

## TEMPERATURE SENSOR

This sensor measures temperature in degrees Celsius or Fahrenheit. It works with all SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk-8* base unit. You can even poll temperature and humidity values from a network management system with integrated SNMP trap and polling support (*MIB file supplied*).

### Specifications

- No calibration required.
- **Available Lengths:** 1.5m (5 feet)
- **Sampling Rate:** 1 Reading per Second
- **Temperature Measurement Range:** -40°C to +75°C (-40°F to +167°F)
- **Temperature Measurement Accuracy:** ±0.2°C (±0.4°F)
- **Temperature Measurement Resolution:** 1°C (1°F)



PART# SH-TMP-00



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## WATERPROOF TEMPERATURE SENSOR

This sensor measures temperature in degrees Celsius or Fahrenheit. It works with all SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk-8* base unit. You can even poll temperature and humidity values from a network management system with integrated SNMP trap and polling support (*MIB file supplied*).

### Specifications

- No calibration required.
- **Available Lengths:** 4.5m (15 feet)
- **Sampling Rate:** 1 Reading per Second
- **Temperature Measurement Range:** -40°C to +75°C (-40°F to +167°F)
- **Temperature Measurement Accuracy:** ±0.2°C (±0.4°F)
- **Temperature Measurement Resolution:** 1°C (1°F)



PART# SH-W-TMP-15



## TEMPERATURE/HUMIDITY COMBO SENSOR

**Our most popular sensor!** This dual-purpose sensor can measure both temperature and humidity. It works with all SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk-8* base unit. You can even poll temperature and humidity values from a network management system with integrated SNMP trap and polling support (*MIB file supplied*).

### Specifications

- No calibration required.
- **Available Lengths:** 1.5m (5 feet)
- **Sampling Rate:** 1 Reading per Second
- **Temperature Measurement Range:** -40°C to +75°C (-40°F to +167°F)
- **Temperature Measurement Accuracy:** ±0.2°C (±0.4°F)
- **Temperature Measurement Resolution:** 1°C (1°F)
- **Humidity Measurement Range:** 0 to 100% Relative Humidity
- **Humidity Measurement Resolution:** ±1%
- **Humidity Accuracy at 25°C:** ±5%



PART# SH-THS-00



## WATERPROOF TEMPERATURE/HUMIDITY COMBO SENSOR

This sensor measures temperature in degrees Celsius or Fahrenheit. It works with all SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk-8* base unit. You can even poll temperature and humidity values from a network management system with integrated SNMP trap and polling support (*MIB file supplied*).

### Specifications

- No calibration required.
- **Available Lengths:** 1.5m (5 feet)
- **Sampling Rate:** 1 Reading per Second
- **Temperature Measurement Range:** -40°C to +75°C (-40°F to +167°F)
- **Temperature Measurement Accuracy:** ±0.2°C (±0.4°F)
- **Temperature Measurement Resolution:** 1°C (1°F)



PART# SH-THS-W15



## AC VOLTAGE SENSOR

The AC voltage detector is used to indicate the presence or absence of AC line voltage. As an example, this is useful to tell when the UPS is running on battery power. It indicates an ALARM/NORMAL condition in software and also via an LED mounted on the sensor. This sensor works with all SensorHawk base units (**SensorHawk-2**, **SensorHawk-8** and **SensorHawk8/20**) as well as the **SecurityHawk** base units. SNMP traps and sensor polling available (*MIB file supplied*).



PART# SH-ACV-00



### Specifications

- **Measurement Range:** Detects voltage at 50V AC to 250 VAC
- **Measurement Indication:** Alarm or Normal
- Visual LED indicator on sensor shows if voltage is present.
- **Sensor Type:** Open / Closed Contact Switch
- **Sampling Rate:** Multiple Readings per Second
- **Available Lengths:** 1.5m (5 feet)
- **Communications Cable:** RJ45 jack to sensor using UTP Cat 5 wire
- **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.

## DC VOLTAGE SENSOR

The DC voltage detector is used to indicate the presence or absence of DC line voltage. Readings are available in both an absolute value and a percentage of full scale. Full scale is user programmable with both the base and top voltage from -60 to 0 or 0 to 60 volts. This sensor works with all SensorHawk base units (**SensorHawk-2**, **SensorHawk-8** and **SensorHawk8/20**) as well as the **SecurityHawk** base units. SNMP traps and sensor polling available (*MIB file supplied*).



