

NK Technologies • 3511 Charter Park Drive • San Jose, CA 95136 800.959.4014 • www.nktechnologies.com • sales@nktechnologies.com



**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, 4-20mA 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.

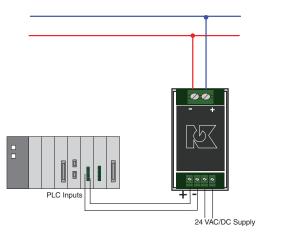
# VTD SERIES DC Voltage Transducers

### **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**



### **Features**

#### Accurate Output

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

#### Standard 4-20mA 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.

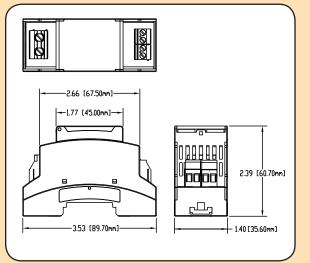
#### **Compact DIN-rail Mount Enclosure**

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

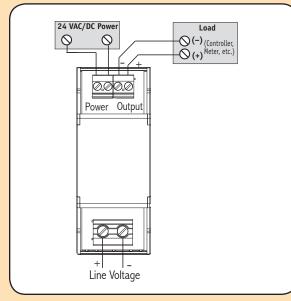


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### **Dimensions**



### **Connections**



### **Specifications**

| Power Supply      | 24 VAC/DC (20-45DC, 22-38VAC)                          |
|-------------------|--|
| Input             | 15V, 50V, 300V, 600VDC                                 |
| Output            | 4–20mA proportional; capped at 24mA max.               |
| Response Time     | 250 ms (to 90% value)                                  |
| Accuracy          | <1%  |
| Linearity         | <0.5%  |
| Loading           | <500 ohms  |
| Isolation Voltage | 2500VAC  |
| Frequency Range   | DC   |
| Operating Temp.   | -30°C to 60°C  |
| Mounting          | DIN-rail compatible                                    |
| Case              | UL94 VO Flammability Rated; noncorrosive thermoplastic |
| EMC/Immunity      | EN50081-1, EN50082-2                                   |
| Ripple            | <1% (peak to peak)                                     |
| Environmental     | -4 to 122°F (-20 to 50°C),                             |
|                   | 0–95% RH non-condensing                                |

## **Ordering Information**

Sample Model Number: VTD1-420-24L-DIN DC voltage transducer with 15V range, standard 4–20mA proportional output; 24V externally powered with a DIN-compatible enclosure.

