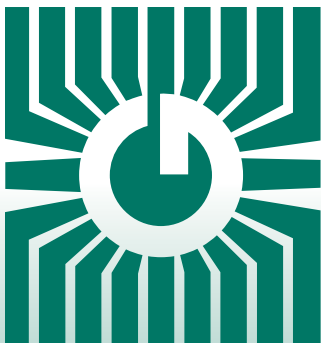


**GREYSTONE**  
ENERGY SYSTEMS INC



## SPLIT CORE CURRENT SENSOR SC-6XX Series



### Precision Power control/sensing

#### FEATURES:

- Split Core
- 0-5, 0-10 Vdc or 4-20 mA Output
- Selectable or Fixed Range Models
- Self-powered and Loop-powered Models
- Up to 200 amps Input Current
- Small Compact Size

*Peace of mind  
through reliable  
current monitoring*

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM

# AC CURRENT SENSORS

## SC-650 Series

### DESCRIPTION:

The SC-650 Series current sensors monitor line current for electrical loads such as pumps, conveyors, machine tools, or fans and output a 0-5 Vdc signal to represent the load current.

The SC-650 require no external power as they are totally powered by induction from the AC line being monitored.

The sensors are typically used to monitor motor operation and can be used to determine motor failure, belt loss, machine feed rates or tool wear.

### SPECIFICATION:

Measurement Range.....	Up to 200 Amps - See ordering information
Maximum Input Current.....	<b>SC-650-R1:</b> 100 Amps Continuous <b>SC-650-R2:</b> 150 Amps Continuous <b>SC-650-200:</b> 250 Amps Continuous
Accuracy.....	± 2% FSO (10-100% of range)
Signal Output.....	0-5 Vdc
Sensor Power.....	Self-powered
Insulation Class.....	600 Vac, insulated conductors
Frequency.....	50/60 Hz
Response Time.....	200 mS Typical, 0-90 %
Output Load.....	1 MΩ typical
Loading Error.....	add 0.5% error with 100KΩ
Operating Temperature.....	-15 to 60 °C (5 to 140 °F)
Operating Humidity.....	5 to 90% RH non-condensing
Terminal Block.....	14 to 22 AWG
Dimensions.....	76 x 79 x 24.9 mm (3.0 x 3.1 x 0.98 in)
Sensor Aperture.....	20.3 mm (0.8 in)
Enclosure Material.....	ABS/PC, UL94 V-0
Agency Approvals.....	cULus Listed

### FEATURES:

- No field adjustment necessary factory calibrated
- Input / Output isolation via current transformer
- Solid-state reliability
- Small compact size
- Solid, reliable mounting method

### PRODUCT ORDERING INFORMATION

MODEL	Output Signal
SC-650	0-5 Vdc, Self-powered

CODE	Sensing Range	Maximum Input Current
R1	0-10/20/50 Amps - Switch Selectable	100 Amps Continuous
R2	0-50/100/150 Amps - Switch Selectable	150 Amps Continuous
200	0-200 Amps	250 Amps Continuous

<b>SC-650 - R1</b>	<b>Split Core Current Sensor, 0-5 Vdc Output, 0-10/20/50 Amp Input</b>
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Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

# AC CURRENT SENSORS SC-651 Series

## DESCRIPTION:

The SC-651 Series current sensors monitor line current for electrical loads such as pumps, conveyors, machine tools, or fans and output a 0-10 Vdc signal to represent the load current.

The SC-651 require no external power as they are totally powered by induction from the AC line being monitored. SChe sensors are typically used to monitor motor operation and can be used to determine motor failure, belt loss, machine feed rates or tool wear.

## SPECIFICATION:

Measurement Range.....	Up to 200 Amps - See ordering information
Maximum Input Current.....	<b>SC-651-R1:</b> 100 Amps Continuous <b>SC-651-R2:</b> 150 Amps Continuous <b>SC-651-200:</b> 225 Amps Continuous
Accuracy.....	± 2% FSO (5-100% of range)
Signal Output.....	0-10 Vdc
Sensor Power.....	Self-powered
Insulation Class.....	600 Vac, insulated conductors
Frequency.....	50/60 Hz
Response Time.....	200 mS Typical, 0-90 %
Output Load.....	1 MΩ typical
Loading Error.....	add 0.5% error with 100KΩ
Operating Temperature.....	-15 to 60 °C (5 to 140 °F)
Operating Humidity.....	5 to 90% RH non-condensing
Terminal Block.....	14 to 22 AWG
Dimensions.....	67 x 68.6 x 24.1 mm (2.65 x 2.7 x 0.95 in)
Sensor Aperture.....	20.3 mm (0.8 in)
Enclosure Material.....	ABS/PC, UL94 V-0
Agency Approvals.....	cULus Listed

## FEATURES:

- No field adjustment necessary factory calibrated
- Input / Output isolation via current transformer
- Solid-state reliability
- Small compact size
- Solid, reliable mounting method

## PRODUCT ORDERING INFORMATION

MODEL	Output Signal
SC-651	0-10 Vdc, Self-powered

CODE	Sensing Range	Maximum Input Current
R1	0-20/40/60 Amps - Switch Selectable	100 Amps Continuous
R2	0-50/100/150 Amps - Switch Selectable	150 Amps Continuous
200	0-200 Amps	225 Amps Continuous

<b>SC-651 - R1</b>	<b>Current Sensor, 0-10 Vdc Output, 0-20/40/60 Amp Input</b>
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# AC CURRENT SENSORS

## SC-652 Series

### DESCRIPTION:

The SC-652 Series current sensors monitor line current for electrical loads such as pumps, conveyors, machine tools, or fans and output a 4-20 mA Vdc signal to represent the load current.

