



“Mini” Housing



“Full Size” Housing

Product overview

The AX-CSG-xxx range of Current Transducers are a range of solid state transducers that convert the primary Ac circuit current to a proportional analogue signal. The sensors come in 2 sizes. The sensors can monitor up to 200Amps continuously. The Solid core range suit new projects, whilst the Split core are ideal for retrofitting.

Features

- Monitor motors, pumps, or other electrical loads
- Two housing sizes gives up to 8 range options
- Factory calibrated to ensure $\pm 1\%$ accuracy
- 0-5Vdc, 0-10Vdc or 4-20mA output versions
- Solid or Split core versions available
- Voltage output units are self powered

Product specifications

Power Supply:	0-5Vdc & 0-10Vdc 4-20mA	Self-powered induction 15 to 30Vdc loop powered																
Accuracy:		$\pm 1\%$ FS																
Input Frequency:	650 range 675 range	50/60Hz 20-400Hz																
Input Ranges in Amps:		<table border="0"> <tr> <td>Measurement</td> <td>Maximum Inrush</td> </tr> <tr> <td>2A</td> <td>10A</td> </tr> <tr> <td>5A</td> <td>15A</td> </tr> <tr> <td>10A</td> <td>30A</td> </tr> <tr> <td>20A</td> <td>60A</td> </tr> <tr> <td>50A</td> <td>150A</td> </tr> <tr> <td>100A</td> <td>200A (651 = 150A)</td> </tr> <tr> <td>200A</td> <td>250A (651 = 225A)</td> </tr> </table>	Measurement	Maximum Inrush	2A	10A	5A	15A	10A	30A	20A	60A	50A	150A	100A	200A (651 = 150A)	200A	250A (651 = 225A)
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100A	200A (651 = 150A)																	
200A	250A (651 = 225A)																	
Output Types:	650 range 651 range 652/675 range	0-5Vdc @ 1M ohm output load 0-10Vdc @ 1M ohm output load 4-20mA @ 250 ohm load																
Material:		UL94V-O Flammability rated ABS																
Housing Sizes:	650 range 675 range	<table border="0"> <tr> <td>10/20/50A</td> <td>Mini</td> </tr> <tr> <td>100/200A</td> <td>Full</td> </tr> <tr> <td>All</td> <td>Full</td> </tr> </table>	10/20/50A	Mini	100/200A	Full	All	Full										
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Dimensions:	Solid Core	<table border="0"> <tr> <td>Mini</td> <td>52 x 48.5 x 20.3mm</td> </tr> <tr> <td>Full</td> <td>66 x 67.3 x 24.9mm</td> </tr> <tr> <td>Split Core</td> <td>70 x 87 x 30mm</td> </tr> </table>	Mini	52 x 48.5 x 20.3mm	Full	66 x 67.3 x 24.9mm	Split Core	70 x 87 x 30mm										
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Conductor Hole:	650 range	<table border="0"> <tr> <td>Mini</td> <td>11.4mm diam</td> </tr> <tr> <td>Full</td> <td>20.3mm diam</td> </tr> <tr> <td>Split Core</td> <td>19 x 24mm</td> </tr> </table>	Mini	11.4mm diam	Full	20.3mm diam	Split Core	19 x 24mm										
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Mounting Holes:	Solid Core	<table border="0"> <tr> <td>Mini</td> <td>41.7mm centres x 5mm</td> </tr> <tr> <td>Full</td> <td>DIN clips or 55.9mm centres x 5mm</td> </tr> <tr> <td>Split Core</td> <td>76mm centres x 5mm</td> </tr> </table>	Mini	41.7mm centres x 5mm	Full	DIN clips or 55.9mm centres x 5mm	Split Core	76mm centres x 5mm										
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Ambient Temp. Range:	650/651/652 675	-15 to +60°C, 5-90% RH -15 to +50°C, 5-90% RH																
Country of Origin:		Canada																

