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E-SDS(-CE)
E-SDS(-CE)PA
SMOKE DETECTION SENSOR

Installation Instruction

The E-SDS(-CE) is a smoke detection sensor intended for connection to an NTI Enterprise Environment Monitoring System (SYSTEM) for use in detecting smoke in a server cabinet environment.   When properly connected, this sensor will provide signals to the SYSTEM that with proper configuration will result in alert messages being sent to the administrator of the SYSTEM.   The E-SDS(-CE) has screw terminals for easy user connections.

Options:
- E-SDS-**PA** also includes a 12VDC (regulated) AC adapter with country-specific line cord (add "**-PA**" to the model number).
- E-SDS-**CE**(PA):   CE certified (add "**CE**" to the model number
- E-SDS-**CE-E7**: CE certified model with pre-wired 7 foot cable and coupler (can be extended 1000 ft with 24AWG CATx cable) for plug-in to RJ45 Sensor port or wired pigtail to a Digital Input.

Model	Regulatory Approvals	12VDC adapter
E-SDS	UL	No
E-SDS-PA	UL	Yes
E-SDS-CE	CE,RoHS	No
E-SDS-CEPA	CE,RoHS	Yes
E-SDS-CE-E7	CE,RoHS	No

Note: The E-SDS(-CE)(PA) is NOT intended to be used as a primary fire and smoke detection device.

Disconnect the Base

Remove the base from the detector head.   To remove the base, locate the long and short alignment marks on the side of the base. When the detector head is locked to the base, the alignment mark on the detector head lines up with the long alignment mark on the base (see image below).   To release the base, rotate the base to align the shorter alignment mark on the base with the mark on the detector head.   Once they are aligned, pull the detector head apart from the base.
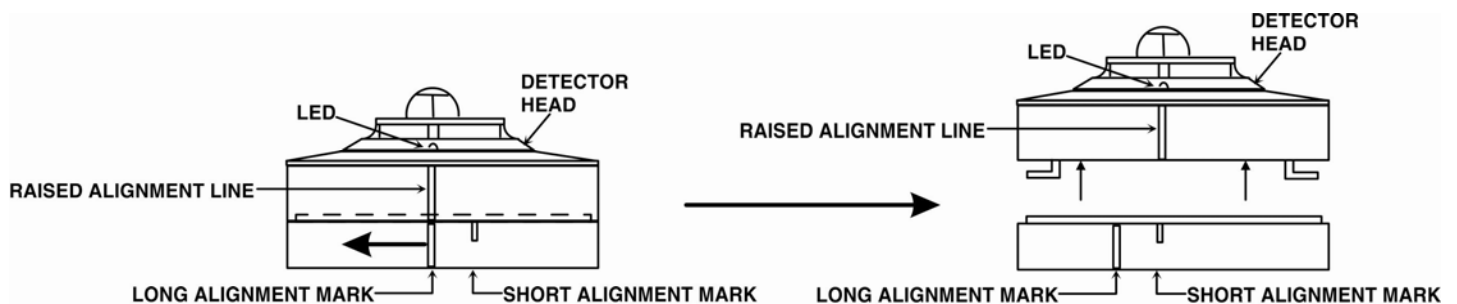
Rotate the base to align the alignment line in the detector head with the short alignment mark in the base.

Once they are aligned, pull the detector head apart from the base.

