

# Using Closure Sensors

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You can configure CompuSat to sense closures. You can use various digital input/output boards that provide a range of input/output types.

When controlling these switches, CompuSat displays each as a small, recessed rectangular area on the bottom or right side of the screen. When the sensor is open, CompuSat displays it in one color with one label, and when the sensor is closed, CompuSat displays it with a different color and label. You can specify the labels and colors to use for each sensor in your system.

## Sensor Descriptions

The following table describes each sensor type.

Switch type	Description
<b>Latched</b>	Used to latch sensor closures: when the sensor is closed, the display flashes with the closed label. When the sensor is subsequently opened, the display stops flashing but the closed label remains, indicating a latch. The operator can then clear the latch by clicking on the display.  The fault set and latch cleared times are recorded in the COMPUSAT.LOG file when sensor logging is enabled.
<b>Standalone</b>	Used to visually display the state of a closure.
<b>TWTA Remote/Local</b>	Used to monitor the Remote/Local switch of a TWTA and to generate a TWTA fault when the TWTA is in Local.

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Switch type	Description
Uplink Protection Sensor	Used to generator a fault to the associated uplink when the closure is closed.
Warning Flash	Used to visually display the state of a closure. This sensor type is similar to the Standalone type; the difference is that when this sensor is closed, the display flashes.

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## Configuring Closure Sensors

You can define sensors as site data or machine data:

- Site sensors can be controlled by remote control
- Machine sensors are local to the machine on which they are defined.

In general, you should use site-configured sensors unless you have a specific reason for locally configuring the sensor.

To configure a site sensor, follow these steps:

1. Select *Site Configuration* from the Configuration menu.
2. Click the *Auxiliary Device Setup* button. CompuSat displays the Auxiliary Device Setup screen, which is shown in [Figure 1](#).
3. Select the *New* menu, and then enter a name for the sensor that you are adding.
4. Click on the Model drop-down list and select *Closure Sensor*.

Figure 1 The Auxiliary Device Setup screen

**Auxiliary Device Setup**

New Copy Rename Delete

Name: MySensor

Model: Closure Sensor

Used as: Standalone Sensor

Closure Switch Names & I/O Pin

IO Position: Switch Digital I/O Line 1

Open Label: TestSensorOpen Green

Closed Label: TestSensorClosed Red

Port: 206 Driver: DIO32B Digital I/O

Advanced

CLOSE About Device

5. Click the *Used as* drop-down list and select the type of sensor that you are defining.

Note that some switch types must be associated with a device. For example, an Uplink Protection sensor requires the uplink being protected. If your sensor requires a device, CompuSat displays a field from which you must select the device from the drop-down list.

6. Click the *I/O Position* field and select the input/output line of the board that you want to use for this sensor.

Each sensor must have use its own, unique input/output line.

7. Enter a label and select a color in the *Open Label* and *Closed Label* fields. CompuSat uses these labels and colors to display the sensor.

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8. Use the *Port* and *Driver* fields to define the type of digital input/output device to use for the sensor. Refer to the installation notes for the board you are using to make sure that you enter the correct values.
9. Close the Auxiliary Device Setup screen.
10. Click the *OK* button in the Site Configuration screen.
11. Click on the *YES* button to save the changes to your configuration.

## Modifying Sensor Preferences

You can use the following preferences to customize your sensors:

- Your sensors can be displayed horizontally at the bottom of the CompuSat front panel, or vertical on the right side of the front panel. The default is to display them horizontally.

To display the sensors vertically, follow these steps:

- a. Select *Preferences* from the Configuration menu.
  - b. Click the *Drawing Preferences* button. CompuSat displays the Drawing Preferences screen.
  - c. Click the *Vertical Switches* checkbox.
  - d. Modify the *Vertical Switch Space* value as required to change the spacing between switches on the display.
  - e. Click the *OK* button in the Drawing Preferences screen.
  - f. Click the *OK* button in the Preferences screen.
- All sensor activity can be logged in the COMPUSAT.LOG file. To enable this, follow these steps:
    - a. Select *Preferences* from the Configuration menu.
    - b. Click the *Logging Preferences* button. CompuSat displays the Logging Preferences screen.
    - c. Click the *Log Switch & Sensor Activity* checkbox.
    - d. Click the *OK* button in the Logging Preferences screen.
    - e. Click the *OK* button in the Preferences screen.