Solid Core Current Sensors

Part Number	Input Current	Frequency	Size	Output	Power
AX-CSG-650-10	0-10A	50/60Hz	Mini	0-5Vdc	Self powered
AX-CSG-650-20	0-20A	50/60Hz	Mini	0-5Vdc	Self powered
AX-CSG-650-50	0-50A	50/60Hz	Mini	0-5Vdc	Self powered
AX-CSG-650-100	0-100A	50/60Hz	Large	0-5Vdc	Self powered
AX-CSG-650-200	0-200A	50/60Hz	Large	0-5Vdc	Self powered
AX-CSG-651-10	0-10A	50/60Hz	Mini	0-10Vdc	Self powered
AX-CSG-651-20	0-20A	50/60Hz	Mini	0-10Vdc	Self powered
AX-CSG-651-50	0-50A	50/60Hz	Mini	0-10Vdc	Self powered
AX-CSG-651-100	0-100A	50/60Hz	Large	0-10Vdc	Self powered
AX-CSG-651-200	0-200A	50/60Hz	Large	0-10Vdc	Self Powered
AX-CSG-652-10	0-10A	50/60Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-652-20	0-20A	50/60Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-652-50	0-50A	50/60Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-652-100	0-100A	50/60Hz	Large	4-20mA	15 to 30Vdc
AX-CSG-652-200	0-200A	50/60Hz	Large	4-20mA	15 to 30Vdc
AX-CSG-675-2	0-2A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-675-5	0-5A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-675-10	0-10A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-675-20	0-20A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-675-50	0-50A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-CSG-675-100	0-100A	20-400Hz	Large	4-20mA	15 to 30Vdc
AX-CSG-675-200	0-200A	20-400Hz	Large	4-20mA	15 to 30Vdc

Split Core Current Sensors

Part Number	Input Current	Frequency	Size	Output	Power
AX-SCG-650-10	0-10A	50/60Hz	Mini	0-5Vdc	Self powered
AX-SCG-650-20	0-20A	50/60Hz	Mini	0-5Vdc	Self powered
AX-SCG-650-50	0-50A	50/60Hz	Mini	0-5Vdc	Self powered
AX-SCG-650-100	0-100A	50/60Hz	Large	0-5Vdc	Self powered
AX-SCG-650-200	0-200A	50/60Hz	Large	0-5Vdc	Self powered
AX-SCG-651-10	0-10A	50/60Hz	Mini	0-10Vdc	Self powered
AX-SCG-651-20	0-20A	50/60Hz	Mini	0-10Vdc	Self powered
AX-SCG-651-50	0-50A	50/60Hz	Mini	0-10Vdc	Self powered
AX-SCG-651-100	0-100A	50/60Hz	Large	0-10Vdc	Self powered
AX-SCG-651-200	0-200A	50/60Hz	Large	0-10Vdc	Self powered
AX-SCG-652-10	0-10A	50/60Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-652-20	0-20A	50/60Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-652-50	0-50A	50/60Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-652-100	0-100A	50/60Hz	Large	4-20mA	15 to 30Vdc
AX-SCG-652-200	0-200A	50/60Hz	Large	4-20mA	15 to 30Vdc
AX-SCG-675-2	0-2A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-675-5	0-5A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-675-10	0-10A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-675-20	0-20A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-675-50	0-50A	20-400Hz	Mini	4-20mA	15 to 30Vdc
AX-SCG-675-100	0-100A	20-400Hz	Large	4-20mA	15 to 30Vdc
AX-SCG-675-200	0-200A	20-400Hz	Large	4-20mA	15 to 30Vdc

Installation

SAFETY NOTE:

Prior to installation ensure that all power sources are disconnected and locked-out and remain locked out during installation and set-up, as severe injury or death can result from Electric Shock due to contact with High Voltage Conductors. Ensure all installations are in compliance with applicable electrical codes and that the installation is carried out by qualified installers familiar with the relevant standards and proper safety procedures for high voltage installations. Never rely on status indication on any device to determine if power is present in a conductor. Solid core devices require that the line to be monitored be disconnected and passed through the centre. Split core devices can be easily installed over existing wires. Ensure the contacts are clean and secured.

Mounting:

Mount the transducer in a suitable location using the two mounting holes in the base of the unit of Use the DIN rail clips for the "Full size" housing.

Connection:

Connect the output circuit to the two screw terminals using ring or fork type terminals Note polarity is indicated on the device label. The conductor may be looped more than once through the device to multiply the sensitivity but this also divides the maximum current.

The 0-5Vdc or 0-10Vdc transducers. These sensors require no external power supply as all internal electronics are totally powered by induction from the AC line being monitored. The output of these devices features a precision voltage clamp that limits the output voltage.