Install the Base
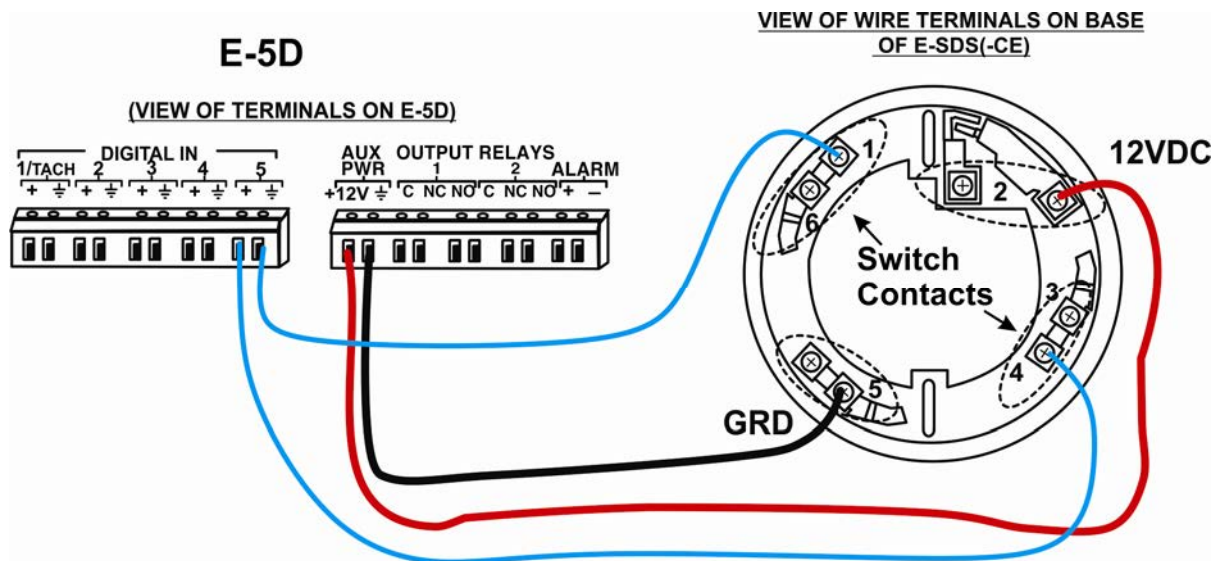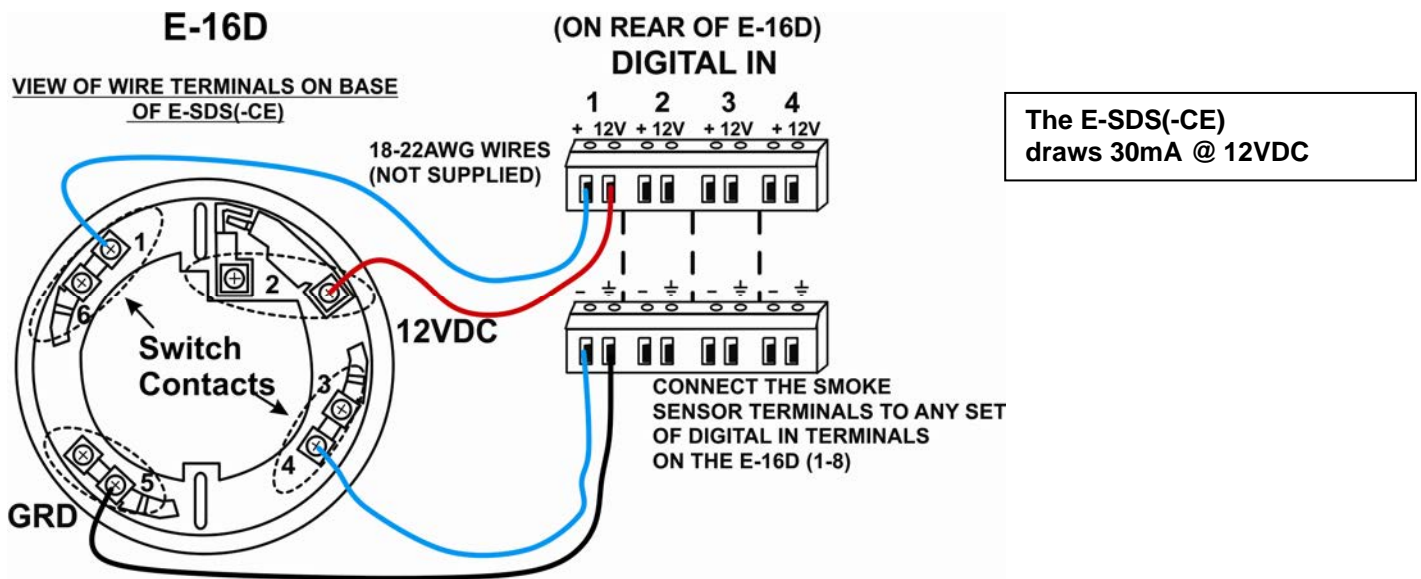Mount the base of the E-SDS(-CE)   where smoke detection is desired.
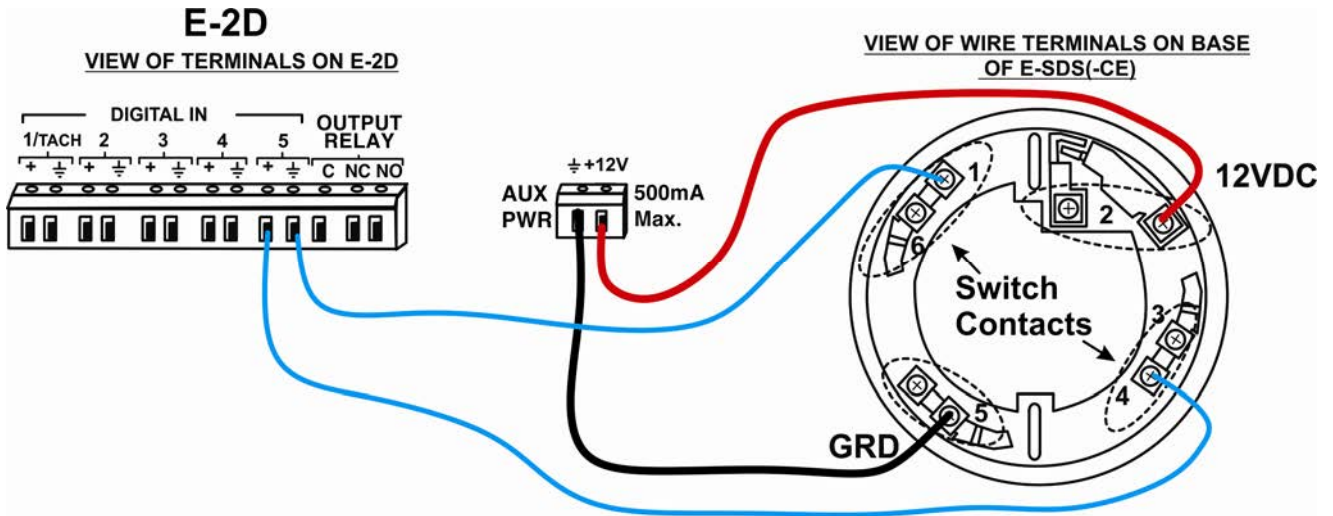
Switch Contact Connection