The SC-652 is loop-powered and requires a 15-30 Vdc supply.

The sensors are typically used to monitor motor operation and can be used to determine motor failure, belt loss, machine feed rates or tool wear.

### SPECIFICATION:

Measurement Range.....	Up to 200 Amps - See ordering information
Maximum Input Current.....	<b>SC-652-R1:</b> 100 Amps Continuous <b>SC-652-R2:</b> 150 Amps Continuous <b>SC-652-200:</b> 250 Amps Continuous
Accuracy.....	± 2% FSO (5-100% of range)
Signal Output.....	4-20 mA
Sensor Power.....	15 to 30 Vdc (Loop-powered)
Insulation Class.....	600 Vac, insulated conductors
Frequency.....	50/60 Hz
Response Time.....	250 mS Typical, 0-90 %
Output Load.....	250 Ω typical
Maximum Load.....	<600 Ω at 24 Vdc
Operating Temperature.....	-15 to 60 °C (5 to 140 °F)
Operating Humidity.....	5 to 90% RH non-condensing
Terminal Block.....	14 to 22 AWG
Dimensions.....	67 x 68.6 x 24.1 mm (2.65 x 2.7 x 0.95 in)
Sensor Aperture.....	20.3 mm (0.8 in)
Enclosure Material.....	ABS/PC, UL94 V-0
Agency Approvals.....	cULus Listed

### FEATURES:

- No field adjustment necessary factory calibrated
- Average measurement is equivalent to True RMS for pure sine waves
- Input / Output isolation via current transformer
- Solid-state reliability
- Small compact size
- Solid, reliable mounting method

### PRODUCT ORDERING INFORMATION

MODEL	Output Signal
SC-652	4-20 mA , Loop-powered

CODE	Sensing range	Maximum Input Current
R1	0-20/40/60 Amps - Switch Selectable	100 Amps Continuous
R2	0-50/100/150 Amps - Switch Selectable	150 Amps Continuous
200	0-200 Amps	250 Amps Continuous

<b>SC-652 - R1</b>	<b>Current Sensor, 4-20 mA Output, 0-20/40/60 Amp Input</b>
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# AC CURRENT SENSORS SC-675 Series

## DESCRIPTION:

The SC-675 Series current sensors monitor line current for electrical loads such as pumps, conveyors, machine tools, or fans and output an analog signal to represent the load current. The SC-675 is loop-powered and requires 15 to 30 Vdc to power the device

The SC-675 series features True RMS current measurement suitable to measure complex waveforms such as those found in VFD controlled loads. They are also suitable for accurate measurement of phase angled controlled or time proportional SCR controlled load currents. The SC-675 Series contain a precision RMS-to-DC converter circuit which will measure load current accurately for complex, distorted or noisy waveforms as opposed to "average reading" devices that will only accurately measure pure sine waveforms.

## SPECIFICATION:

Measurement Range.....See Ordering Information below  
 Maximum Input Current.....See Ordering Information below  
 Accuracy.....± 2% FSO (5-100% of range)  
 Signal Output.....4-20 mA  
 Sensor Power.....15 to 30 Vdc (Loop -powered)  
 Insulation Class.....600 Vac, insulated conductors  
 Frequency.....20-400 Hz  
 Response Time.....500 mS Typical, 0-90 %  
 Output Load.....250 Ω typical  
 Maximum Load.....>600 Ω Max. @ 24 Vdc  
 Operating Temperature.....-15 to 50 °C (5 to 122 °F)  
 Operating Humidity.....5 to 90% RH non-condensing  
 Terminal Block.....14 to 22 AWG  
 Dimensions.....66 x 67.3 x 24.9 mm  
 (2.6 x 2.65 x 0.98 in)  
 Sensor Aperture.....0.8 in (20.3 mm)  
 Enclosure Material.....ABS/PC, UL94 V-0  
 Agency Approvals.....cULus Listed

## FEATURES:

- True RMS for pure sine waves
- Input / Output isolation via current transformer
- Solid-state reliability
- Small compact size
- Solid, reliable mounting method