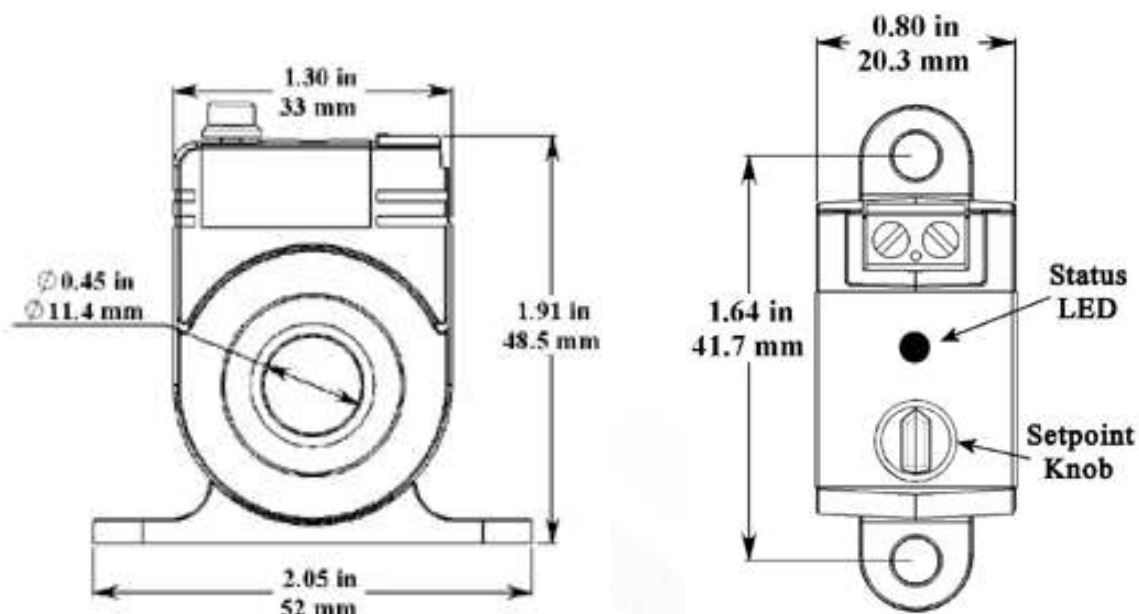
The 4-20mA transducers are loop powered devices that require an external 15-30Vdc power supply. The total power supply must be $15\text{Vdc} + (R1 @ 20\text{mA})$ e.g. if R1 is 250 ohms the minimum power supply is 20Vdc.

Calibration

All models are factory calibrated to operate within $\pm 1\%$ of FSO. If field calibration is required or a custom measurement range is desired, simply peel back the top label to expose the calibration pot. The adjustment pot sets the current span of the device and may be adjusted by about $\pm 20\%$ of FSO.

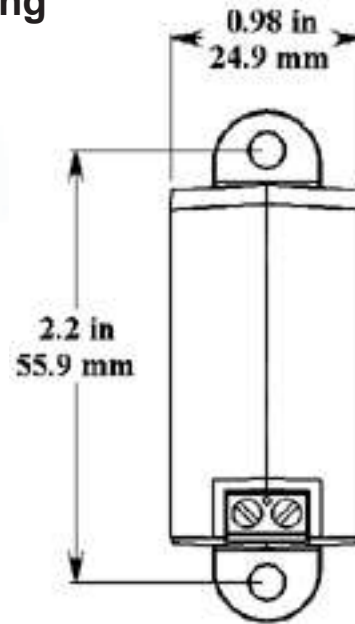
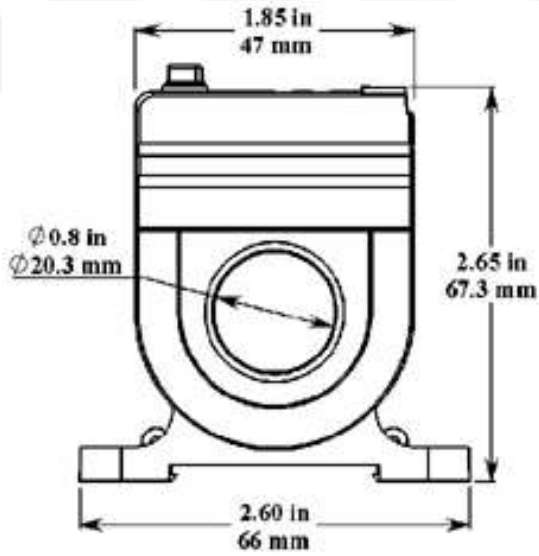
Dimensions