1. Connect two 18-22 awg wires (not supplied) to "Digital In" terminals on the E-16D (sets 1-8) , "Digital In" terminals on the E-MINI-LXO, E-2D and E-5D (sets 1-5) or any set of dry contacts on the E-MINI (set 1, 2, 3 or 4).
2. Connect the other end of those two wires to the smoke detection sensor base at terminal set 1-6 and 3-4.

Power Connection

For Model E-SDS(-CE):

1. Connect two 18-22awg wires (not supplied) between the E-16D and the E-SDS(-CE) as shown below.
   (Wiring for E-2D and E-5D also shown.)
   a. Connect one wire between "12V" on the SYSTEM and terminal 2 on the smoke detector.
   b. Connect the other wire between " $\perp$ " (ground) on the SYSTEM and terminal 5 on the smoke detector.

2. Be sure to tighten terminals to secure each conductor.

The E-SDS(-CE) draws 30mA @ 12VDC

E-2D

VIEW OF TERMINALS ON E-2D

VIEW OF WIRE TERMINALS ON BASE OF E-SDS(-CE)
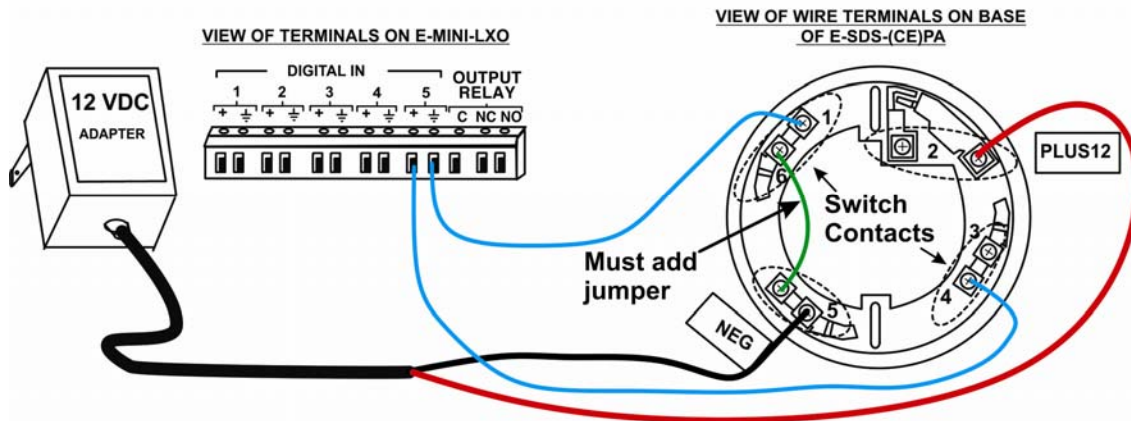
12VDC

