

### RECTANGULAR WINDOW (BUS BAR) MODELS

CURRENT RANGE	MODEL NUMBER	TYPICAL OUTPUT	SENSOR SIZE
0 to 2500A	CTL-502S/2500	75mV	G
0 to 3000A	CTL-502S/3000	90mV	G
0 to 4000A	CTL-502S/4000	120mV	G
0 to 5000A	CTL-502S/5000	150mV	G
0 to 5000A	CTL-103S/5000	50mV	H
0 to 6000A	CTL-103S/6000	60mV	H
0 to 7000A	CTL-103S/7000	70mV	H
0 to 8000A	CTL-103S/8000	80mV	H
0 to 9000A	CTL-103S/9000	90mV	H
0 to 10000A	CTL-103S/10000	100mV	H
0 to 12000A	CTL-203S/12000	60mV	H
0 to 15000A	CTL-203S/15000	75mV	H
0 to 18000A	CTL-203S/18000	90mV	H
0 to 20000A	CTL-203S/20000	100mV	H
0 to 25000A	CTL-303S/25000	85mV	HH*
0 to 30000A	CTL-303S/30000	100mV	HH*
0 to 35000A	CTL-403S/35000	90mV	HH*
0 to 40000A	CTL-403S/40000	100mV	HH*

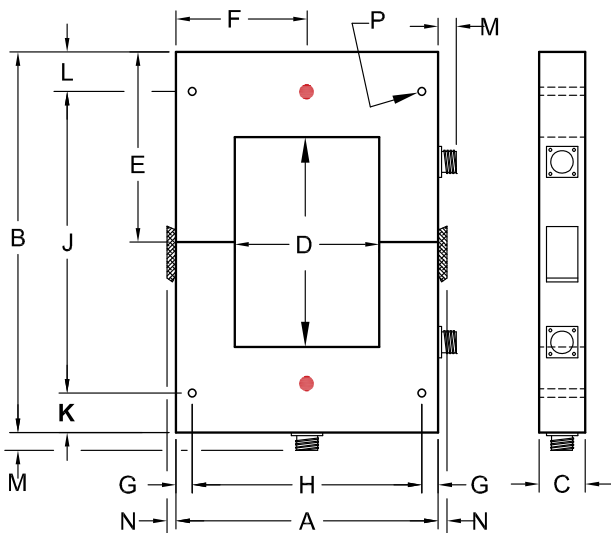
\*Sensor size HH is supplied as split-core only.  
Sensor sizes G & H are supplied as either solid- or split-core.  
Remove "S" from model number to indicate solid-core.

**5 YEAR WARRANTY**



Measuring Equipment 7N93

### CASE DIMENSIONS G, H & HH



Dwg. # 0902-00931-B Rev-B

SENS. SIZE	SENSOR DIMENSIONS (inches)														WT LBS.
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
G	7.75	12.00	1.75	3 x 6.50	6.00	3.88	0.63	6.50	10.75	0.63	0.63	0.63	0.31	0.31	12.30
H	10.00	13.75	1.75	5.50 x 8	6.50	5.00	0.63	8.75	11.50	1.50	0.75	0.63	0.31	0.31	13.00
HH*	21.00	21.00	2.00	13 x 13	10.50	10.50	1.50	18.00	18.00	1.50	1.50	0.63	0.69	0.38	44.00

Window Size  
G.... 3 x 6.50"  
H..... 5.50 x 8"  
HH ...13 x 13"



### ORDERING INFORMATION

Example: 2500 Amp, Split-Core Current Sensor with Extended Temperature Range.

### CTL-502TS/2500

(Order in combination w/ appropriate CTA Signal Conditioner)

### SPECIFICATIONS

#### INPUT

Current Range .....See Table..... dc/peak ac  
Over-current (without damage).....50 X rating  
Excitation Current .....200mA  
Resistance  
500-5000A models .....23Ω ±5Ω  
6000A + models .....12Ω ±5Ω

#### OUTPUT

Typical Output (@ 200mA excitation) .....Nominal ±30%  
Response Time (to 90% F.S.) .....50μs, typical  
Resistance  
500-5000A models .....25Ω ±15Ω  
6000A + models .....32Ω ±10Ω  
Initial Offset .....<±2mV

#### DIELECTRIC TEST

Conductor Through Window to Output ..... 2200Vac  
Suitable for installation on 600Vac or 850Vdc uninsulated bus.

