



# Asentria® | Power Monitoring EventSensors

## AC/DC POWER MONITORING

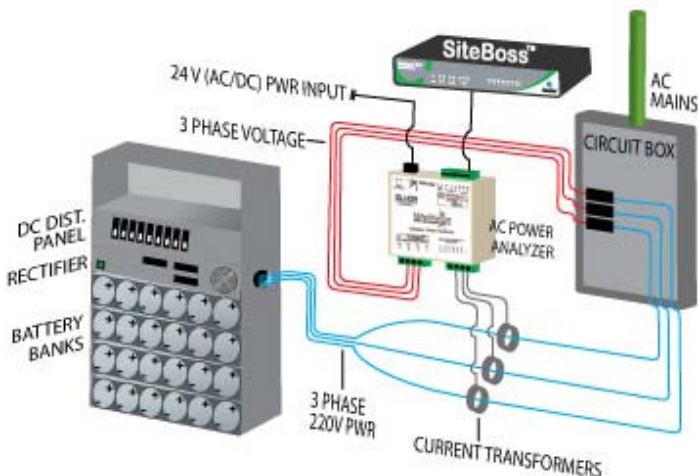
Asentria's power monitoring devices are capable of measuring single-phase, split-phase, or three-phase power loads up to 3000A when paired with the appropriate current transformers. Reports comprehensive per-phase and cumulative information including voltage, current, frequency, power factor, real/reactive power (W, VAR, VA), and real/reactive energy. Must use current transformers with this device.

- Power and current via transducers
- Phase and line voltage
- Three phase current
- Total kilowatts of three phases
- Active kilowatt of three phases/each phase
- Reactive kilowatt of three phases/each phase
- Power factor
- Frequency
- Bad Cells
- Alarms when batteries begin to discharge
- Monitor for blown fuses and tripped circuit breakers

### AC/DC POWER MONITORING APPLICATIONS\*

- AC Power Analyzer (ESS-APAC1 or ESS-APAC2) - Monitor up to 3-phases of main power and backup power, measure overall power usage, power quality.
- AC Current Transducer (ESS-TCAC1) - Monitor and measure AC current flow for up to 3 phases. Calculate power usage
- AC Current Transducer (ESV-TCACXXX) - Monitor AC current on a single phase.
- DC Current Transducer (ESV-TCDCXXX) - Monitor and measure DC current flow for entire site or components; calculate power usage
- AC Voltage Transducer (ESM-TVAC1) - Monitor and measure AC voltage levels
- AC Voltage Monitor (ESV-SVAC1) - Check presence of AC power
- AC Switch (ESC-SCAC1) - Monitor component on/off status via AC current flow

\* Some accessory devices output signals are compatible only with certain Asentria base-unit models. Also, some accessory devices require an external power supply. Contact Sales for more details.



AC Monitoring example where the AC power Monitor is connected to the rectifier and the circuit box and is passing data to the SiteBoss unit. This data can take the form of usage, on/off, etc.

## AC POWER ANALYZER

This AC Power Analyzer provides accurate three-phase AC measurements, as well as comprehensive per phase information, including Volts, Amps, Real Power, Reactive Power, Apparent Power, Watt-hours, VAR-hours, VA-hours, Power Factor, and Frequency. Capable of monitoring loads up to 3000A with the appropriate current transformers. Works with Asentria base units that have scripting capability - S450, S550, S571. Script to read RS485 protocol needed on base unit.

- External Power Supply Required: 24V AC/DC, 2W
- Input: 120-600V, 50/60Hz, single/split/three-phase, up to 3 mA-output transformers
- External Power Supply Required: 24V AC/DC, 2W (See P.31 for 24VDC supply)
- Output: RS485 serial (requires adapter and free serial port on a scripting-capable unit)
- Accuracy: 0.2%
- UL/CE listed



- AC Power Analyzer (ESS-APAC1)....\$690
- Add 25' wiring kit (/K25).....\$10
- Add 50' wiring kit (/K50).....\$20
- Add RS485 serial adapter (/485).....\$30
- Add 24VDC power supply (/P24).....\$80
- Example part #: ESS-APAC1/K25/485/P24

## 3-PHASE AC CURRENT TRANSDUCER

This 3-phase transducer offers inexpensive yet accurate true RMS monitoring of AC current and voltage in three independent circuits or one 3 phase circuit. Works with Asentria base units that have scripting capability - S450, S550, S571. Script to read RS485 protocol needed on the base unit.

- External Power Supply Required: 24V AC/DC, 2W (See P.31 for 24VDC supply)
- Input: up to 3 mA-output transformers
- Output: RS485 serial
- Accuracy: 0.5%
- UL/CE listed



- 3 Phase Transducer (ESS-TCAC1)....\$230
- Add 25' wiring kit(/K25).....\$10
- Add 50' wiring kit (/K50).....\$20
- Add RS485 serial adapter (/485).....\$30
- Add 24VDC power supply (/P24).....\$80
- Example Part #: ESS-TCAC1/K50/485/P24

## CURRENT TRANSFORMERS

Current transformers scale high input AC currents into a usable output range for AC transducers. Current transformers differ in their output current, and must be matched to the correct transducer. These mA-output current transformers are optimized for use with the ESS-APAC1 and ESS-TCAC1.