Switch Contacts

GRD

For Model E-SDS-(CE)PA:

When a 12VDC power supply is not available on the SYSTEM (for example, E-MINI and E-MINI-LXO do not include terminals to provide 12VDC power to sensors), model E-SDS-(CE)PA can be used.
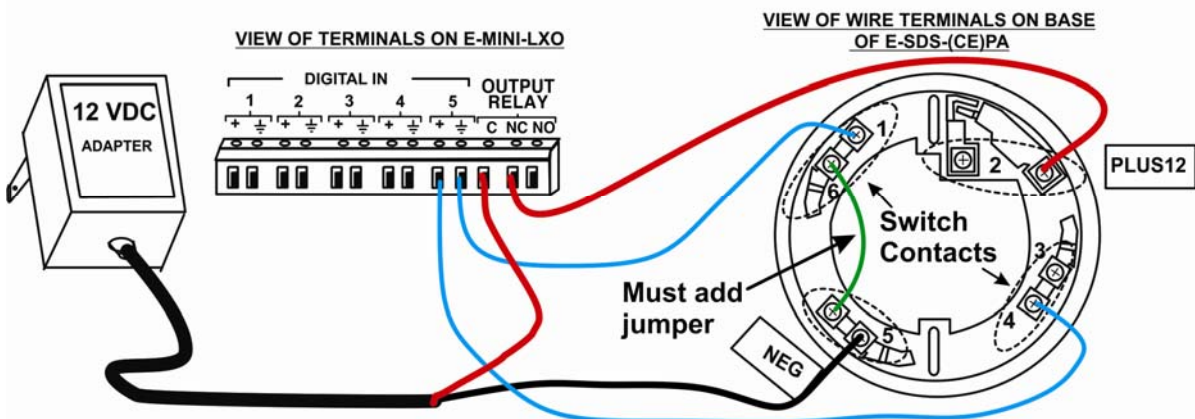
1. Connect the AC adapter wire labeled "PLUS 12" to terminal 2 on the smoke detection sensor.
2. Connect the AC adapter wire labeled "NEG" to terminal 5 on the smoke detection sensor.
3. Add a jumper wire between terminals 5 and 6 on the smoke detector.
4. Be sure to tighten terminals to secure each conductor.

E-MINI-LXO

VIEW OF TERMINALS ON E-MINI-LXO

VIEW OF WIRE TERMINALS ON BASE OF E-SDS-(CE)PA

12 VDC ADAPTER

PLUS12

Switch Contacts

Must add jumper

NEG

> **Wired using this method the smoke detector must be manually power-cycled in order to reset it when it goes into alert.**

E-MINI-LXO

VIEW OF TERMINALS ON E-MINI-LXO

VIEW OF WIRE TERMINALS ON BASE OF E-SDS-(CE)PA

12 VDC ADAPTER

PLUS12
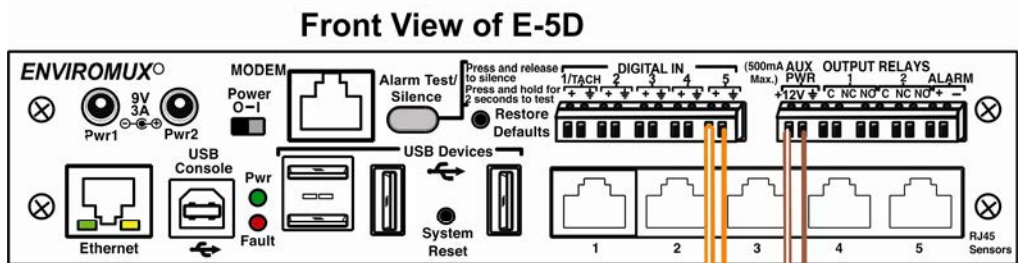
Switch Contacts

Must add jumper

NEG

> **Wired using this method the smoke detector can be power-cycled through the web interface when it is in alert.   Make sure that no sensors are configured to activate the output relay when in or out of alert. (See page 7)**

E-MICRO-T(RHP)

