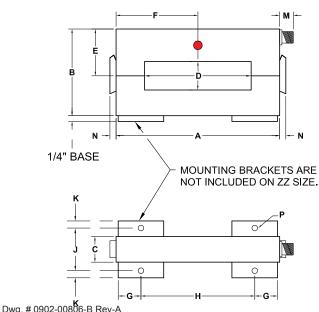
HALL-EFFECT CURRENT SENSORS

RECTANGULAR WINDOW (BUS BAR) MODELS

| CURRENT RANGE | MODEL NUMBER | TYPICAL OUTPUT | SENSOR SIZE |
|------------------|-----------------|-------------------|----------------|
| 0 to 500A | CTL-202HS/500 | 50mV | Z |
| 0 to 1000A | CTL-202HS/1000 | 100mV | Z |
| 0 to 1000A | CTL-202ZZS/1000 | 100mV | ZZ |
| 0 to 1500A | CTL-202HS/1500 | 150mV | Z |
| 0 to 1500A | CTL-202ZZS/1500 | 150mV | ZZ |
| 0 to 2000A | CTL-202HS/2000 | 200mV | Z |
| 0 to 2000A | CTL-202ZZS/2000 | 200mV | ZZ |
| 0 to 2000A | CTL-502HS/2000 | 60mV | Z |
| 0 to 2500A | CTL-302ZZS/2500 | 125mV | ZZ |
| 0 to 2500A | CTL-502HS/2500 | 75mV | Z |
| 0 to 3000A | CTL-302ZZS/3000 | 150mV | ZZ |
| 0 to 3000A | CTL-502HS/3000 | 90mV | Z |
| 0 to 4000A | CTL-502HS/4000 | 120mV | Z |
| 0 to 5000A | CTL-502HS/5000 | 150mV | Z |

All standard models are configured with a split core. Solid-core option is available - Consult factory





Window Size Z 11/4 X 41/2" ZZ 2⁷/₁₆ X 4¹/₂"



MODEL CTL

ORDERING INFORMATION

Example: 2000 Amp dc, Split-Core Current Sensor with Extended Temperature Range.

CTL-202HTS/2000

(Order in combination with appropriate CTA Signal Conditioner)

SPECIFICATIONS

INPUT

| Current RangeSee Table | dc/peak ac |
|-------------------------------|------------|
| Over-current (without damage) | |
| Resistance | |
| Excitation Current | |

OUTPUT

| Typical Output (@ 200mA excitation) | Nominal ±30% |
|-------------------------------------|----------------|
| Response Time (to 90% F.S.) | 50µs, typical |
| Resistance | |
| Initial Offset | < <u>+</u> 2mV |

DIELECTRIC TEST

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

ACCURACY & LINEARITY

| When Calibrated with CTA ±1 | % F.S. |
|-----------------------------|--------|
|-----------------------------|--------|

TEMPERATURE

| Operating Range | |
|-------------------------|---------------|
| Standard | |
| Extended Add suffix "T" | 40°C to +65°C |
| Effect | ±1% F.S. |

CABLE LENGTH

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

NOTES:

CTL specifications are for unidirectional operation.

For bidirectional, add suffix "Y122". (use wtih 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.

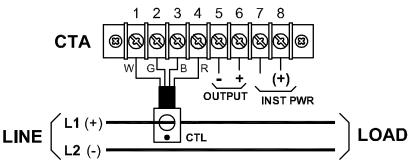
| עע | Wg. # 0902-00606-B Rev-A | | | | | | | | | | | | | | |
|----|--------------------------|------|----------------------------|------|-------------|------|------|------|------|------|------|------|------|------|------|
| | SENS. | | SENSOR DIMENSIONS (inches) | | | | | | | | | | wт | | |
| | SIZE | А | В | С | D | E | F | G | Н | J | К | М | N | Р | LBS. |
| | Z | 7.19 | 3.94 | 1.31 | 1.25 X 4.50 | 2.14 | 3.50 | 1.00 | 5.00 | 1.88 | 0.31 | 0.38 | 0.31 | 0.19 | 2.80 |
| | ZZ | 7.19 | 5.50 | 1.13 | 2.44 X 4.50 | 2.50 | 3.50 | N/A | N/A | N/A | N/A | 0.38 | 0.31 | N/A | 3.50 |

OHIO SEMITRONICS, INC. 4242 REYNOLDS DRIVE * HILLIARD, OHIO * 43026-1264 PHONE: (614) 777-1005 * FAX: (614) 777-4511 WWW.OHIOSEMITRONICS.COM * 1-800-537-6732

OSI INSTALLATION & OPERATING INSTRUCTIONS MODEL CTL

CONNECTION DIAGRAM

| <u>PIN</u> | <u>COLOR</u> | <u>SIGNAL</u> |
|------------|--------------|----------------|
| 1 | WHITE | OUTPUT (-) |
| 2 | GREEN | OUTPUT (+) |
| 4 | SHIELD | SHIELD |
| 6 | BLACK | EXCITATION (-) |
| 8 | RED | EXCITATION (+) |
| | | |



Dwg. # 0902-00922-B Rev A

"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.





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.

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CTL rect-Z, ZZ Rev-H.indd

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