

ENVIROMUX-VSSB(D) Vibration Sensor INSTALLATION MANUAL



INTRODUCTION

The ENVIROMUX-VSSB(D) is used to sense vibrations from a wide variety of sources, sensed through surface to which it is mounted. The ENVIROMUX-VSSB can be connected to any RJ45 Sensor Port on an ENVIROMUX-2D/5D/16D. Alternatively, the ENVIROMUX-VSSBD has digital wire connections for connection to any Digital Input port on the ENVIROMUX-xD, ENVIROMUX-MINI-LXO, ENVIROMUX-MICRO-T(RHP), ENVIROMUX-1W or ENVIROMUX-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.

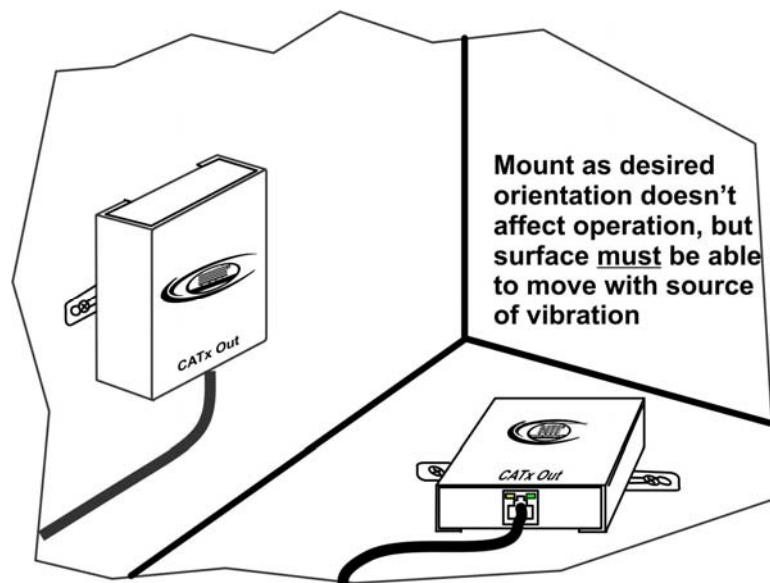
Features:

- Non-Directional Vibration Sensor.
- Voltage Supply
 - VSSB: 5V DC through ENVIROMUX-xD
 - VSSBD: 5V DC AC Adapter (included)
- Current consumption: Max 15mA
- Connector Type: RJ45 (ENVIROMUX-VSSB) or Terminal Block (ENVIROMUX-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 ENVIROMUX-VSSB(D) to any surface where vibrations need to be sensed. The orientation of the case is not important to its operation.

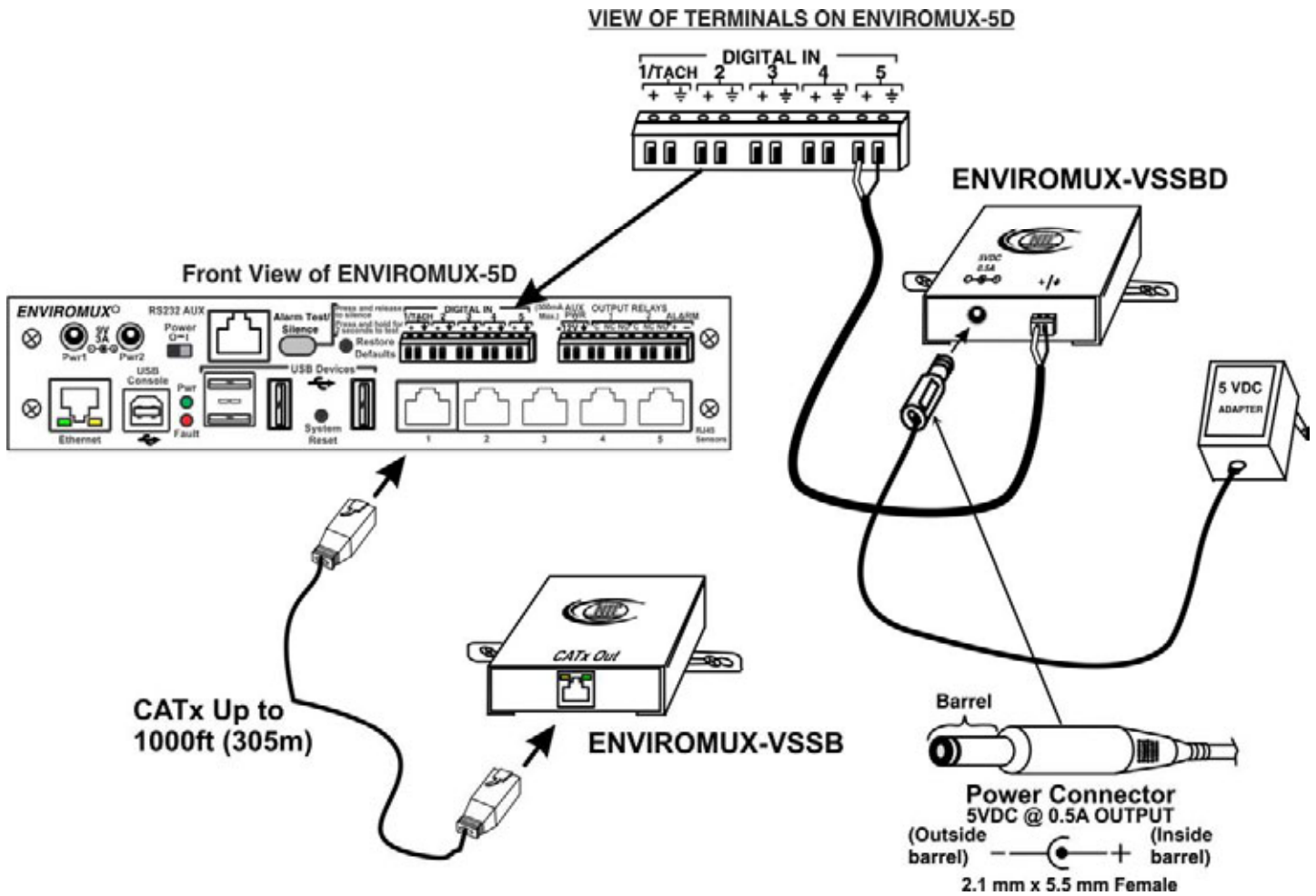
Note: The mounting surface must be able to move with the cause of the vibration. A surface that cannot move will not work.