VIEW OF WIRE TERMINALS ON BASE
OF E-SDS(-CE)PA
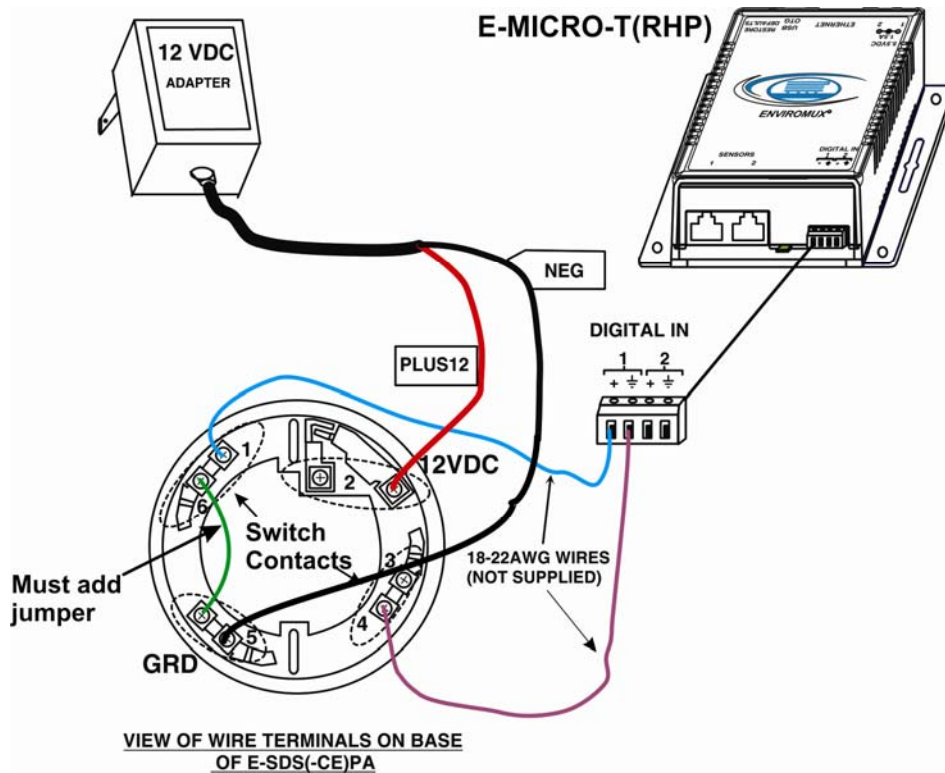
For Model E-SDS-CE-E7:

The E-SDS-CE-E7 includes a 7 foot pre-wired cable with RJ45 connector (wiring shown below) for plug in to either an available RJ45 Sensor port in an E-2D/5D/16D or into a pigtail wired to a Digital Input on an E-2D/5D/16D.   No additional power supply is required. The 7 foot cable can be extended to up to 1000 feet using a CAT5 patch cable (minimum 24AWG) using the supplied RJ45 coupler.