## PRODUCT ORDERING INFORMATION

MODEL	Output Signal
SC-675	4-20 mA, Loop-powered

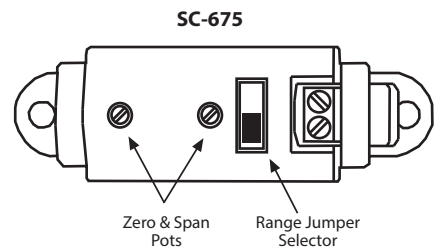
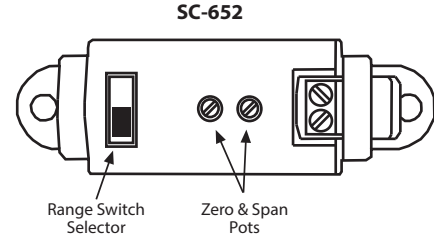
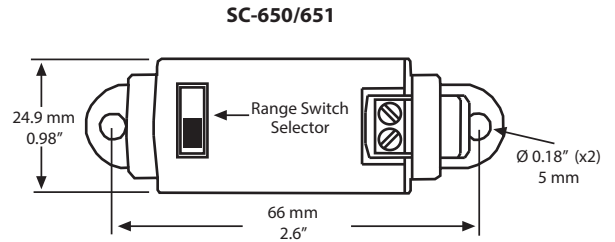
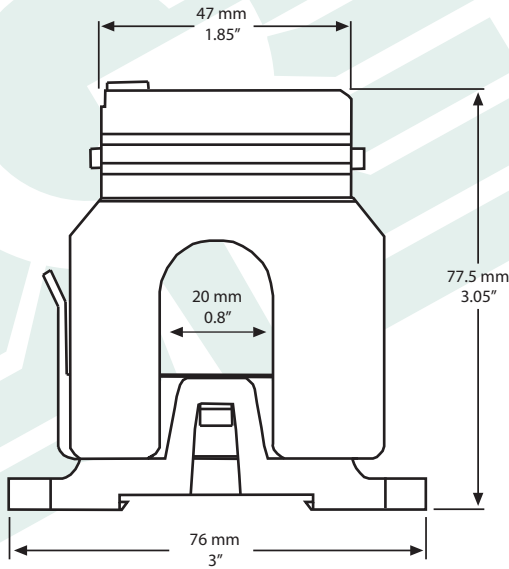
CODE	Sensing Range	Maximum Input Current
2	0-2 Amps	10 Amps Continuous
5	0-5 Amps	15 Amps Continuous
R1	0-10/20/50 Amps - Jumper Selectable	3X Range Selected Continuous
R2	0-50/100/150 Amps - Jumper Selectable	2X Range Selected Continuous
200	0-200 Amps	300 Amps Continuous

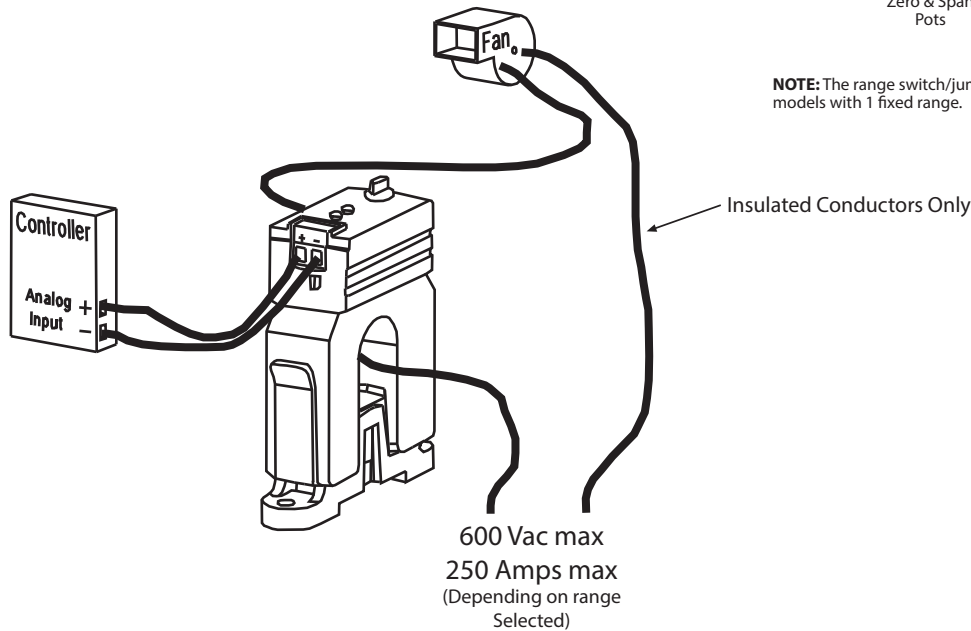
<b>SC-675 - R1</b>	<b>Current Sensor, 4-20mA Output, 0-10/20/50 Amp Input</b>
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# DIMENSIONS



**NOTE:** The range switch/jumper is not applicable for models with 1 fixed range.



## GREYSTONE

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**RoHS**  
COMPLIANT



*Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC/R sensors and transmitters for Building Automation Management Systems.*

*We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.*

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM