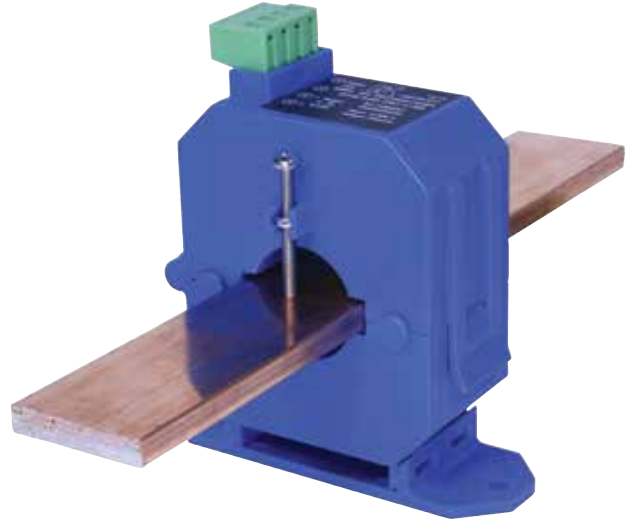


# DT-BB SERIES

## DC Current Transducers

The newest DC current Transducers provide several features not previously available. This innovative design allows a split-core transducer to be installed over existing bus bars or wire, it can be mounted on a panel or DIN rail and is rated to measure DC current working voltage to 1500 VDC. The power supply and output signal wires are connected to the sensor with a terminal block which plugs into the header on the top of the sensor. Four ranges are available from 0–100 to 0–400 amps; three output types: unipolar, bipolar and bidirectional; and three industry standard outputs: 4–20 mA, 0–5 and 0–10 VDC. The Innovative design puts the current sensing components in one housing with the signal conditioning, reducing installation time and improving both accuracy and safety.



### Current Transducer Applications

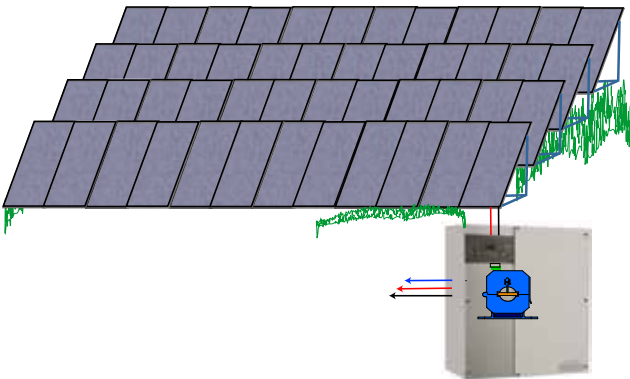
#### Grid Connected PV Solar Generation

- Measure the power produced by a number of panels connected together, at voltages to 1500 VDC.

#### DC Motor Monitoring

- Spot overcurrent conditions before the machine fails.
- Sense clogged filters or blocked intake to DC driven pumps.

Solar Panel Grid



Power supply and output wires connect to the sensor with pluggable terminals, making installation even easier. Panel mounting bracket snaps on if needed.

### Current Transducer Features

#### Standard Signal Outputs

- 4–20 mA unipolar or 4–12–20 mA bipolar output.
- 0–5/10 VDC unipolar or 0–2.5–5 VDC or 0–5–10 VDC bipolar output.
- +/-5 or +/-10 VDC bidirectional output also available.
- Compatible with most automation and control systems.

#### Externally Powered

- Low voltage 24 VAC/DC is safe and readily available.

#### Split-core Case

- Sensing window provides ample space for bus bar, single or multiple conductors.

#### DIN Rail or Panel Mount

- Attach to a bus assembly, snap onto DIN rail\* (using available adapters) or attach with screws to a panel for secure mounting.

#### Designed for UL, cUL and CE Approval

- Accepted worldwide.

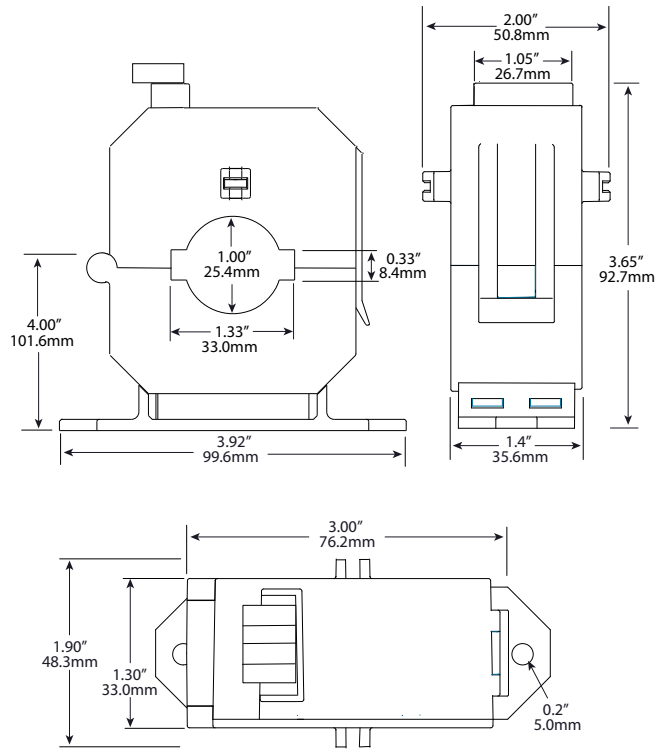
\*For information on the DIN rail accessories kit, see page 144.

