

# VTD-BD SERIES

## DC Voltage Transducers

VTD-BD Series Voltage Transducers are high-performance transducers for sensing voltage in DC powered installations. Applicable for use on circuits to 600 VDC, VTD-BD voltage transducers provide a fully isolated  $\pm 5$  VDC or  $\pm 10$  VDC output signal in response to DC voltages that change polarity. Housed in an easy-to-install DIN rail or panel mount case, the VTD-BD Series comes in a variety of ranges to suit many primary voltages.

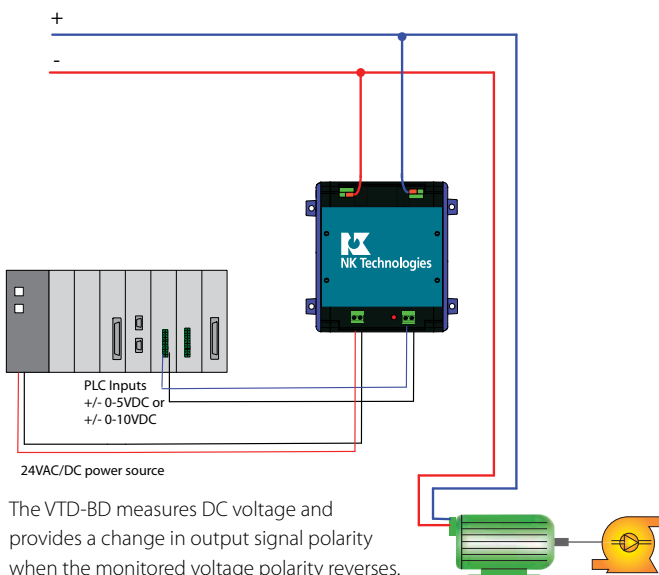


### Voltage Transducer Applications

#### Voltage Monitoring

- Detect below normal or “brown out” voltage conditions; protect against possible motor overheating.
- Identify conductor loss conditions by detecting voltage reduction in one motor lead.
- Monitor over voltage conditions associated with regenerative voltage to help in diagnosing/avoiding motor drive issues.
- Detect voltage conditions that may cause stress in or damage to soft starter components (SCRs).

DC Voltage Transducer



The VTD-BD measures DC voltage and provides a change in output signal polarity when the monitored voltage polarity reverses. Positive on upper right terminal creates a positive output signal; positive on upper left terminal creates a negative output signal.

### Voltage Transducer Features

#### Wide Input Range Selection

- Six ranges of input voltages to best fit your requirements, from  $\pm 0-15$  VDC to  $\pm 0-600$  VDC.

#### $\pm 5$ VDC or $\pm 10$ VDC Sensor Powered Outputs

- Industry standard outputs makes use with existing controllers, data loggers and SCADA equipment easy and reliable.

#### Input/Output Isolation

- Input and output circuitry electrically isolated for improved safety of use.

#### DIN Rail\* or Panel Mount Case

- Enclosure mounts quickly for an attractive installation.

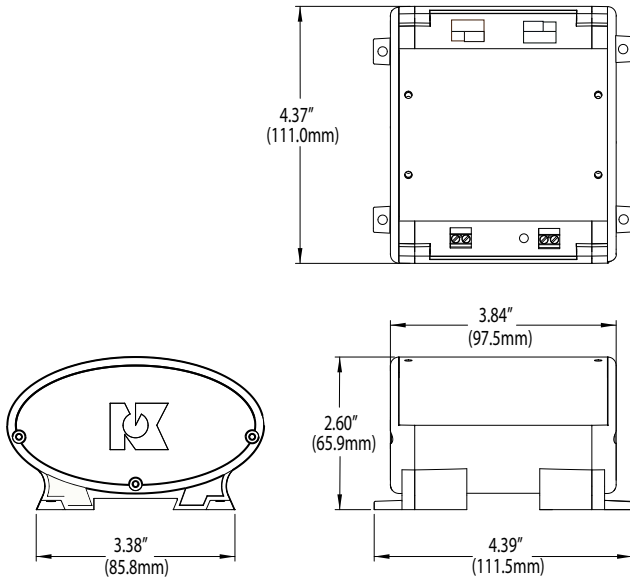
OEMs

Test & Evaluation Units for OEMs

Free program expedites evaluation process. See page 1 for details.



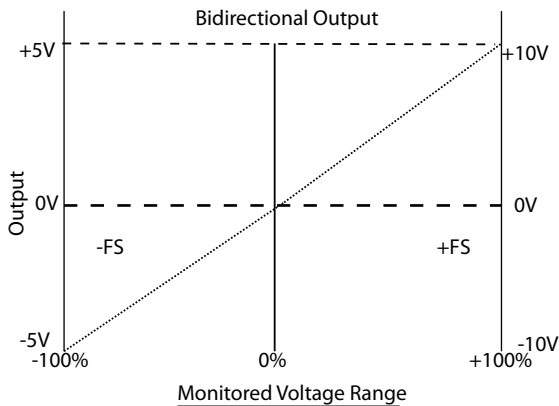
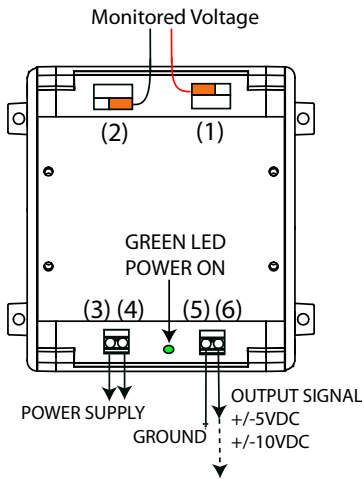
Voltage Transducer Dimensions



Voltage Transducer Specifications

<b>Power Supply</b>	24 VAC/DC (22–26V)
<b>Input Range (+/-)</b>	15 V, 25 V, 50 V, 150 V, 300 V, 600 VDC
<b>Input Impedance</b>	>160K $\Omega$
<b>Output</b>	• +/-5 VDC • +/-10 VDC
<b>Output Impedance</b>	>10K $\Omega$
<b>Response Time</b>	500 ms (10–90% step change)
<b>Accuracy</b>	1.0% of FS
<b>Isolation Voltage</b>	2500 V
<b>Frequency Range</b>	DC
<b>Mounting</b>	DIN rail or panel mounting
<b>Case</b>	UL94 V-0 Flammability Rated
<b>Environmental</b>	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
<b>Listings</b>	Designed to meet UL, cUL and CE

Voltage Transducer Connections



Voltage Transducer Ordering Information

Sample Model Number: VTD0-010-24U-BD-OS  
DC voltage transducer with 15 V range, +/-10 VDC proportional output; 24 V externally powered, bidirectional output with a DIN rail compatible case.

VTD (1) - (2) - (3) - (4) - (5)  
VTD 005 - 010 - 24U - BD - OS

(1) Nominal Range

0	+/-15 V
1	+/-25 V
2	+/-50 V
3	+/-150 V
4	+/-300 V
5	+/-600 V

(2) Output Signal

005	+/-5 VDC
010	+/-10 VDC

(3) Supply Voltage

24U	24 VAC/DC external power supply
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(4) Output Type

BD	Bidirectional output
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(5) Mounting

OS	DIN rail or panel mounting
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