 seconds.   If you want the ENVIROMUX System to send an alert immediately after vibration is sensed, change the Alert Delay value to 1 second.

Tip: If you want the ENVIROMUX System to ignore the signal from the Vibration sensor until it has been vibrating for a specific period of time, set the "Alert Delay" for 4 seconds (under Critical Alert Settings) **plus** the amount of time it should be ignored.

For details regarding the rest of the configuration of this sensor, refer to the ENVIROMUX System manual for all the applicable options.

Critical Alert Settings	
Disable Alerts	☐
	Disable alert notifications for this sensor
Alert Delay	1 Sec ▼
	Duration the sensor must be out of thresholds before alert is generated
Notify Again	

E-VSSBD

1. From the Digital Inputs menu, click on "**Add New Digital Input**" .

2. Select the Digital Input connector the E-VSSBD is connected to.

3. In the next screen**,** enter the description as you want to see it on the Summary page and make sure the "Normal Status" is set to "**Closed**".

OPERATION

When the E-VSSB senses vibration, it will send a "switch open" signal to the ENVIROMUX System it is connected to.
This signal will last 3 to 4 seconds.

The default Refresh Rate is 20 seconds for sensors connected to Digital Inputs.   If you want the ENVIROMUX System to send an alert as quickly as possible after vibration is sensed, change the "Refresh Rate" value to 3 seconds or less.

The default Alert Delay is 30 seconds.   If you want the ENVIROMUX System to send an alert immediately after vibration is sensed, change the Alert Delay value to 1 second.

Tip: If you want the ENVIROMUX System to ignore the signal from the Vibration sensor until it has been vibrating for a specific period of time, set the "Alert Delay" for 4 seconds (under Critical Alert Settings) **plus** the amount of time it should be ignored.

For details regarding the rest of the configuration of this sensor, refer to the ENVIROMUX System manual for all the applicable options.

When the sensor is in a "Normal" state, the Status screen will indicate the switch is "Closed".

Vibration Status

Type: Digital Input	Connector:2
Closed	
Status: Normal	

Handle Alert: Dismiss ▼ Apply Changes
Last alert was at: Never
                                                          Clear Records

Cycle Sensor Power

Configure

When the sensor is in an "Alarm" state, the Status screen will indicate the switch is "Open".

Vibration Status

Type: Digital Input	Connector:2
Open	
Status: Alarm	

Handle Alert: Dismiss ▼ Apply Changes
Last alert was at: 08-31-2009 08:00:10 PM
                                                          Clear Records

Cycle Sensor Power

Configure

The Summary page will provide the status of all sensors at a glance.

Summary (alerts detected)

Internal Sensors

No.	Description	Type	Value	Status	Action
1	Internal Temperature	Temperature	27.7°C	Normal	View Edit
2	Internal Humidity	Humidity	28%	Normal	View Edit

Sensors   E-VSSB

Conn.	Description	Type	Value	Status	Action
1	Sensor #1.1	Vibration	Closed	Normal	View Edit Delete

Digital Inputs   E-VSSBD

Conn.	Description	Type	Value	Status	Action
2	Vibration	Digital Input	Open	Alarm	View Edit Delete

SPECIFICATIONS

	E-VSSB	E-VSSBD
Voltage	5VDC	5VDC
Voltage Source	E-xD through CATx cable	AC Adapter (Included)
Operating current	15mA	15mA
Trigger duration	3.1 to 4.1 seconds	3.1 to 4.1 seconds
Case Material	Powder coated aluminum	Powder coated aluminum
Interface Connector Type	RJ45	Terminal Block
Communication method	RS485	Digital I/O
Cable Type	CAT5/5e/6/7	16-26AWG 2-Conductor
Cable Length	Max. 1000ft (305m)	Max. 1000ft (305m)
Operating Temperature	32 to 104°F (0 to 60°C)	32 to 104°F (0 to 60°C)
Storage Temperature	-22 to 140°F (-30 to 60°C)	-22 to 140°F (-30 to 60°C)
Relative Humidity	17 to 90% non-condensing RH.	17 to 90% non-condensing RH.
Dimensions w/o Bracket WxDxH	2x2.5x1.28"	2x2.5x1.28"
Dimensions w/ Bracket WxDxH	3.75x2.5x1.34"	3.75x2.5x1.34"
Regulatory approvals	CE, RoHS.	CE, RoHS.