#### ACCURACY & LINEARITY (When calibrated with CTA)

502 and 103 models .....±1% F.S.  
203, 303, and 403 models .....±2% F.S.

#### TEMPERATURE

Operating Range  
Standard.....-10°C to +40°C  
Extended .....Add suffix "T" .....-40°C to +65°C  
Effect.....±1% F.S.  
20,000A models & up, Extended Range .....±2% F.S.

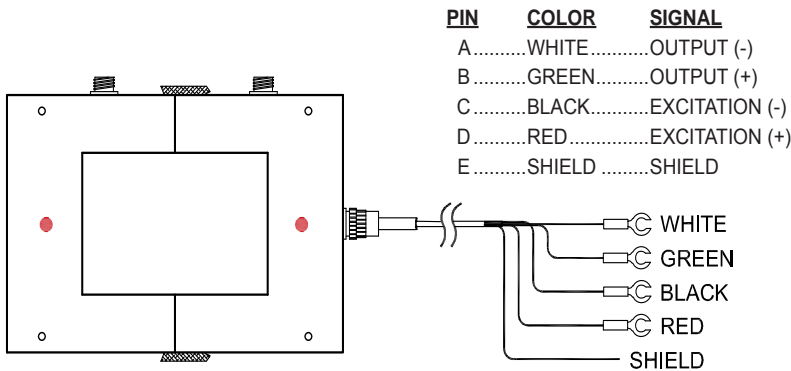
#### CABLE LENGTH

All models are supplied with detachable 8-foot cable.  
Longer cables are available - Consult factory.

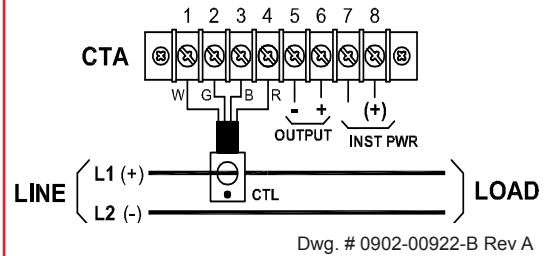
#### NOTES:

For HH case, remove red screws before unlatching head halves.  
CTL specifications are for unidirectional operation.  
For bidirectional, add suffix "Y122". (use with direct model CTA)  
CTA signal conditioners provide the excitation current (instrument power) that the CTL sensor requires, as well as amplifying the low-level (mV) signal into a more typical signal.  
See CTA spec sheet for details.

## CONNECTION DIAGRAM



Dwg. # 0902-00931-B Rev-B



“Red dot” side of CTL must face positive supply.  
 All shields must be tied to terminal 3.  
 DC Instrument Power is positive on terminal 8.

## INSTALLATION AND OPERATION

### INSTALLATION INSTRUCTIONS

1. Installation should be performed by qualified electricians only!
2. Make sure electrical service is disconnected before making any electrical connections.
3. Branch circuit protection is required to be provided in accordance with the National and Local codes of the inspection authority.
4. Route wires as required and secure to terminals per connection diagram on this sheet and on the unit.
5. Transducers are suitable for installation on 600Vac lines.
6. To prevent contact with live circuits, when installed on a bare bus bar, the transducer is required to be mounted in an enclosure that requires the use of a tool for access. When installed on an insulated cable this second enclosure is not required.

### OPERATING INSTRUCTIONS

1. This unit is intended for indoor use at altitudes up to 2000 meters.
2. Transient overvoltages according to Installation Category (overvoltage category) II, pollution Degree 2.
3. If cleaning of the exterior surface is necessary, de-energize all services of supply (both measuring and instrument power circuits) and brush with a soft brush or blow off with low-pressure air. Use appropriate eye protection. Not suitable for hose-down cleaning.
4. Maximum relative humidity 80 percent for temperatures up to 31°C decreasing linearly to 50 percent relative humidity at 40°C.
5. Maximum operating temperature range is -20°C to 60°C.



UL approved for USA and Canada



Both Direct (dc) and Alternating (ac) current

### WARRANTY STATEMENT

Ohio Semitronics Inc. warrants this unit to be free of defects in material and workmanship for a period of five years from date of shipment. This unit must not be used in any manner other than as specified in this document.