Mini Housing



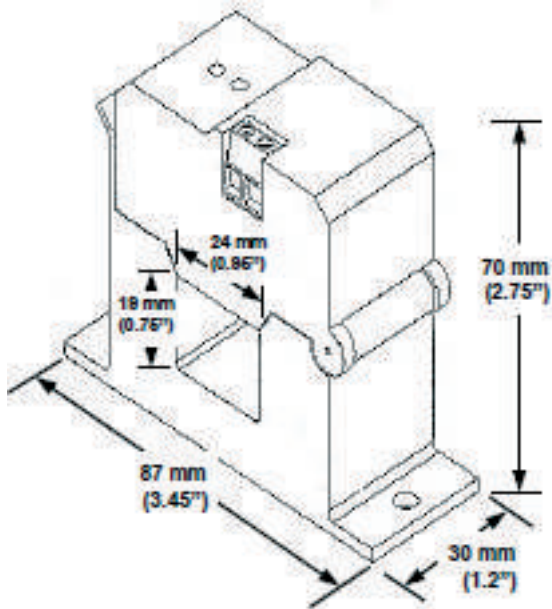
Dimensions

Full Size Housing



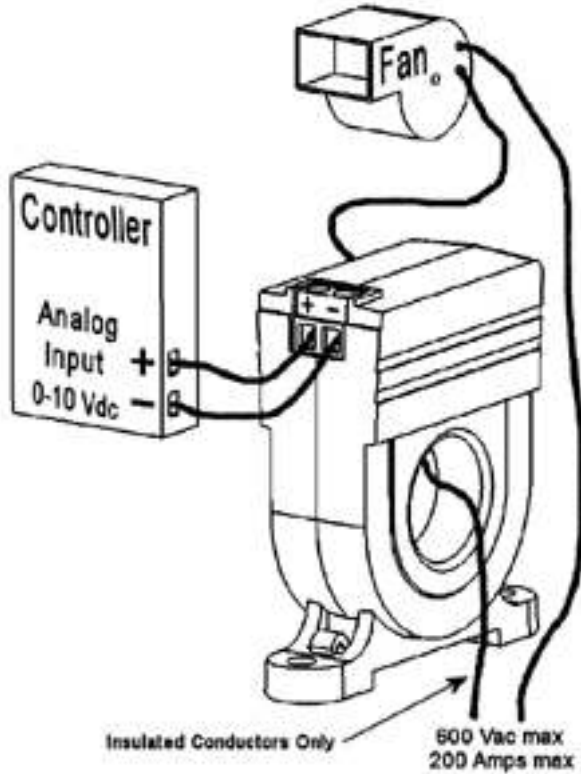
Dimensions

Split Core

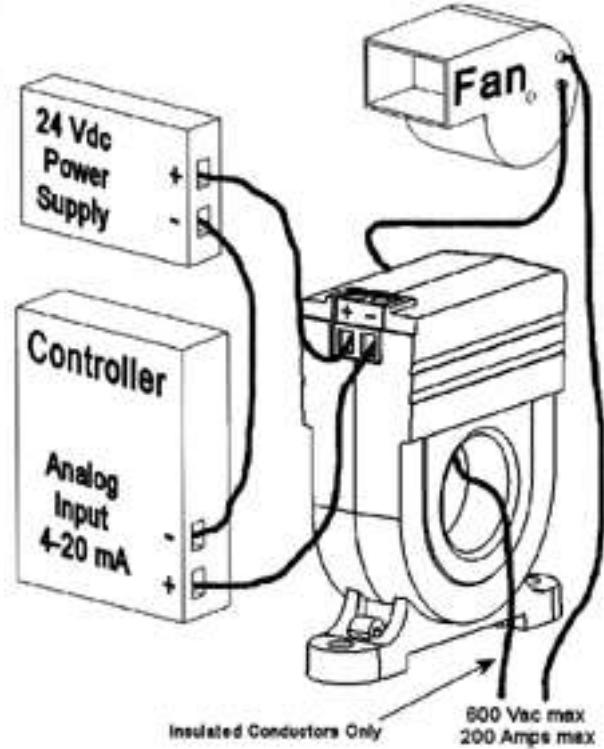


Wiring

Voltage Output



Current Output



Every effort has been taken in the production of this data sheet to ensure accuracy. Axio do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Axio has a policy of continuous improvement and reserves the right to change this specification without notice.