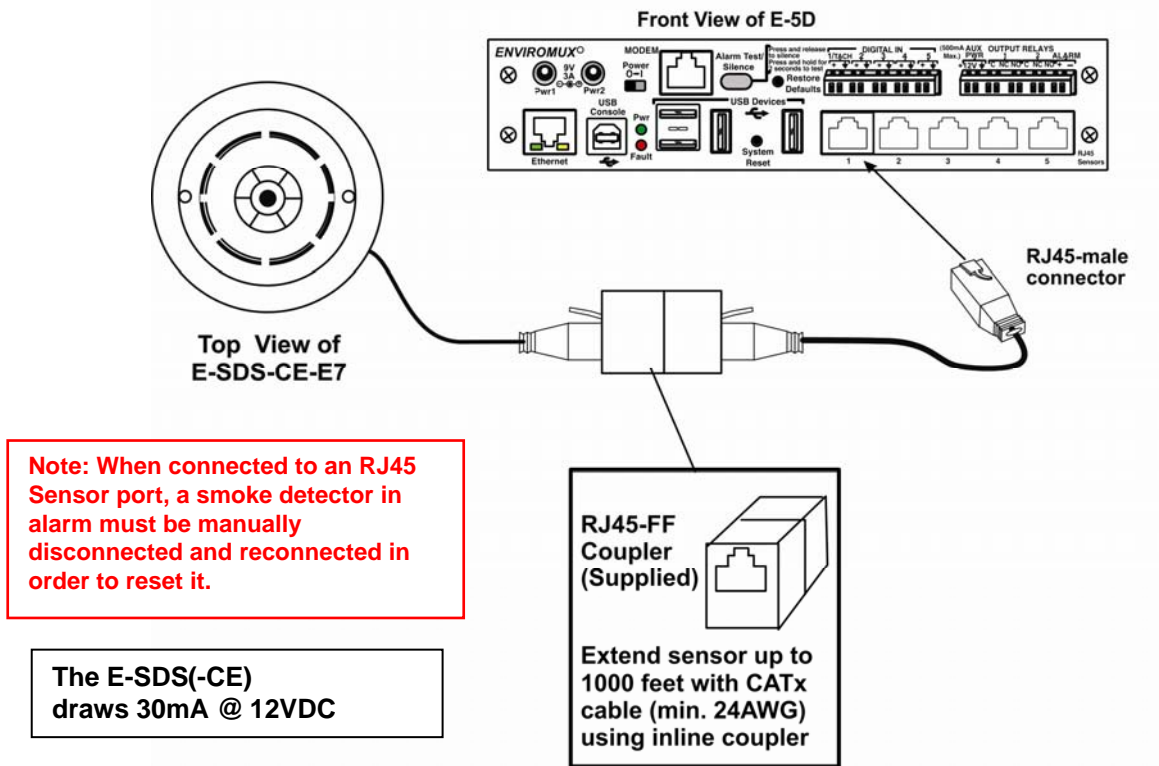## Wiring method using a pigtail connected to Digital Input

The E-SDS(-CE)
draws 30mA @ 12VDC

Front View of E-5D

CAT5 Pigtail

orange

wht/orange

wht/
brown

brown

1 2 3 4 5 6 7 8

(Using CATx cable wired to
T568B standard)

4

Connection method using a pigtail connected to RJ45 Sensor port

Front View of E-5D

Top View of E-SDS-CE-E7

RJ45-male connector

> **Note: When connected to an RJ45 Sensor port, a smoke detector in alarm must be manually disconnected and reconnected in order to reset it.**

The E-SDS(-CE) draws 30mA @ 12VDC

RJ45-FF Coupler (Supplied)

Extend sensor up to 1000 feet with CATx cable (min. 24AWG) using inline coupler

To wire your own CATx patch cable to an E-SDS(-CE) sensor, follow the wiring instruction below.

Wiring when connected to "RJ45 Sensors" socket
(Applicable to E-xD Models only)

VIEW OF WIRE TERMINALS ON BASE OF E-SDS(-CE)

CATx Cable, can be extended up to 1000 feet (Minimum 24AWG)

