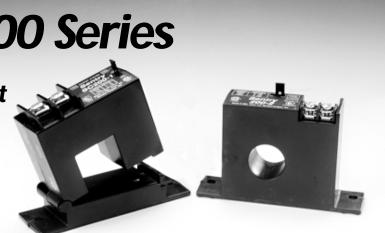
# SENTRY 100/200 Series AC Current Transducers with 0-5/10VDC or 4-20mA Output

The Sentry 100/200 Series AC Current Transducers provide a voltage or current signal proportional to monitored current up to 200A. Available in both solid core and split core configurations.





Variable

Frequency

Integration

for VFDs

# **FEATURES**

### New VFI Technology for VFDs

New Variable Frequency Integration technology uses high speed sampling to provide accurate measurements of current on the load side of VFDs.

### Reliability

Field-proven in hundreds of thousands of installations since 1982. Solid performance even in rooftop environments. Backed by five-year warranty.

### Convenience

Compact size, integral mounting flange, and two-wire hookup assure an installation that is simple, fast, and secure. You save money and avoid callbacks. The split core version simplifies retrofits.

# APPLICATIONS

- I Automation Systems: Analog current reading for remote monitoring and software alarms
- I Fan/Pump Status: Electronic proof of flow
- I Sense High Current: Accurately read the secondary current from high ratio CTs

HVAC Controller 153.2A Single Piece Design Cuts Panel Labor Analog Input Al Field Selectable Ranges Works on VFD Outputs  $\cap$ Motor

# Neilsen-Kuljian, Inc. (800) 959-4014 www.SentrySensors.com

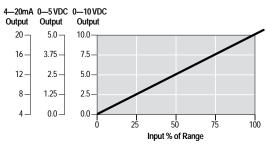
### Rev 1.0-02/00

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# SIGNAL DIAGRAM

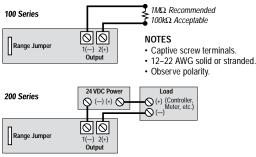


## INPUT MAXIMUMS

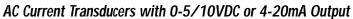
| RANGE  | MAXIMUM<br>CONTINUOUS | MAX.<br>6 SEC. | MAX.<br>1 SEC |
|--------|-----------------------|----------------|---------------|
| 0–2A   | 40A                   | 60A            | 100A          |
| 0–5A   | 100A                  | 124A           | 250A          |
| 0–10A  | 80A                   | 125A           | 250A          |
| 0–20A  | 110A                  | 150A           | 300A          |
| 0-50A  | 175A                  | 215A           | 400A          |
| 0–100A | 200A                  | 300A           | 600A          |
| 0–150A | 300A                  | 450A           | 800A          |
| 0-200A | 400A                  | 500A           | 1,000A        |

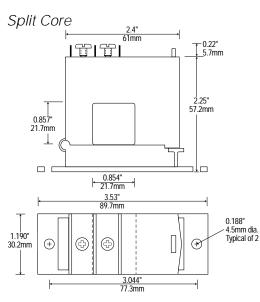
See Ordering Information for models with listed ranges.

# CONNECTIONS

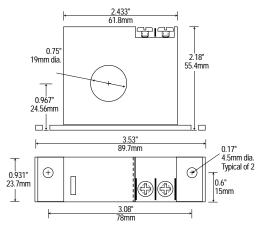


# SENTRY 100/200 SERIES





Solid Core



## SPECIFICATIONS

| Output Signal          | 0-5VDC, 0-10VDC, 4-20mA (see Ordering Info)     |  |  |
|------------------------|---|--|--|
| Accuracy               | 0–5/10VDC:<br>4–20mA:                           | 1% FS over 5–100% of range<br>0.5% FS                                  |  |
| Response Time, 0-90% . | 0–5/10VDC:<br>4–20mA:                           | 100 mS<br>300 mS   |  |
| Frequency Range        | 0–5/10VDC:<br>4–20mA w/o VFI:<br>4–20mA w/ VFI: | : 20–100Hz   |  |
| Power Supply           | 0–5/10VDC:<br>4–20mA:                           | Self-powered<br>12–40VDC, Loop-powered                                 |  |
| Output Load, 0-5/10VDC | 1 Megohm requi<br>100K Ohm Load,                |  |  |
| Output Load, 4–20mA    | 950 ohms max @<br>Rmax = (Vsupply               |  |  |
| Output Signal Limit    | 2x rated output                                 |  |  |
| Isolation Voltage      | UL listed to 1270                               | VAC, tested to 5kV   |  |
| Input Ranges           | Field Selectable (see Ordering Inf              |  |  |
| Sensing Aperture       | Solid core:<br>Split core:                      |  |  |
| Case                   | UL 94V-0 Flamm                                  | ability rated thermoplastic  |  |
| Environmental          | 4–20mA:<br>For all:                             | –58/149° (–50/65°C)<br>–4/122°F (–20/50°C)<br>0–95% RH, non-condensing |  |
| Approvals              | UL, ULC, CE <sub>c</sub> (j)                    | )us (E   |  |

Need an interposing relay? See the new PowerBASE Relay on page 13.

