



Asentria® | EventSensor I/O Expansion

ES-I/O - Variable Monitoring & I/O Expansion



DESCRIPTION	CODE
8 Dry Contact Closure Sensor	ES-8C
8 Contact Closure Sensor - Isolated	ES-8CI
8 Analog Voltage Sensor	ES-8V
8 Low-Current Relay	ES-8R
8 4-20mA Sensor	ES-8M
8 Solid State Relay	ES-8SR
4 Contact & 4 Solid State Relay	ES-4C4SR
4 Contacts & 4 Voltage Sensor - Non-Isolated	ES-4C4V
4 Contact & 4 Isolated Voltage Sensor	ES-4VI4C
4 Contacts & 4 Low-Current Relay	ES-4C4R
4 Contacts & (4) 4-20mA Sensor - Non-Isolated	ES-4C4M
4 Contact & 4 Isolated 4-20mA Sensor	ES-4MI4C
4 Voltage Inputs & (4) +/-15 VDC Pwr Outputs	ES-4VP
Add a temperature sensor to any I/O Sensors	Add -T

IDEAL USE

In remote equipment cabinets for adding additional I/O points to a base SiteBoss unit either to more perfectly match the number of I/O points needed, or to give future scalability to add more I/O points should they become needed. EventSensors can also be used to monitor environmental variables at some distance from an Asentria base unit in a remote equipment enclosure.

To connect a second EventSensor to the first EventSensor in a daisy chain fashion, you can use our EventSensor cables (See miscellaneous accessories section), or a standard CAT5E Ethernet cable. For five or more linear EventSensor connections, be sure to check power usage requirements.

- Dimensions: 3.25 x 5.375 x 1.125 Inches / 8.26 x 13.65 x 2.86 Centimeters
- Operating Temperature: -25 to +85° C
- I/O terminal block: 16 pin pluggable type
- Communication port type: RJ45 "SensorJack", proprietary RS485, full duplex
- Power Usage: 30mA at 15 VDC

ADDITIONAL PRODUCT DETAILS

EventSensor items are catalog line items separate from the base units they will be connected to. Thus they should be listed on a separate line in your specification or purchase order.



ES-I/O Contact Panel



ES-I/O Front Panel

ES-CCU - Environmental Monitoring



DESCRIPTION	CODE
32 C.C. inputs with 6 foot cable, AC power	ES-CCU32/ACUS*
64 C.C. inputs with 6 foot cable, AC power	ES-CCU64/ACUS*
32 C.C. inputs with 6 foot cable, DC power	ES-CCU32/DC
64 C.C. inputs with 6 foot cable, DC power	ES-CCU64/DC

* For International usage you can specify /ACUK, /ACEU, or /ACAU for UK, European, or Australian power supplies respectively.

IDEAL USE

EventSensor ES-CCU32 and ES-CCU64 are modular, add-on environmental monitoring equipment that employ 32/64 discrete contact closure inputs to monitor a variety of sensors and legacy devices. The CCU reaches deep into your remote or unmanned equipment rooms to monitor devices such as UPS units, air conditioning units, MUXs and PBXs, and other equipment considered critical to your business. When combined with the communications capabilities of a Remote Site Manager, the CCU incorporates non-networked devices into your network management system.

- Dimensions: 17.5 x 7.8 x 1.75 Inches / 44.45 x 19.812 x 4.445 Centimeters
- Monitor up to 32 or 64 on-board dry contact closure inputs
- Detect doors and windows opening at remote sites
- Monitor legacy equipment and non-networked devices via your network management system
- Utilize optional -48 VDC power supply to maintain operation in a power outage

ADDITIONAL PRODUCT DETAILS

For five or more linear EventSensor connections, be sure to check power usage requirements. ES-CCU contact closures are non-isolated and dry.

These EventSensor items are catalog line items separate from the base units they will be connected to. Thus they should be listed on a separate line in your specification or purchase order.



ES-CCU back panel close-up



ES-CCU64 Back Panel



ES-CCU32 Back Panel



Asentria® | EventSensor I/O

8 CONTACT CLOSURE SENSOR - 8C

Add 8 non-isolated contact closure inputs to any Asentria base unit.

- Works with relay-based units and TTL-based outputs
- Common ground across all contacts

8 CONTACT CLOSURE (ISOLATED) SENSOR - 8CI

Add 8 isolated contact closure inputs to any Asentria base unit.

- Works with relay-based units and TTL-based outputs
- Each ground is electrically isolated for maximum electrical protection

8 ANALOG VOLTAGE - 8V

Add 8 non-isolated analog voltage inputs to any Asentria base unit.

- Voltage Range: -60/+60V
- Resolution: 0.1 VDC
- Accuracy: +/- 0.5 VDC
- Common ground for all sensors

8 LOW-CURRENT RELAY - 8R

Add 8 relay outputs to any Asentria base unit

- Max switched voltage: 60V Peak (AC or DC)
- Max switched power: 30W (DC)
- Max switched current: 0.6A

8 4-20MA SENSOR - 8M

Add 8 non-isolated 4-20mA current inputs to any Asentria base unit.

- Resolution: 0.1mA
- Accuracy: 0.1mA

8 SOLID STATE RELAY SENSOR - 8SR

Add 8 solid state relay outputs to any Asentria base unit. Solid state relays provide a higher current option than those on the ES-8R cards.