There are two styles: solid-core and split-core. The split-core style opens to clamp over a power wire without disconnecting it from its source. Cable is not included in the part number below. We recommend the sensor wiring kit (5000-043) listed in our Miscellaneous Accessories list (Page 31).

- Solid-Core, 0-50A, 13MM Wire Window (5004-004).....\$35
- Split-Core, 0-100A, 16MM Wire Window (5004-036).....\$50
- Split-Core, 0-200A, 19MM Wire Window (5004-005).....\$100





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## SINGLE PHASE AC CURRENT TRANSDUCER

This self-powered, solid-core AC current transducer works with any Asentria device that supports analog sensing. It provides a signal output of 0-5 VDC proportional to the AC current flowing through the core.

- 0-5VDC analog output
- UL/CE listed
- Solid-Core, 0-50A, 13MM Wire Window (ESV-TCAC50).....\$70
- Solid-Core, 0-100A, 13MM Wire Window (ESV-TCAC100).....\$70
- Add a 25' wiring kit (/K25).....\$10
- Add a 50' wiring kit (/K50).....\$10
- Example part #: ESV-TCAC50/K25



## AC VOLTAGE TRANSDUCER

This device accurately measures AC voltage levels, and provides a 4-20mA current-loop signal output proportional to the amount of AC voltage present. Voltage transformer is included. Self-powered.



- Measure AC levels up to 600V at 50/60Hz
- AC Voltage Transducer (ESM-TVAC1).....\$170
- Add 25' wiring kit(/K25).....\$10
- Add 50' wiring kit(/K50).....\$20
- Example part #: ESM-TVAC1/K50

## DC CURRENT (HALL EFFECT) TRANSDUCER

These devices output a voltage proportional to the amount of DC current flow. An integral split-core current transformer is included. External power supply required; or use with the 4VP Expansion Card which provides transducer power. Select the one that most closely corresponds to your DC current load for the best precision. 12' transducer cable included (P/N 2061-002).



- Power supply: 15VDC, 18mA. Use with 4VP Expansion card for combined power and sensing
- Output: 0-4VDC (V)
- Accuracy: 1%
- Wire window: 21mm
- UL/CE Listed

- 50 Amp (ESV-TCDC50).....\$45
- 100 Amp (ESV-TCDC100).....\$45
- 200 Amp (ESV-TCDC200).....\$45
- 300 Amp (ESV-TCDC300).....\$45
- 400 Amp (ESV-TCDC400).....\$45
- 500 Amp (ESV-TCDC500).....\$45

## AC CURRENT SWITCH SENSOR

This AC current sensor monitors the on/off status of electric loads such as fans, motors, heaters, AC units and tower lights. Output is a normally-open dry contact closure (C). Self-powered; solid core detects as little as 150mA.

- Solid-Core, 0-100A, 13MM wire window (ESC-SCAC1).....\$45
- Add 25' wiring kit(/K25).....\$10
- Add 50' wiring kit(/K50).....\$20
- Example part #: ESC-SCAC1/K50



## AC VOLTAGE MONITOR/SENSOR

This 120VAC sensing transformer provides a simple means of verifying AC voltage levels from a standard electrical outlet.



- Input: 0-120VAC, 10W
- Output: 0-12VDC
- AC voltage sensor (ESV-SVAC1).....\$20
- Add 25' wiring kit(/K25).....\$10
- Add 50' wiring kit(/K50).....\$20
- Example part #: ESV-SVAC1/K25

## DEVELOPING MARKETS

### AC POWER ANALYZER

This AC power analyzer measures three phase AC, voltage, current, active power, reactive power, apparent power, power factor, & frequency, with no special protection or shortening blocks necessary for install. Works with Asentria base units that have scripting capability - S450, S550, S571. Script to read RS485 protocol needed on base unit.

- Power supply: 120/240VAC, 3W
- Line power - no separate power supply needed
- Input: 30-600V, 50/60Hz, single/ split/three-phase, up to 3 5A-output transformers
- Output: RS485 serial
- Accuracy: 0.5%
- Not UL/CE listed



- AC Power Analyzer (ESS-APAC2).....\$235
- Add 25' wiring kit (/K25).....\$10
- Add 50' wiring kit (/K50).....\$20
- Add RS485 Serial Adapter (/485).....\$30
- Example Part #: ESS-APAC2/K50

### SOLID CORE CURRENT TRANSFORMER

Specialized for the power sector, this current transformer works specifically with the ESS-APAC2 AC Power Analyzer. This transformer is "Solid Core", which means that it will require you to disconnect a wire in order to install it.



- Measure between 0 and 200 Amps
- 0-50A, 660V, 23mm Wire Window (5004-080).....\$45

### SPLIT CORE CURRENT TRANSFORMER

Specialized for the power sector, this current transformer works specifically with the ESS-APAC2 AC Power Analyzer. This split-core transformer opens to clamp over a power wire without disconnecting it from its source. Cable is not included in the part number below. We recommend the sensor wiring kit (5000-043) listed in our Miscellaneous Accessories list.

- Measure between 15 and 300 Amps
- Max current of 660V
- 0-200A, 660V, 24mm Wire Window (5004-081).....\$80

