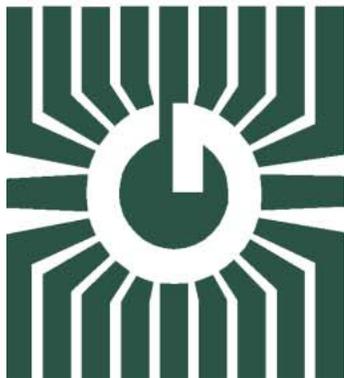
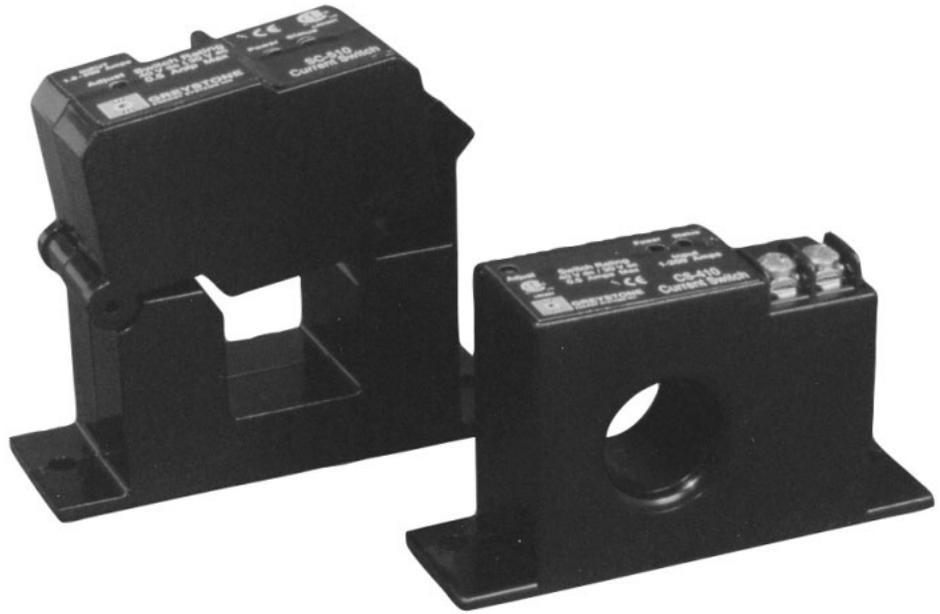


# GREYSTONE

ACCURACY BY DESIGN



## CURRENT SENSORS



**Detect current fluctuation  
remotely and reliably**

- Solid Core CS-450 & CS-475 Series Current Sensors
- Split Core SC-550 & SC-575 Series Current Sensors
- CT/PT Input transducer

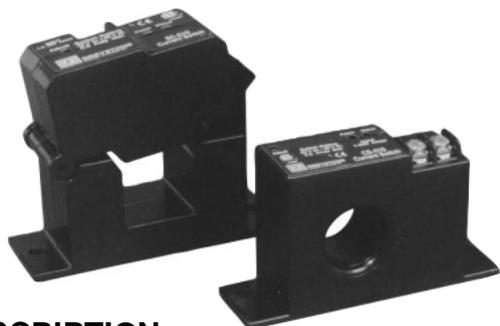
*Peace of mind  
through reliable  
current sensors*

GREYSTONE IS AN ISO 9002 REGISTERED COMPANY

# AC CURRENT SENSORS

## CS-450 / 475 and SC-550 / 575

# SOLID-STATE SENSORS FOR MONITORING AC CIRCUITS.



### FEATURES:

- Three ranges per unit reduces inventory
- No field adjustment necessary, factory calibrated
- Average measurement is equivalent to True RMS for pure sine waves for the CS-450 / SC-550 series
- True RMS measurement for sine waves or variable frequency drives for the CS-475 / SC-575 series
- Input / Output isolation via current transformer
- Solid-state reliability
- Small compact size

### DESCRIPTION:

The CS-450 / 475 and SC-550 / 575 series of AC current sensors are solid-state transducers that convert a primary circuit current to a proportional output signal. The sensors can monitor up to 200 Amps continuous and feature three jumper selectable current ranges for the highest accuracy. All sensors are factory calibrated to ensure better than

1% accuracy. The CS-450 and the SC-550 are available with 0-5, 0-10 Vdc or 4-20 mA output signal types. The CS-475 and the SC-575 feature a true RMS 4-20 mA loop-powered output signal. All models are CSA certified, UL Approved and CE compliant.