WIRING METHODS

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

If using an ENVIROMUX-VSSBD, connect a 16-26 AWG pair of wires between the “+” and “ $\frac{-}{\perp}$ ” on the ENVIROMUX-VSSBD and the same terminals of one of the “DIGITAL IN” connections on the ENVIROMUX-xD. Be careful to connect positive (+) to positive, and ground ($\frac{-}{\perp}$) to ground terminals.



CONFIGURATION

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

ENVIROMUX-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 (dropdown menu open)

- Water
- Smoke Detector
- Vibration**
- Motion Detector
- Glass Break
- Door
- Keypad
- Panic Button
- Key Station
- Dry Contact
- RTD Sensor

RJ45 Connector: [Empty]

jack the sensor will be connected to

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

Add New Sensor

Add New Sensor

Sensor Type: Vibration (dropdown menu)

Select the sensor type

RJ45 Connector: 2 (dropdown menu)

Choose which RJ45 jack the sensor will be connected to

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 ENVIROMUX-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

ENVIROMUX-VSSBD

1. From the Digital Inputs menu, click on “Add New Digital Input” .

Digital Input Sensors

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

[Add New Digital Input](#)
[Add New ENVIROMUX-SDA Sensor](#)

Remote Digital Inputs					
Conn.	Description	Type	Value	Status	Action

[Add New Remote Digital Input](#)

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

Add New Digital Input

Add New Digital Input

Connector Select which connector the digital input will be 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”.

Digital Input Configuration

Digital Input Settings

Description
Descriptive name for the digital input

Normal Status
Select the normal status for the digital input

Refresh Rate
The refresh rate at which the digital input view is updated

Group Settings

Schedule Settings

Alert Settings

Disable Alerts Disable alert notifications for this digital input

Alert Delay
Duration the digital input must be out of normal status before alert is generated

OPERATION

When the ENVIROMUX-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

The screenshot shows the Vibration Status interface. At the top, it displays 'Type: Digital Input' and 'Connector:2'. Below this, a large blue box contains the word 'Closed' in white. Underneath, another blue box shows 'Status: Normal'. There are controls for 'Handle Alert' (Dismiss) and 'Apply Changes'. The 'Last alert was at:' field shows 'Never'. At the bottom, there are buttons for 'Cycle Sensor Power' and 'Configure'.

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

Vibration Status

The screenshot shows the Vibration Status interface in an alarm state. It displays 'Type: Digital Input' and 'Connector:2'. A large blue box contains the word 'Open' in red. Below it, a blue box shows 'Status: Alarm'. The 'Handle Alert' dropdown is set to 'Dismiss'. The 'Last alert was at:' field shows '08-31-2009 08:00:10 PM'. At the bottom, there are buttons for 'Cycle Sensor Power' and '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					
Conn.	Description	Type	Value	Status	Action
1	Sensor #1.1	Vibration	Closed	Normal	View Edit Delete

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

ENVIROMUX-VSSB

ENVIROMUX-VSSBD

SPECIFICATIONS

	ENVIROMUX-VSSB	ENVIROMUX-VSSBD
Voltage	5VDC	5VDC
Voltage Source	ENVIROMUX-xD through CATx cable	AC Adapter
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.

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