VTU-DIN SERIES
AC or DC Voltage Transducers

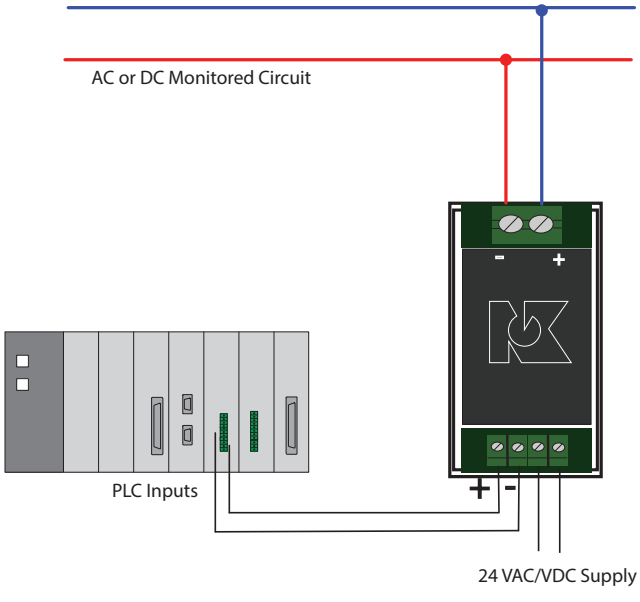
VTU-DIN Series Voltage Transducers are high-performance True RMS transducers for sensing voltage in single, three-phase or DC installations. Housed in a slim, compact, easy-to-install DIN rail mounted case, these transducers come in a variety of voltage ranges. The VTU-DIN measures AC or DC voltage from 0–15 to 0–600 V and provides an industry standard output proportional to connected voltage in alternating current circuits with sinusoidal or non-sinusoidal (variable frequency) applications or direct current circuits.

Voltage Transducers Applications

True RMS or DC Voltage Monitoring

- Detect below normal or "brownout" 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 that may cause stress or damage to soft starter components (SCRs).

Phase Loss Detection



Voltage Transducers Features

Zero to 5 KHz Measurement

- 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 Outputs

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

Compact DIN Rail Mount Case*

- Space saving slim enclosure mounts quickly for an attractive installation.

UL/cUL and CE Approved

- Accepted worldwide.

*For information on the DIN rail accessories kit, see page 147.

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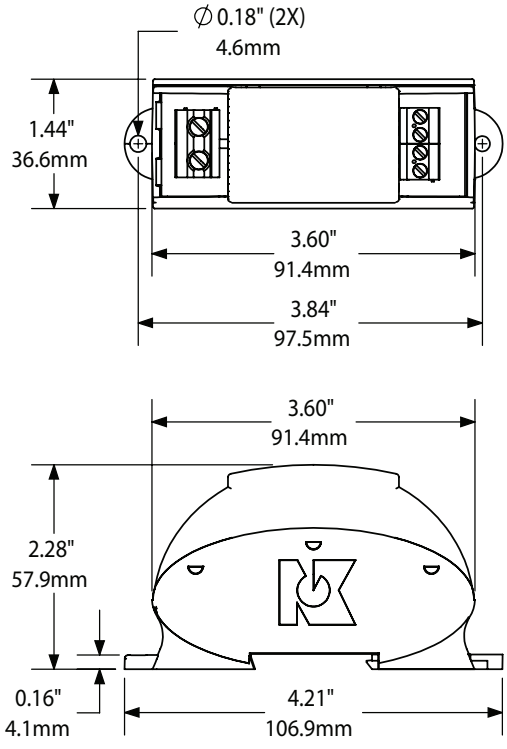
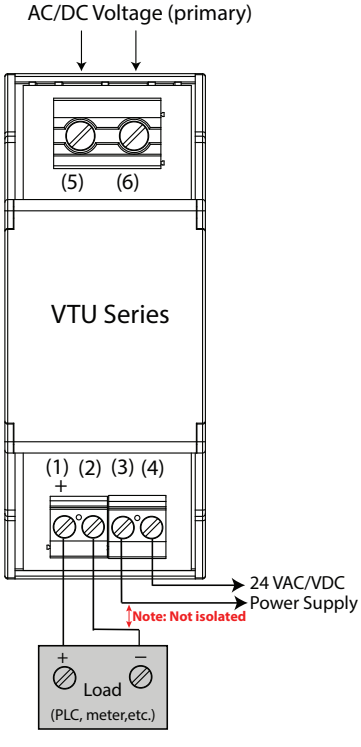
Voltage Transducers Dimensions



Voltage Transducers Specifications

Power Supply	24 VAC or VDC external power (22-26 VAC/VDC) (Not isolated from the output)
Power Consumption	<2 VA
Input Range: Input Impedance	15, 25, 50, 60: >220 KΩ, 120: >410 KΩ, 150, 240, 300, 400, 500, 600 VAC/VDC: 620 KΩ
Output Signal	• 4–20 mA proportional (capped at 31 mA max.) • 0–5 VDC (capped at 7.75 VDC) • 0–10 VDC (capped at 11.5 VDC)
Response Time	500 ms (to 90% of step change)
Accuracy	<1% FS error
Output Loading	• 4–20 mA output: <400 Ω • 0–5/10 VDC output: >50 KΩ
Isolation Voltage	2200 VAC
Frequency Range	0 Hz–5 KHz
Case	UL94 V-0 Flammability Rated; noncorrosive thermoplastic
Environmental	-4 to 122°F (-20 to 50°C) Surrounding Air 0–95% RH, non-condensing
Listings	UL/cUL, CE

Voltage Transducers Connections



Voltage Transducer Ordering Information

Sample Model Number: VTUE-420-24U-DIN

AC/DC voltage transducers with 120 V range, standard 4–20 mA proportional output; 24 VAC/VDC externally powered with a DIN rail compatible case.

	(1)		(2)			(3)			(4)		
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(1) Range

A	0–15 V
B	0–25 V
C	0–50 V
D	0–60 V
E	0–120 V
F	0–150 V
G	0–240 V
H	0–300 V
I	0–400 V
J	0–500 V
K	0–600 V

(2) Output Type

420	4–20 mA
005	0–5 VDC
010	0–10 VDC

(3) Power Supply

24U	24 VAC/VDC external power supply

(4) Mounting

DIN	DIN rail compatible

OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

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