OEMs

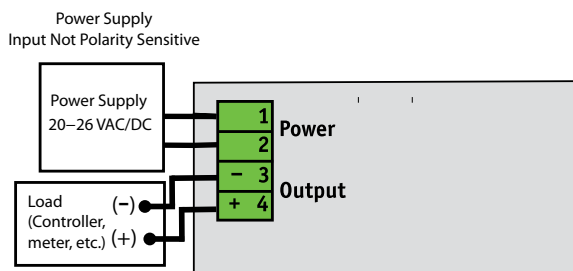
Test & Evaluation Units for OEMs

Free program expedites evaluation process. See page 3 for details.

Current Transducer Dimensions



Current Transducer Connections



Current Transducer Specifications

|                               |   |   |         |   |         |   |         |   |         |
|-------------------------------|---|---|---------|---|---------|---|---------|---|---------|
| <b>Power Supply</b>           | 24 VAC/DC (20–26 V)<br>Power and signal are not isolated.   |   |         |   |         |   |         |   |         |
| <b>Consumption</b>            | <2 VA   |   |         |   |         |   |         |   |         |
| <b>Output</b>                 | 0–5 VDC, 0–10 VDC or 4–20 mA<br>Bidirectional models: +/-5 or +/-10 VDC   |   |         |   |         |   |         |   |         |
| <b>Output Limits accuracy</b> | 4–20 mA : 23 mA<br>0–5 VDC : 5.75 VDC<br>0–10 VDC : 11.5 VDC  |   |         |   |         |   |         |   |         |
| <b>Response Time</b>          | 40 ms (90% step change)   |   |         |   |         |   |         |   |         |
| <b>Input Ranges</b>           | <table border="1"> <tr><td>1</td><td>0–100 A</td></tr> <tr><td>2</td><td>0–200 A</td></tr> <tr><td>3</td><td>0–300 A</td></tr> <tr><td>4</td><td>0–400 A</td></tr> </table> | 1 | 0–100 A | 2 | 0–200 A | 3 | 0–300 A | 4 | 0–400 A |
| 1                             | 0–100 A   |   |         |   |         |   |         |   |         |
| 2                             | 0–200 A   |   |         |   |         |   |         |   |         |
| 3                             | 0–300 A   |   |         |   |         |   |         |   |         |
| 4                             | 0–400 A   |   |         |   |         |   |         |   |         |
| <b>Isolation</b>              | Working voltage to 1500 VDC   |   |         |   |         |   |         |   |         |
| <b>Frequency Range</b>        | DC  |   |         |   |         |   |         |   |         |
| <b>Case</b>                   | UL94 V0 Flammability Rated  |   |         |   |         |   |         |   |         |
| <b>Environmental</b>          | -4 to 122°F (-20 to 50°C)<br>0–95% RH, non-condensing   |   |         |   |         |   |         |   |         |
| <b>Listings</b>               | Designed for UL/cUL and CE approval   |   |         |   |         |   |         |   |         |

DC Current Transducers

Ordering Information

Sample Model Number: DT4-010-24U-BD-BB  
DT Current transducer, 0–400 amp range, 24 volt powered, bidirectional output signal, split-core, bus bar mounting.

|    |     |           |         |           |       |
|----|-----|-----------|---------|-----------|-------|
|    | (1) | (2)       | (3)     | (4)       | (5)   |
| DT | [ ] | - [ ] [ ] | - 2 4 U | - [ ] [ ] | - B B |

(1) Range

|   |         |
|---|---------|
| 1 | 0–100 A |
| 2 | 0–200 A |
| 3 | 0–300 A |
| 4 | 0–400 A |

(2) Output

|     |          |
|-----|----------|
| 005 | 0–5 VDC  |
| 010 | 0–10 VDC |
| 420 | 4–20 mA  |

(3) Power Supply

|     |           |
|-----|-----------|
| 24U | 24 VAC/DC |
|-----|-----------|

(4) Output Type

|    |               |
|----|---------------|
| U  | Unipolar      |
| BP | Bipolar       |
| BD | Bidirectional |

(5) Case Style

|    |                                     |
|----|-------------------------------------|
| BB | Split-core, buss bar or panel mount |
|----|-------------------------------------|