12VDC

Switch Contacts

GRD

brown
wht/brown
orange
wht/orange

1 2 3 4 5 6 7 8

View looking into RJ45 Socket
(Using CATx cable wired to T568B standard)
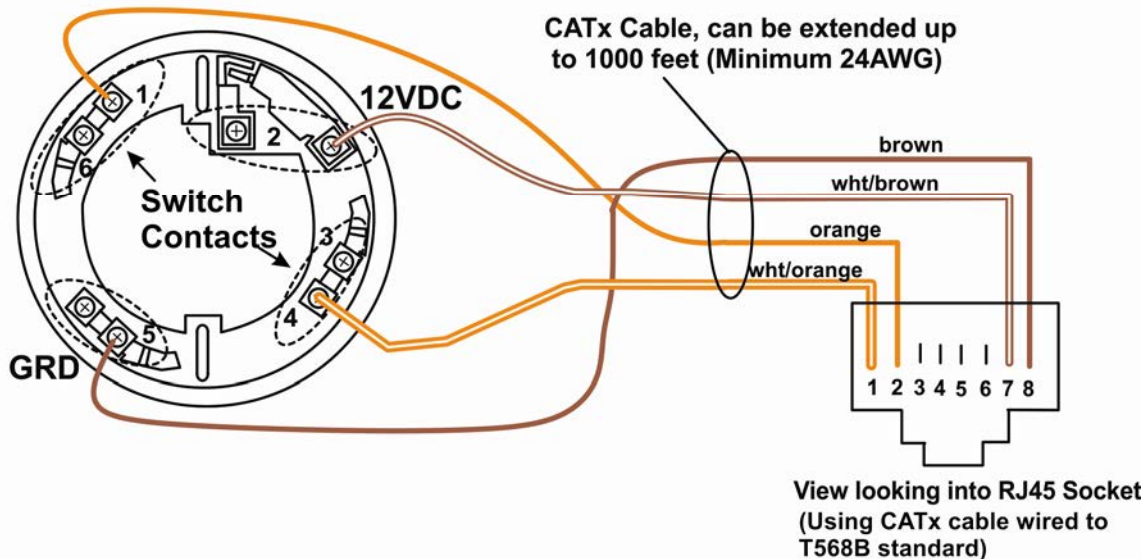
Install the head
1. Align the raised line on the head to the short raised line on the base as shown below.
2. Rotate the head clockwise until the raised line on the head aligns with the longer raised line on the base.
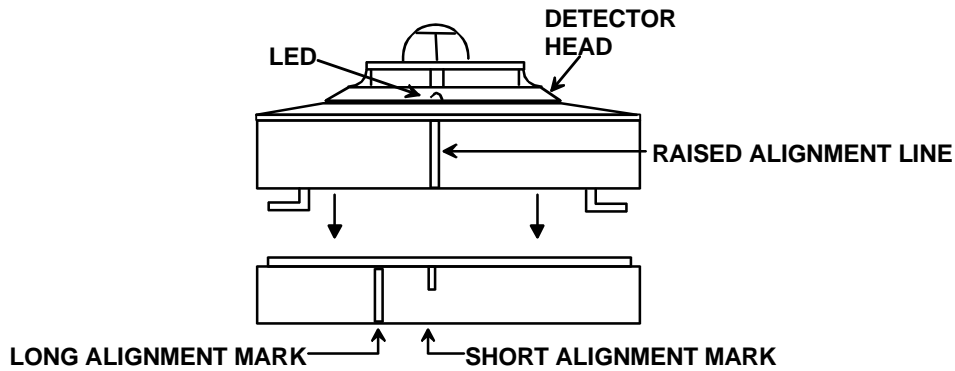
Operation
1. Connect the AC adapter to a 100-240VAC power source. The LEDs on the E-SDS(-CE) will blink red to indicate the sensor is functioning and in status-ready condition.   The LEDs will illuminate solid red when smoke is detected.

2. Configure the SYSTEM to report signals from the connected dry contact sensor as smoke detection sensor alerts. (Refer to SYSTEM manual for details on configuration- see also examples on next pages.) When smoke is detected, the switch terminals on the E-SDS(-CE) will close to generate an alert message.

For maintenance and testing instruction, see the instructions that are included from the sensor manufacturer with this kit.
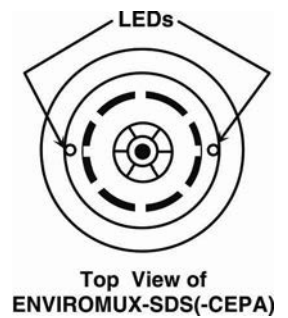
Cycle Sensor Power on E-xD Models

When the smoke detection sensor senses smoke and an alert condition is triggered, in order to reset the smoke detector to a ready state after the presence of smoke has been resolved, the smoke detector must be power-cycled.

A "Cycle Sensor Power" button (below) is provided for each sensor connected to the "Digital In" terminals on the E-16D (locally-connected Digital Inputs only). To momentarily disrupt power to any sensor connected to a Digital Input terminal, click on this button.   The 12VDC power will be disrupted to the sensor for 5 seconds and then automatically restored.

Note: On E-5D and -2D,   the "Cycle Sensor Power" will cause the "AUX PWR" terminals to cycle power.   This will only be effective for the smoke detection sensor if the sensor is being powered from these terminals.   If your sensor is powered, for example, from an AC adapter, the "Cycle Sensor Power" button will have no effect on that sensor, but it will still cycle power on the "AUX PWR" terminals, disrupting any device getting power from these terminals for 5 seconds. Keep this in mind if more than one sensor (or device) is being powered from these terminals.

Application Note:

A smoke detector connected to an RJ45 Sensor Port does not have "Cycle Sensor Power" button and must be manually disconnected (unplugged) and reconnected in order to reset it.   To use this feature, make sure the smoke detector is wired to a Digital Input.

Cycle Sensor Power on E-MINI-LXO

The power to the smoke detector can also be power-cycled on the E-MINI-LXO when wired as shown on the lower image on page 3.   If the output relay is used to control power to the smoke detector, the output relay can be manually activated (to open power to the smoke detector) and then deactivated (to restore power to the smoke detector.