PART# SH-DCV-00



### Specifications

- **Measurement Range:** -60V DC to +60v DC
- **Measurement Accuracy:**  $\pm 1\%$
- Visual LED indicator on sensor shows if voltage is present.
- **Conversion Time:** 280  $\mu$ sec
- **Available Lengths:** 1.5m (5 feet)
- **Sampling Rate:** Multiple Readings per Second
- **Communications Cable:** RJ45 jack to sensor using UTP Cat 5 wire
- **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.

## 4-20 mAMP CURRENT-TO-VOLTAGE CONVERTER

The 4-20 mA signal converter is used to integrate the Base Unit with a 4-20 mA transmitter. 4-20 mA technology is used to communicate analog signals over long distances where electrical interference is a problem. This solution is often used in the process control industry to collect the analog values from a wide array of remote sensors. Current signals are much less susceptible to noise than voltage signals. A voltage signal can be converted to current and then broadcast over a long distance before it is converted back to voltage and read by the Base Unit.

4-20 mA transmitters are common in the industry for use with high quality sensors. With the 4-20 mA converter these sensors can now be integrated into the SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk* base units, enhancing their value with the addition of graphing, web interface, email interface, thresholds, and limits.

### Specifications

- **Cable Length:** 1.5m (5 feet)
- Converts current levels from 4 – 20 mA to 0.8 – 4.0 V voltage level
- **Maximum Linearity:**  $\pm 0.09\%$
- 2 LED show status of the current loop and the power supply
- **Input Current Range:** +4 mA to +20 mA
- **Output Voltage Range:** +0.8 V to +4.0 V
- **Maximum Accuracy:**  $\pm 0.15\%$  Full Scale ( $\pm 0.3\%$  Full Scale, Maximum)
- **Power Supply:** +5 V DC
- **Power Consumption:** 25 mW
- **Operating Temperature:**  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$
- **Input Connector:** two terminal, lin(+) and lin(-), for current loop
- **Output Connector:** RJ45 jack to converter using UTP Cat 5 wire
- **Dimensions:** 6.5cm (2.6 in) x 6.2cm (2.4 in) x 1.5cm (0.6 in)
- **Weight:** 80 grams (2.8 oz)



PART# SH-VC-00



## LIQUID DETECTION SENSOR

**Worried about water leaks, sprinkler systems or floods?** Detect these conditions quickly with this water/liquid detection sensor. This sensor is much more precise than most commercially-available water sensors, and can even detect the presence of distilled water. It works with all SensorHawk base units (**SensorHawk-2**, **SensorHawk-8** and **SensorHawk8/20**) as well as the **SecurityHawk** base units. SNMP traps and sensor polling available (*MIB file supplied*).

### Specifications

- No calibration required.
- Sensor can function while immersed in water.
- **Sensor Type:** Microprocessor Controlled Capacitance Measurement Technology\*
- **Measurement Range:** Wet or Dry / -20°C to +60°C (-4°F to +140°F)
- **Available Lengths:** 4.5m (15 feet) / 18.3m (60 feet) / 30.5m (100 feet)
- **Sampling Rate:** 3 Readings per Second (Minimum)
- **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.

\* Patent Pending



PART# SH-LD-15



## MOTION SENSOR

This sensor detects motion or movement. It can be mounted to a wall or ceiling, and works with all SensorHawk base units (**SensorHawk-2**, **SensorHawk-8** and **SensorHawk8/20**) as well as the **SecurityHawk** base units. SNMP traps and sensor polling available (*MIB file supplied*).

### Specifications

- No calibration required.
- Surface mount for wall or ceiling installation.
- Weather resistant design.
- **Available Lengths:** 1.5m (5 feet)
- **Sensor Type:** Infrared, Dual Angle
- **Detection Angle:** 60°
- **Maximum Working Distance:** 3.0m (9.8 feet)
- **Operating Temperature:** -20°C to +50°C (-4°F to +122°F)
- **Dimensions:** 65 mm (2.6 in) x 60 mm (2.4 in) x 35 mm (1.4 in)
- High immunity to Radio Frequency Interference (RFI)



PART# SH-MD-00



## SMOKE DETECTOR

This sensor detects the presence of smoke. It works with all SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk* base units. SNMP traps and sensor polling available (*MIB file supplied*).