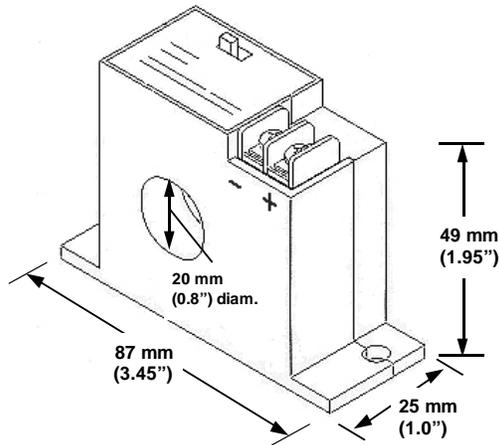
### SPECIFICATIONS:

	CS-45X / SC-55X	CS-475 / SC-575
<b>Power Supply</b>	0-5/0-10 Vdc models are self-powered, 4-20 mA model requires 15-42 Vdc at sensor	15-42 Vdc at sensor (loop powered)
<b>Input Current Ranges</b>	Three field selectable ranges (see below)	Three field selectable ranges (see below)
<b>Maximum Input Current</b>	10/20/50 Amp ranges-80/120/180 Amps continuous 50/100/200 Amp ranges-120/200/325 Amps continuous	2/5/10 Amp ranges – 35/60/90 Amps continuous 10/20/50 Amp ranges – 80/120/200 Amps continuous 50/100/200 Amp ranges – 175/300/400 Amps continuous
<b>Response Time</b>	100 mS (0-90%)	250 mS (0-90%)
<b>AC Conductor Hole</b>	Solid Core – 20mm (0.8”) diameter Split Core – 24 x 19 mm (0.95 x 0.75”)	Solid Core – 20mm (0.8”) diameter Split Core – 24 x 19 mm (0.95 x 0.75”)
<b>Output Loading Error (0-5/0-10)</b>	Calibrated with 1 M ohm load, add 1.2% error with 100k ohm load	N/A
<b>Enclosure Size (H x W x D)</b>	Solid Core – 49 x 87 x 25 mm (1.95 x 3.45 x 1.0”) Split Core – 70 x 87 x 30 mm (2.75 x 3.45 x 1.2”)	Solid Core – 49 x 87 x 25 mm (1.95 x 3.45 x 1.0”) Split Core – 70 x 87 x 30 mm (2.75 x 3.45 x 1.2”)
<b>Operating Temperature</b>	-30 to 70°C (-22 to 158°F)	0 to 70°C (32 to 158°F)
<b>Operating Humidity</b>	0 to 95% RH, non-condensing	0 to 95% RH, non-condensing
<b>Protection Circuitry</b>	Reverse voltage protected and output limited	Reverse voltage protected and output limited
<b>Wiring Connections</b>	Solid Core – Barrier strip Split Core – Screw terminals (14 to 22 AWG)	Solid Core – Barrier strip Split Core – Screw terminals (14 to 22 AWG)
<b>Enclosure Material</b>	UL 94 V-0 flammability rated ABS, Insulation class 600V	UL 94 V-0 flammability rated ABS, Insulation class 600V
<b>Manufacturing</b>	ISO 9002 Certified	ISO 9002 Certified
<b>Output Signal &amp; Accuracy</b>	0-5 Vdc, 0-10 Vdc or 4-20 mA Better than ±1% FS on all three ranges	4 to 20 mA represents 0 to 100% of current span Better than ±1% FS on all three ranges

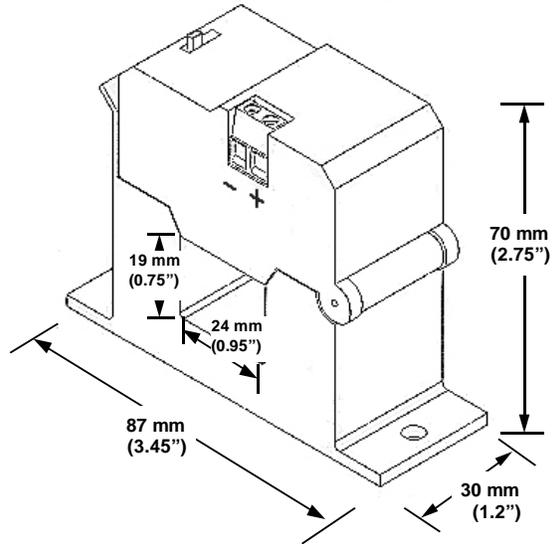
### CURRENT SENSOR: PRODUCT ORDERING INFORMATION

