

VTD SERIES

DC Voltage Transducers

VTD Series Voltage Transducers are high-performance transducers for sensing voltage in DC powered installations. Applicable for use on circuits to 600 VDC, VTD voltage transducers provide a fully isolated, 4–20 mA output proportional to rated nominal voltage in DC circuits. Housed in a slim, compact, easy-to-install DIN rail mount enclosure, the VTD Series comes in a variety of nominal voltages.

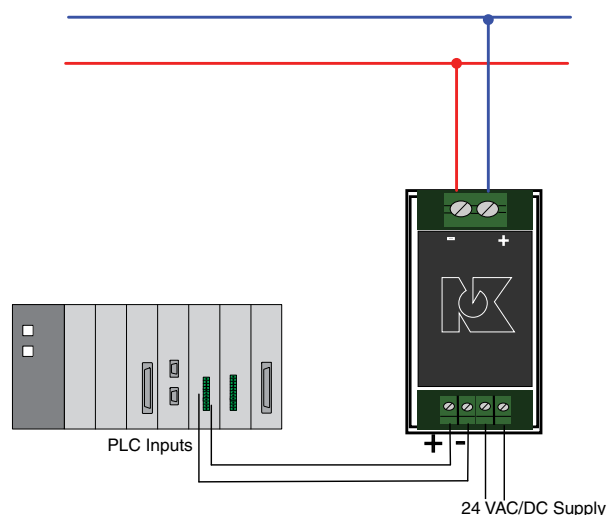


Voltage Transducer Applications

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 or damage to soft starter components (SCRs).

DC Voltage Transducer Control



Voltage Transducer Features

Accurate Output

- Several ranges available for your application, from 0–15 VDC to 0–600 VDC.

Standard 4–20 mA Sensor Powered Output

- Industry standard output 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.

Compact DIN rail Mount Enclosure*

- Space saving 35 mm wide enclosure mounts quickly for an attractive installation.

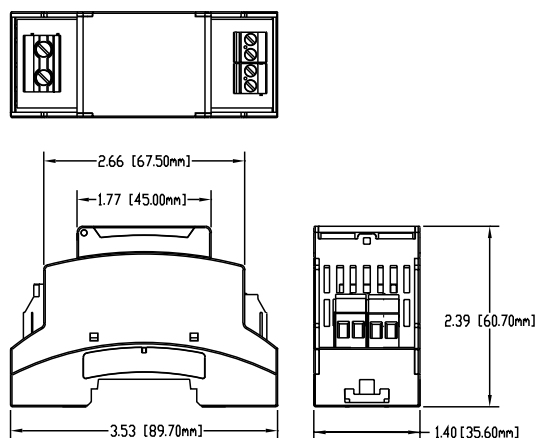
*For information on the DIN Rail accessories kit, see page 109.

For additional Application Examples, see page 110 and www.nktechnologies.com

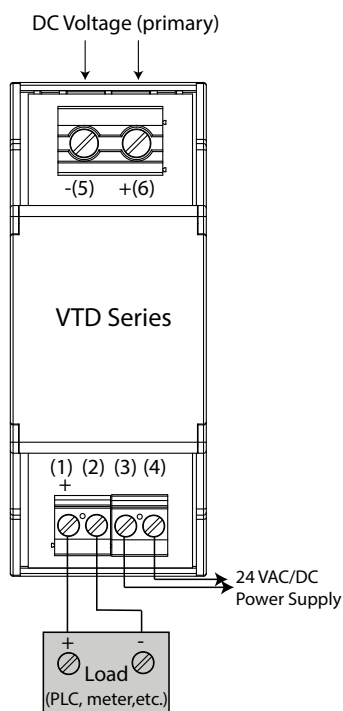


Free program expedites evaluation process. See page 1 for details.

Voltage Transducer Dimensions



Voltage Transducer Connections



Voltage Transducer Specifications



Power Supply	24 VAC/DC (20–45DC, 22–38 VAC)
Input	15 V, 25 V, 50 V, 150 V, 300 V, 600 VDC
Output	4–20 mA proportional; capped at 24 mA max.
Response Time	250 ms (to 90% value)
Accuracy	<1%
Linearity	<0.5%
Loading	<500 Ω
Isolation Voltage	UL listed to 2500 VAC, tested to 5 KV
Frequency Range	DC
Mounting	DIN rail compatible
Case	UL94 V0 Flammability Rated; noncorrosive thermoplastic
EMC/Immunity	EN50081-1, EN50082-2
Ripple	<1% (peak to peak)
Environmental	-22 to 122°F (-30 to 50°C) 0–95% RH, non-condensing
Listings	UL 508 Industrial Control Equipment (USA & Canada), CE

Voltage Transducer Ordering Information

Sample Model Number: VTD1-420-24U-DIN
DC voltage transducer with 25 V range, standard 4–20 mA proportional output; 24 V externally powered with a DIN-compatible enclosure.

VTD (1) - (2) (3) (4)
VTD 4 2 0 - 2 4 U - D I N

(1) Nominal Range

0	0–15 VDC
1	0–25 VDC
2	0–50 VDC
3	0–150 VDC
4	0–300 VDC
5	0–600 VDC

(2) Output Type

420	4–20 mA
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(3) Supply Voltage

24U	24 V external power supply
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(4) Mounting

DIN	DIN rail compatible
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