### Specifications

- No calibration required.
- LED indicator visually indicates alarm status.
- **Available Lengths:** 1.5m (5 feet)
- Receive an email message if an alert condition is triggered, or start up another piece of equipment with optional *Sensor Controlled Relay*.
- **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.
- **Mounting Options:** Ceiling mount recommended, mounting hardware supplied.
- **Sensor Type:** Open (Smoke Not Detected) / Closed (Smoke Detected) Contact Switch



PART# SH-AFS-00



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## AIR FLOW SENSOR

**Heat dissipation is critical in today's wiring closets and datacenters.** If the flow of air stops, your equipment might just stop working too. This sensor measures air flow rates and works with all SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk* base units. SNMP traps and sensor polling available (*MIB file supplied*).

### Specifications

- No calibration required.
- **Available Lengths:** 1.5m (5 feet)
- **Sampling Rate:** 1 Reading per Second
- **Measurement Sensitivity:** 0% to 100% based on fan rotation speed.
- **Sensor Type:** Thermistor
- **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.



PART# SH-SK-00



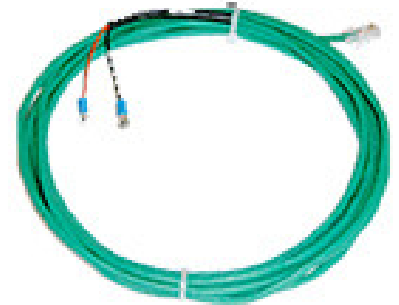
## DRY CONTACT SENSOR

The Dry Contact Smart Sensor is a simple connection to burglar alarms, fire alarms or any application that requires monitoring by the **SensorHawk** and **SecurityHawk** Base Units. Dry contact sensors are user definable and can be used to detect many different inputs such as UPS status, security systems, air conditioning status.

These general purpose switches can be either input or output. When used as an output it can source up to 20 mAmps. You can select the output voltage by setting the Output Level to a Low or a High. When set to Low the pin will output 0 volts. When set as a High the pin will output 5 volts. When used as an input a switch will retain any error condition until it is read via SNMP. Therefore if a switch encounters a critical condition at any time it must report that condition before it can return to a normal state.

### Specifications

- **Measurement range:** Alarm or Normal
- **Communications cable:** RJ-45 jack to sensor using UTP Cat 5 wire.
- **Sensor type:** open/closed contact switch
- **Input voltage range:** 0 to 5 volts Normal input voltage is settable under software
- **Measurement rate:** multiple readings every
- **Full autosense including disconnect alarm**



PART# SH-DCS-15



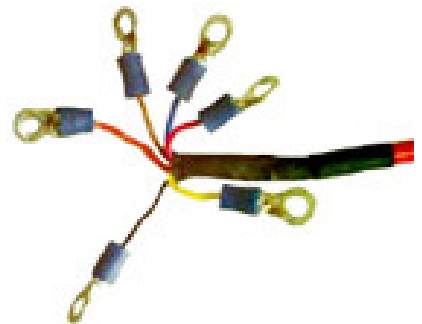
## 5 INPUT DRY CONTACT SENSOR

The 5 Input Dry Contact Smart Sensor is a simple connection to burglar alarms, fire alarms or any application that requires monitoring by the **SensorHawk** and **SecurityHawk** Base Units. Dry contact sensors are user definable and can be used to detect many different inputs such as UPS status, security systems, air conditioning status. The 5 Input Dry Contact Smart Sensor provides the ability to have up to 5 dry contact inputs per RJ45 port.

These Dry Contact ports can be used to monitor any Dry Contact inputs, just like the normal Dry Contact Smart Sensor Dry Contact ports, but, these ports can only be set to operate in the input mode. These additional sensors are labeled as ports 3 to 12. When used as an input a switch will retain any error condition until it is read via SNMP. Therefore if a switch encounters a critical condition at any time it must report that condition before it can return to a normal state.

