



NK Technologies



MADE IN USA

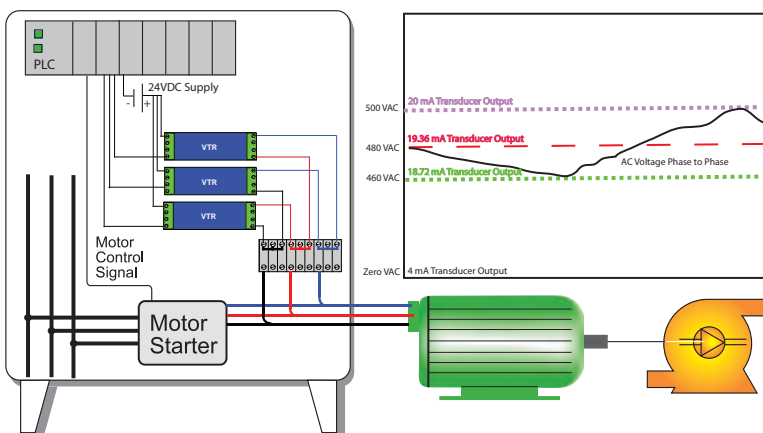
VTR SERIES Voltage Transducers

Applications

True RMS Voltage Monitoring

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

Phase Loss Protection



VTR Series is a high-performance True RMS transducer for sensing voltage in single- and three-phase installations. Applicable on nominal circuits of 120V, 240V and 480V, VTR Series voltage transducers provide a fully isolated, 4-20mA output proportional to rated nominal voltage in both sinusoidal and non-sinusoidal (variable frequency) situations. Housed in a slim, compact, easy-to-install DIN-rail mount enclosure, the VTR Series comes in a variety of nominal voltages and with four-wire terminal block connection.

Features

True RMS Output

- Allows for use in situations where power supplied is non-sinusoidal such as VFD applications, poor power quality installations or other electrically harsh/challenging environments.

Standard 4-20mA Loop 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*

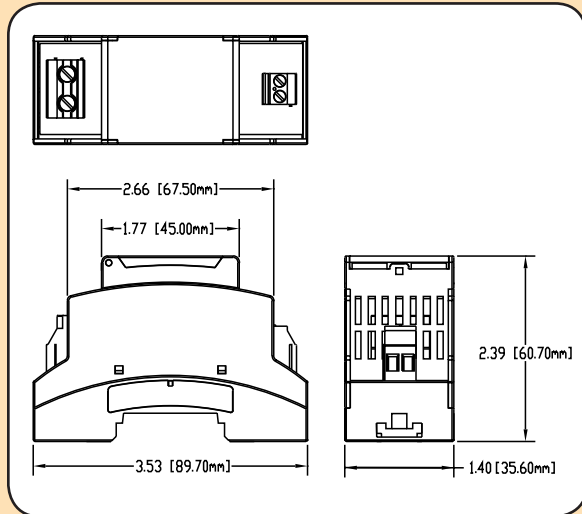
- Space saving 35mm wide enclosure mounts quickly for an attractive installation.

*See DIN Rail accessories datasheet for information on the kit.

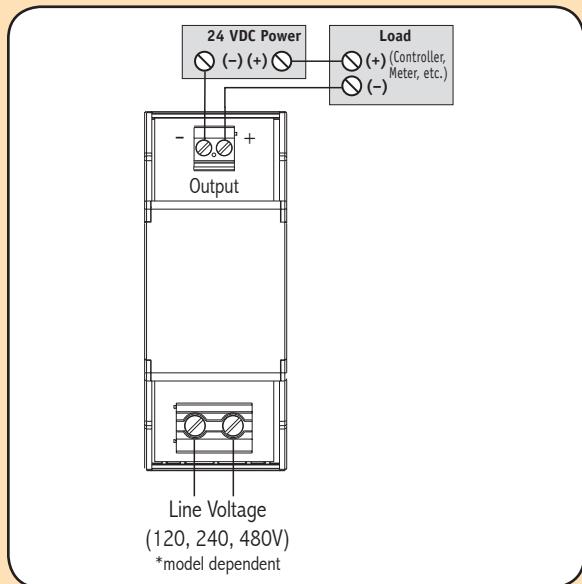


NK Technologies

Dimensions



Connections



Specifications

Power Supply	24VDC Loop-powered
Input	120V, 150V, 240V, 480V, 500V
Input Over-range	+15% of nominal range
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	40Hz–5KHZ
Operating Temp.	-30°C to 60°C
Mounting	DIN-rail compatible
Case	UL94 V0 Flammability Rated; noncorrosive thermoplastic
Environmental	14 to 122°F (-10 to 50°C), 0–95% RH non-condensing
EMC/Immunity	EN50081-1, EN50082-2
Ripple	<1% (peak to peak)
Listings	UL/CUL and CE Pending

Ordering Information

Sample Model Number: VTR1-420-24L-DIN

True RMS voltage transducer with 120V nominal range, standard 4–20mA proportional output; 24V loop-powered with a DIN-compatible enclosure.

VTR ⁽¹⁾ - ⁽²⁾ ⁽³⁾ - ⁽⁴⁾

 -
 4
2
0 -
 2
4
L -
 D
I
N

(1) Nominal Range

1	120V
2	150V
3	240V
4	480V
5	500V

(2) Output Type

420	4–20 mA
-----	---------

(3) Supply Voltage

24L	24V Loop powered
-----	------------------

(4) Mounting

DIN	DIN-rail compatible
-----	---------------------