### ORDERING INFORMATION

### 4–20mA Output Models

| MODEL RANGE VFI CASE   200-05 0-2, 0-5A No Solid Core   200-1 0-10, 0-20, 0-50A No Solid Core   200-2 0-100, 0-150, 0-200A No Solid Core   SC200-05 0-2, 0-5A No Solid Core   SC200-1 0-10, 0-20, 0-50A No Split Core   SC200-2 0-100, 0-150, 0-200A No Split Core   SC200-2 0-100, 0-150, 0-200A No Split Core   200-05-V 0-2, 0-5A Yes Solid Core   200-05-V 0-2, 0-5A Yes Solid Core   200-1-V 0-100, 0-150, 0-200A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-2-V 0-100, 0-150, 0-200A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   SC200-1-V 0-100, 0-150, 0-200A Yes Split Core | (Specify VFI when measuring VFD loads) |                      |     |            |  |
|--|--|----------------------|-----|------------|--|
| 200-1 0-10, 0-20, 0-50A No Solid Core   200-2 0-100, 0-150, 0-200A No Solid Core   SC200-05 0-2, 0-5A No Split Core   SC200-1 0-10, 0-20, 0-50A No Split Core   SC200-2 0-10, 0-20, 0-50A No Split Core   SC200-2 0-100, 0-150, 0-200A No Split Core   200-05-V 0-2, 0-5A Yes Solid Core   200-1-V 0-10, 0-20, 0-50A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   | MODEL                                  | RANGE                | VFI | CASE       |  |
| 200-2 0-100, 0-150, 0-200A No Solid Core   SC200-05 0-2, 0-5A No Split Core   SC200-1 0-10, 0-20, 0-50A No Split Core   SC200-2 0-100, 0-150, 0-200A No Split Core   200-05-V 0-2, 0-5A No Split Core   200-1-V 0-10, 0-20, 0-50A No Split Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   | 200-05                                 | 0–2, 0–5A            | No  | Solid Core |  |
| SC200-05 0-2, 0-5A No Split Core   SC200-1 0-10, 0-20, 0-50A No Split Core   SC200-2 0-100, 0-150, 0-200A No Split Core   200-05-V 0-2, 0-5A Yes Solid Core   200-1-V 0-10, 0-20, 0-50A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core  | 200-1                                  | 0–10, 0–20, 0–50A    | No  | Solid Core |  |
| SC200-1 0-10, 0-20, 0-50A No Split Core   SC200-2 0-100, 0-150, 0-200A No Split Core   200-05-V 0-2, 0-5A Yes Solid Core   200-1-V 0-10, 0-20, 0-50A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   | 200-2                                  | 0–100, 0–150, 0–200A | No  | Solid Core |  |
| SC200-2 0-100, 0-150, 0-200A No Split Core   200-05-V 0-2, 0-5A Yes Solid Core   200-1-V 0-10, 0-20, 0-50A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   | SC200-05                               | 0–2, 0–5A            | No  | Split Core |  |
| 200-05-V 0-2, 0-5A Yes Solid Core   200-1-V 0-10, 0-20, 0-50A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core  | SC200-1                                | 0–10, 0–20, 0–50A    | No  | Split Core |  |
| 200-1-V 0-10, 0-20, 0-50A Yes Solid Core   200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core  | SC200-2                                | 0–100, 0–150, 0–200A | No  | Split Core |  |
| 200-2-V 0-100, 0-150, 0-200A Yes Solid Core   SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   | 200-05-V                               | 0–2, 0–5A            | Yes | Solid Core |  |
| SC200-05-V 0-2, 0-5A Yes Split Core   SC200-1-V 0-10, 0-20, 0-50A Yes Split Core   | 200-1-V                                | 0–10, 0–20, 0–50A    | Yes | Solid Core |  |
| SC200-1-V 0–10, 0–20, 0–50A Yes Split Core   | 200-2-V                                | 0–100, 0–150, 0–200A | Yes | Solid Core |  |
|  | SC200-05-V                             | 0–2, 0–5A            | Yes | Split Core |  |
| SC200-2-V 0–100, 0–150, 0–200A Yes Split Core  | SC200-1-V                              | 0–10, 0–20, 0–50A    | Yes | Split Core |  |
|  | SC200-2-V                              | 0–100, 0–150, 0–200A | Yes | Split Core |  |

### **VDC Output Models**

| MODEL    | RANGE                | OUTPUT  | CASE       |  |  |
|----------|----------------------|---------|------------|--|--|
| 100-1L   | 0–10, 0–20, 0–50A    | 0-5VDC  | Solid Core |  |  |
| 100-2L   | 0–100, 0–150, 0–200A | 0-5VDC  | Solid Core |  |  |
| 100-3L   | 0–10, 0–20, 0–50A    | 0-10VDC | Solid Core |  |  |
| 100-4L   | 0–100, 0–150, 0–200A | 0-10VDC | Solid Core |  |  |
| SC100-1L | 0–10, 0–20, 0–50A    | 0-5VDC  | Split Core |  |  |
| SC100-2L | 0–100, 0–150, 0–200A | 0-5VDC  | Split Core |  |  |
| SC100-3L | 0–10, 0–20, 0–50A    | 0-10VDC | Split Core |  |  |
| SC100-4L | 0–100, 0–150, 0–200A | 0-10VDC | Split Core |  |  |
|          |                      |         |            |  |  |

Contact Neilsen-Kuljian for availability of the earlier 100 Series products which have a 10% signal offset.