Solid Core (CS)					Split Core (SC)				
Model	Output	Accuracy	Frequency	Amp Ranges	Model	Output	Accuracy	Frequency	Amp Ranges
CS-450-1	0-5 Vdc	±1% FSO	40 – 100 Hz	0-10/0-20/0-50	SC-550-1	0-5 Vdc	±1% FSO	40 – 100 Hz	0-10/0-20/0-50
CS-450-2	0-5 Vdc	±1% FSO	40 – 100 Hz	0-50/0-100/0-200	SC-550-2	0-5 Vdc	±1% FSO	40 – 100 Hz	0-50/0-100/0-200
CS-451-1	0-10 Vdc	±1% FSO	40 – 100 Hz	0-10/0-20/0-50	SC-551-1	0-10 Vdc	±1% FSO	40 – 100 Hz	0-10/0-20/0-50
CS-451-2	0-10 Vdc	±1% FSO	40 – 100 Hz	0-50/0-100/0-200	SC-551-2	0-10 Vdc	±1% FSO	40 – 100 Hz	0-50/0-100/0-200
CS-452-1	4-20 mA	±1% FSO	40 – 100 Hz	0-10/0-20/0-50	SC-552-1	4-20 mA	±1% FSO	40 – 100 Hz	0-10/0-20/0-50
CS-452-2	4-20 mA	±1% FSO	40 – 100 Hz	0-50/0-100/0-200	SC-552-2	4-20 mA	±1% FSO	40 – 100 Hz	0-50/0-100/0-200
CS-475-0	4-20 mA	±1% FSO	10 – 400 Hz	0-2/0-5/0-10	SC-575-0	4-20 mA	±1% FSO	10 – 400 Hz	0-2/0-5/0-10
CS-475-1	4-20 mA	±1% FSO	10 – 400 Hz	0-10/0-20/0-50	SC-575-1	4-20 mA	±1% FSO	10 – 400 Hz	0-10/0-20/0-50
CS-475-2	4-20 mA	±1% FSO	10 – 400 Hz	0-50/0-100/0-200	SC-575-2	4-20 mA	±1% FSO	10 – 400 Hz	0-50/0-100/0-200

**Solid Core CS-450 & CS-475  
Series Current Sensor**



**Split Core SC-550 & SC-575  
Series Current Sensor**



**Options**  
**Relay Mounting Base**  
CR-112 / CR-124



**FEATURES:**

- Can be easily mounted to any CS or SC product for easier installation
- Can be used as a stand-alone relay
- Convenient Relay Status LED
- Can be factory assembled with any CS or SC product
- Push-rivets supplied for fast and reliable field assembly
- SPDT Form C relay contacts
- Environmentally-friendly cadmium-free contacts
- Ideal for switching contactors, solenoids and motors
- Small compact size

**DESCRIPTION:**

The **CR-112** and **CR-124** Command Relays are line voltage relays for use with the CS and SC current sensors and switches or as

stand-alone devices. All models are CSA certified, UL approved and CE compliant.

**SPECIFICATIONS: (NOTE: COMMAND RELAY DOES NOT ACCEPT A VARIABLE ANALOG SIGNAL)**

<b>Relay Coil</b>	CR-112 12 Vac/dc $\pm$ 20% @ 18 mA CR-124 24 Vac/dc $\pm$ 20% @ 10 mA	<b>Enclosure Size (L x W x D)</b>	102 x 44 x 25 mm (4 x 1.75 x 1") 125 mm (4.9") length with mounting tabs
<b>Relay Contacts</b>	SPDT Form C (normally open, common, normally closed) 10 Amp resistive @ 250 Vac (UL508) 8 Amp inductive @ 250 Vac 5 Amp @ 30 Vdc	<b>Mounting Holes Dimension</b>	114 mm (4.5") spacing, 4.8 mm (0.19") diameter
<b>Contact Resistance</b>	100 m $\Omega$ maximum	<b>Enclosure Material</b>	UL 94V-0 flammability rated ABS
<b>Oper. Temperature</b>	-40 to 85°C (-40 to 185°F)	<b>Operating Humidity</b>	20 to 85% RH, non-condensing
<b>Wiring Connections</b>	Screw terminal block (12 to 28 AWG)	<b>Manufacturing Process</b>	ISO 9002 Certified



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