

The ACCS-420 split core current transmitter converts an AC current signal into an industry standard 4–20mA signal.

It offers a low cost alternative for measuring power and monitoring the operation of fans, pumps, and other equipment.

- › Split core allows easy installation without disconnecting cables
- › Three jumper selectable ranges, for measuring up to 200A
- › 4–20mA loop powered output



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## 1

## SPECIFICATIONS

**Sensor type** Current transformer

**AC to DC conversion technique** Averaging scaled in RMS

**Header selectable amperage range** ACCS-420: 100/150/200A,  
ACCS-420-L: 10/20/50A

**Overload** (continuous) ACCS-420: 100A= 175A, 150A= 300A, 200A= 400A  
ACCS-420-L: 10A= 80A, 20A= 120A, 50A= 200A

**Output** 4–20mA loop powered, representing 0–100% of full scale input range

**Power supply** 15–36V DC

**Accuracy** 1% of full scale

**Operating temperature** -10 to 50°C (14 to 122°F)

**Operating humidity** 10–90% (non-condensing)

**Response time** 250ms (10–90%)

**Isolation voltage** 2000V

**Frequency** 50–60Hz

**Casing** Split core hinged type, screw mounting case, ABS material

**Dimensions (H x W x D)** 66 x 100 x 32mm (2.6 x 3.9 x 1.3")

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## 2

## INSTALLATION & SETUP



### RISK OF SHOCK!

**DISCONNECT POWER SUPPLY BEFORE MAKING ELECTRICAL CONNECTIONS.**



Contact with components carrying hazardous voltage can cause electrical shock and may result in severe personal injury or death.

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## 2.1 - Installation

Run the wire that you wish to monitor through the hole in the sensor.

- › Press the tab toward the sensor to open.
  - › After placing the wire in the opening, press the hinged portion down firmly until a definite click is heard and the tab pops out fully.
  - › The sensor can be mounted using screw holes in any position, or hung directly on wires with wire ties.
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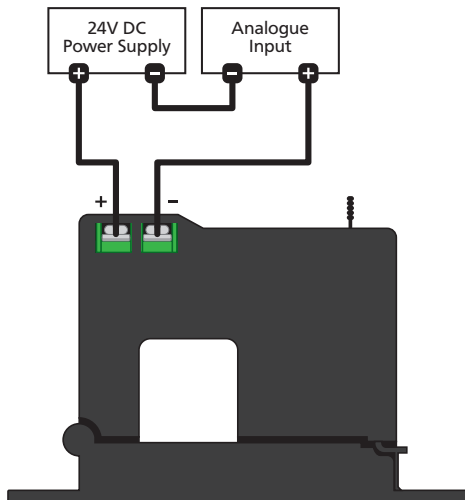
Keep split core sensors clean. Be careful not to allow grit or dirt to build up on contacts. Operation can be impaired if the mating surfaces do not have a connection. **Always check visually before closing.**

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## 2.2 - Output wiring

Connect the 4–20mA control or monitoring wires to the sensor using 14 to 22 AWG copper wire.

- › Tighten the terminals securely.
- › Be sure the output load or loop requirements are met.
- › The 4–20mA signal cable must be screened, with the screened earth at one end only.



## 2.3 - Range selection

Select the correct range by placing the jumper in the appropriate position.

- › Determine the normal operating amperage of the monitored circuit.
- › Select the range that is equal to or slightly higher than the normal operating amperage.

### Jump Range

ACCS-420:	0–100A	0–150A	0–200A
ACCS-420-L:	0–10A	0–20A	0–50A

High



Mid



## 2.4 - Usage notes

The ACCS-420 is intended to provide a 4–20mA input to monitoring equipment under normal operating conditions.

**Where failure or malfunction of the ACCS-420 could lead to personal injury or damage to control equipment or other property, additional precautions must be designed into the control system.** Incorporate and maintain other devices such as supervisory or alarm systems, or safety or limit controls intended to warn of, or protect against, failure or malfunction of the ACCS-420.

## 2.5 - Maintenance

Upon final inspection of the ACCS-420, no routine maintenance is required. A periodic check of system calibration is recommended.

The ACCS-420 is not field serviceable and should be returned if faulty. **Field repair should not be attempted and will void warranty.**

### 3

### TROUBLESHOOTING

- Sensor has no output**
- › The polarity may not be properly matched. Check and correct wiring polarity.
  - › The monitored load may be either not AC, or not on. Check that the monitored AC load is on.
  - › Check the power supply current and voltage rating.

- Output signal is too low**
- › The jumper may be set in a range that is too high for the current being monitored. Move the jumper to the correct range.
  - › The monitored current may be below the minimal current required. Loop the monitored wire several times through the opening until the sensed current rises above the minimum. *Sensed Amps = Actual Amps x Number of Loops*. Count the loops on the inside of the opening.
  - › The load current must be sinusoidal.

- Sensor is always at 4mA**
- › The monitored load may be either not AC, or not on. Check that the monitored AC load is on.

- Output signal is always at maximum (20mA)**
- › The jumper may be set in a range that is too low for the current being monitored. Move the jumper to the correct range.

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