When wired in this fashion, make sure that none of the sensors are configured to have the output relay status change to "Active".   Both fields (below) must be set to "Inactive".   Otherwise, when the relay is active the smoke detector will be powered OFF.

	Send alerts for this digital input via SMS
Associated Output Relay	None ▾
	Name of the output relay that can be controlled by this digital input
Output Relay status on alert	Inactive ▾
	Status of the output relay when going to alert
Output Relay status on return from alert	Inactive ▾
	Status of the output relay when returning from alert

Make sure the Output Relay status for both fields in all sensor configurations is set to "Inactive" if the output relay is used to power the smoke detector.

Monitoring	**Output Relay #1 Status**
Summary	**Type: Output Relay**
Sensors	**Inactive**
Digital Inputs	
IP Devices	
Output Relays	Set Output: Deactivate ▾ Apply Changes
IP Cameras	Configure
Administration	
Log	
Support	
Logout	

To power-cycle the smoke detector using the web interface, set the output to "Activate", click "Apply Changes", then set to "Deactivate" and click "Apply Changes" again.

Digital Input Configuration

Digital Input Settings

Description	Smoke Detector
	Descriptive name for the digital input
Group	1
	Select which group the digital input belongs to
Normal Status	Open
	Select the normal status for the digital input
Refresh Rate	20 Sec
	The refresh rate at which the digital input view is updated

Alert Settings

Disable Alerts	☐
	Disable alert notifications for this digital input
Alert Delay	1 Sec
	Duration the digital input must be out of normal status before alert is generated
Notify Again Time	4 Hr
	Time after which alert notifications will be sent again
Notify on return to normal	☐
	Send a notification when this digital input returns to normal status
Auto acknowledge	☑
	Automatically acknowledge alert when digital input returns to normal status
Enable Syslog Alerts	☑
	Send alerts for this digital input via syslog
Enable SNMP Traps	☑
	Send alerts for this digital input via SNMP traps
Enable E-mail Alerts	☑
	Send alerts for this digital input via e-mail
E-mail Subject	Smoke Detected
	Subject of e-mails sent for alerts
Attach IP camera capture to e-mail	☑ Bench Camera
	Attach captured image from selected IP camera to alert e-mail
Enable SMS Alerts	☐
	Send alerts for this digital input via SMS
Associated Output Relay	Output Relay #1
	Name of the output relay that can be controlled by this digital input
Output Relay status on alert	Inactive
	Status of the output relay when going to alert
Output Relay status on return from alert	Inactive
	Status of the output relay when returning from alert

Data Logging

[Save]

Example of sensor configuration in E-MINI-LXO

New Sensor Configuration

Digital Input Settings

Description
Smoke Detector
Descriptive name for the digital input

Group
1 ▾
Select which group the digital input belongs to

Normal Status
Open ▾
Select the normal status for the digital input

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

⊞ Alert Settings

⊞ Data Logging

[Save]

Alert Simulation

[Simulate Alert] [Clear Alert]

Example of sensor configuration in E-16D/-5D/-2D

Configure Alert

Alert Settings

Associated Sensor
Digital Input #1
Sensor associated to this alert

Groups
☐ Group 1 ☐ Group 2 ☐ Group 3 ☐ Group 4 ☐ Group 5 ☐ Group 6 ☐ Group 7 ☐ Group 8

Trigger Event
Closed ▾

Alert Delay
0   (sec)
Duration the sensor must be out of thresholds before alert is generated

Auto Acknowledge
☐
Automatically acknowledge alert when sensor returns to normal status

Notify on return to normal
☐
Send a notification when this sensor returns to normal status

Notify Again Time
0   (min)
Time after which alert notifications will be sent again

Enable Syslog
☐
Send alerts for this event via syslog

Enable SNMP Traps
☐
Send alerts for this event via SNMP traps

Enable E-mail Alerts
☐
Send alerts for this event via e-mail

Enable SMS Alerts
☐
Send alerts for this event via SMS messages

[Save]

Example of sensor configuration in E-MICRO-T(RHP)

Warranty Information

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at **(800) 742-8324** (800-RGB-TECH) or **(330) 562-7070** or visit our website at http://www.networktechinc.com for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

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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.

> **Note: The E-SDS(-CE)(PA) is NOT intended to be used as a primary fire and smoke detection device.**

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