- Max switched voltage: 60V peak (AC or DC)
- Max switched power: 90W
- Max switched current: 1.5A

4 CONTACT & 4 SOLID STATE RELAY SENSOR - 4C4SR

Add 4 non-isolated dry contact closure inputs and 4 solid state relay outputs to any Asentria base unit. Solid state relays provide a higher current option than those on the 4C4R card.

- Max switched VDC: 60 peak (AC or DC)
- Max switched power: 90W
- Max switched current: 1.5A

4 CONTACT & 4 VOLTAGE SENSOR - 4C4V

Add 4 non-isolated dry contact closure inputs and 4 non-isolated voltage inputs.

- Voltage points: -60/+60 VDC
- Resolution: 0.1 VDC
- Accuracy: +/- 0.5 VDC

4 CONTACT & 4 ISOLATED VOLTAGE SENSOR - 4VI4C

Add 4 non-isolated dry contact closure inputs and 4 individually isolated voltage inputs.

- Isolated voltage points: -60/+60 VDC
- Resolution: 0.1 VDC
- Accuracy: +/- 0.5 VDC

4 CONTACT & 4 LOW-CURRENT RELAY - 4C4R

Add 4 non-isolated dry contact inputs and 4 relay outputs to any Asentria base unit.

- Max switched VDC: 60
- Max switched power: 30W
- Max switched current: 0.6A

4 CONTACT & (4) 4-20MA SENSOR - 4C4M

Add 4 non-isolated dry contact closure inputs and 4 non-isolated 4-20mA current inputs to any Asentria base unit with an expansion slot.

- Resolution: 0.1mA
- Accuracy: 0.1mA

4 CONTACT & 4 ISOLATED 4-20MA SENSOR - 4MI4C

Add 4 non-isolated dry contact closure inputs and 4 individually isolated 4-20mA current inputs to any Asentria base unit with an expansion slot.

- Resolution: 0.1mA
- Accuracy: 0.1mA

4 VOLTAGE INPUT & (4) ±15 VDC POWER OUTPUT - 4VP*

Used in conjunction with up to four DC current transducers, this Expansion Card can be used to measure DC current levels flowing from battery banks or power rectifiers. Asentria can also provide the solid core or split core DC current transducers from 50A to 500A configurations. Power Monitoring EventSensors section for available ESV-TCDC current monitors.

- Voltage Range: -60/+60V
- Resolution: 0.1 VDC

**The 4VP expansion card cannot be used in conjunction with the internal "battery back-up" option (BB) on any SiteBoss unit that support the "BB" Internal Runtime Battery*



EVENTSENSOR™ COUPLER/ADAPTERS AND CABLES

SensorJack and EventSensor sensors can be chained, split, and extended with EventSensor RJ45 connectors and RJ45 cables. Up to 16 sensors can be chained to a single SensorJack or EventSensor port on the Asentria base unit. Use EventSensor RJ45 cables to extend the reach of your EventSensor environment sensors. If your Asentria base unit has a mini-DIN style EventSensor port, you must use the ES-CAB8 cable to adapt to the RJ45-style EventSensor port. Note: EventSensor cable is standard CAT5e Ethernet cable.

DESCRIPTION	CODE
RJ45 Coupler	4162-007
RJ45 Splitter	4162-011
Extra SensorJack Probe-End Install Kit	5006-007
EventSensor RJ45 cable, 1 FT	2065-101
EventSensor RJ45 cable, 6 FT	2065-020
EventSensor RJ45 cable, 14 FT	2065-014
EventSensor RJ45 cable, 25 FT	2065-025
EventSensor RJ45 cable, 50 FT	2065-050
EventSensor RJ45 cable, 100 FT	2065-100
ES Adapter (9-pin Mini-DIN to RJ45)	ES-CAB8

Extra Power Supply Requirement Calculation

An Asentria base unit will supply 500mA of power via the RJ45 Sensor port. An Asentria 15vdc jack style power supply will supply an additional 500mA of power. No additional power supplies are required as long as the number of EventSensors daisy chained together consume less than 500mA. Current Consumption for each type of EventSensor configuration is in the table below. If the total number of sensors chained together consumes more than 500mA of power, additional 15VDC power can be applied as needed on the chain.

Formula

$$N = I_c / 500 \text{ mA}$$

N — number of power supply required

I_c — total current consumption of all Base Sensor Jack sensors that are chained together

Example: The number of extra power supply required for 4 ES-4MI4C, 1 ES-8M, and 3 ES-4C4M

- From table each ES-4MI4C consumes 256 mA, each ES-8M consumes 210 mA, each ES-4C4M consumes 111 mA
- $N = ((256 \text{ mA} \times 4) + (210 \text{ mA}) + (111 \text{ mA} \times 3)) / 500 \text{ mA} = 3.134$

As a result, three extra power supplies, in addition to the base unit, are required for 4 ES-4MI4C, 1 ES-8M, and 3 ES-4C4M.

Asentria power supply part numbers

- /ACUS 4140-002 15VDC Adapter with a American style power cable
- /ACUK 4140-004 15VDC Adapter with a UK style power cable
- /ACEU 4140-005 15VDC Adapter with a European style power cable
- /ACAU 4140-006 15VDC Adapter with a Australian style power cable
- /ACJP 4140-007 15VDC Adapter with a Japanese style power cable

Power Consumption Table

ES Part Number	Current (mA)
ES-8C	15
ES-8CI	130
ES-8V	26
ES-8R	78
ES-8M	210
ES-8SR	16
ES-4C4SR	15
ES-4C4V	21
ES-4VIVC	140
ES-4C4R	47
ES-4C4M	111
ES-4MI4C	256
ES-4VP	30