### Specifications

- **Measurement range:** Alarm or Normal
- **Communications cable:** RJ-45 jack to sensor using UTP Cat 5 wire.
- **Sensor type:** open/closed contact switch
- **Input voltage range:** 0 to 5 volts Normal input voltage is settable under software
- **Measurement rate:** multiple readings every
- **Full autosense including disconnect alarm**



PART# SH-DCS-15-5



## SENSOR CONTROLLED RELAY

**Temperature getting too high? Turn on a fan - automatically. Motion detected? Turn on a light - automatically.** The Sensor Controlled Relay controls the electrical power to devices managed over the Internet. With easy configuration and integration with our SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk* base units, the Sensor Controlled Relay defines a new era in environmental management.

The Sensor Controlled Relay is easily controlled by any of our extensive selection of smart sensors. The relay can provide automatic responses to sensor alerts. Setting up the Sensor Controlled Relay is easy with its built in autosense feature and user friendly web interface. The device can also be monitored and controlled by external management systems via SNMP.

The Sensor Controlled Relay provides 1 high-power SPDT 5V relay with the maximum load up to 15A at 220 VAC. It includes Metal Oxide Varistors (MOVs) and Snubber circuits to protect the open contacts of the relays from the high voltage spikes or noise transients. It monitors the power & load and accepts a control signal which is sent from a base unit.

When a sensor goes to the chosen state, for example, High Critical, the Relay can be made to cycle, which will turn on and then turn off the external device for the selected period of time. Users can easily change the fields in the Relay Settings Menu according to their needs using the friendly web interface.

The unit has built in 16Amp circuit breaker and 15Amp fuse (380 VAC, 125 VDC) to give extra protection for the connected external devices from possible damages by electrical fault. Four onboard LEDs provide visual status indicators.



PART# SH-PRB-00-110

- **Relay Contact Rating:** 15 A @ 220 VAC, 25 VDC w/Resistive Load 8 A @ 220 VAC, 25 VDC with Inductive Load (P.F=0.4, L/R=7 mS)
- **Input Voltage:** 110 VAC (US Version) - 220 VAC (EU Version)      **Output Voltage:** 110 VAC (US Version) - 220 VAC (EU Version)
- **Cable Length:** 1.5m (5 feet)
- **Operating Voltage:** 380 VAC, 125 VDC Maximum
- **Power Consumption:** 5V @ 200mA
- **Power Protection:** 15Amp Fuse 380 VAC, 125 VDC
- **Contact Material:** AgCdO
- **Carry Current:** 16 A
- **Operating Current:** 16A Maximum
- **Switching Capacity:** 4,000 VA, 480W with Resistive Load 2,000 VA, 240W with Inductive Load (P.F=0.4) Maximum
- **Operating Temperature:** -40°C (-40°F) to 85°C (185°F)
- **Storage Temperature:** -40°C (-40°F) to 85°C (185°F)
- **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.
- **Dimensions:** 115 mm (4.5 in) x 80 mm (3.2 in) x 40 mm (1.6 in)
- **Weight:** ~250 g (~0.6 lbs)

## SIREN AND STROBE LIGHT

The combined strobe light and siren can add audio and visual alarms to your base unit. When triggered, the siren will generate a loud alarm sound and the strobe light will flash brightly, giving a clear alert of an alarm condition. The siren and alarm are both incorporated into one device - only one RJ-45 jack is needed for each combined siren/ alarm. When a combined siren / strobe light is plugged into the RJ-45 port, the base unit will auto detect the sensor, and it will display the status of the device.

The device can be triggered by any sensor connected to a SensorHawk base units (*SensorHawk-2*, *SensorHawk-8* and *SensorHawk8/20*) as well as the *SecurityHawk* base units, or even triggered manually for testing and drill purposes.



PART# SH-STR-00

### Specifications

- **Sensor Type:** Open / Closed Contact Switch
  - **Sampling Rate:** Multiple Readings per Second
  - **Cable Length:** 1.5m (5 feet) extendable up to 1,000 with approved lowcapacitance shielded cable or UTP
  - **Disconnect Alarm:** Relay alert if sensor becomes interrupted or disconnected.
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