GE
Grid Solutions

Models LLV & PNV
Voltage Transducers

Application

3 phase voltage measurement

Nominal Input Voltages

120 V, 240 V, 277 V, 480 V

Frequency

50/60 Hz.

Accuracy

±0.5 % Full scale.

Ambient Temperature Range

Effect on accuracy: ±0.3 % / ℃.
Operating: -30 ℃ to +60 ℃
Storage: -55 ℃ to +85 ℃.
Power supply: 24 V dc ± 10 %

Specifications

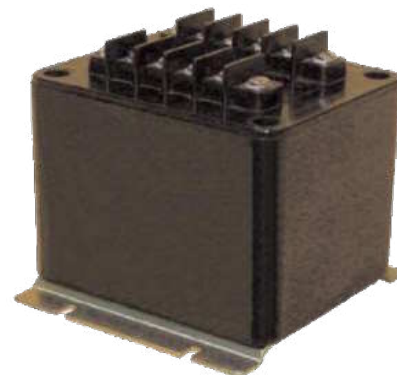Max. continuous input voltage: 600 V

Output: Load range: 0-600 Ω.
Load range: 4 to 20 mA dc.
Ripple: <1 %.
Response time: < 1.5 sec. (10 % to 90 %)

Approx. shipping weight 1.3 lbs.

Model LLV & PNV

	Line-to-Line voltage			Phase-to-Neutral voltage	
	LLV	LLV (Dual Range)		PNV	
Nominal Input Voltage	120 V	240 V	480 V	120 V	277 V
Voltage Input Range	90 V to 150 V	180 V to 300 V	360 V to 600 V	90 V to150 V	180 V to 300 V
Burden (Max.)	0.1 VA at 120 V	0.1 VA at 265 V	0.1 VA at 530 V	0.1 VA at 150 V	0.1 VA at 300 V
Ripple On Output			250 uA ac		
Dielectric Test (1 min)	1,300 V	1,600 V	2,200 V	1,300 V	1,600 V
Transfer function E_{in} =	(3.75) (mA out) +75	(7.5) (mA out) +150	(15) (mA out) +300	(3.75) (mA out)+75	(7.5) (mA out) +150

The model LLV and PNV series of voltage transducers are expanded scale instruments which are designed to accurately measure voltages on three phase systems. The LLV series is designed to meter line to line voltages and the PNV series is designed to meter phase to neutral voltages. The transducers provide three discrete 4 to 20mA outputs that are proportional to the three phase input voltages. The input voltages scale does not meter down to zero Volts, instead it is limited to the normal useful range of input voltages for a particular system. For example: The model PNV-120 has an input signal range from 90 to 150 V ac and will yield an output of 4 to 20 mA dc for that range.

The output is true constant current driver and is unaffected by resistance variations from 0-600 ohms in the output loop. An external 24Vdc supply is needed to provide power for the internal solid state circuitry. The power supply input has reverse polarity protection to prevent damage from an accidental miswire. The high accuracy solid state circuity is average responding calibrated to read RMS. This device is an ANSI/ISO 50.1 Class L3 transmitter.
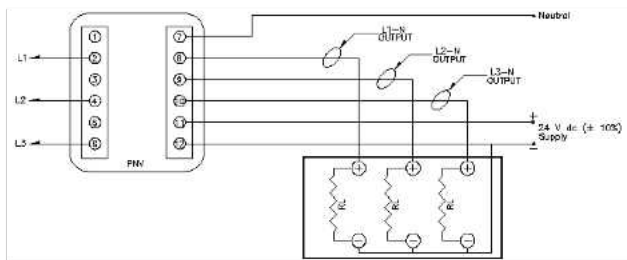
Models LLV & PNV

Top View   Side View
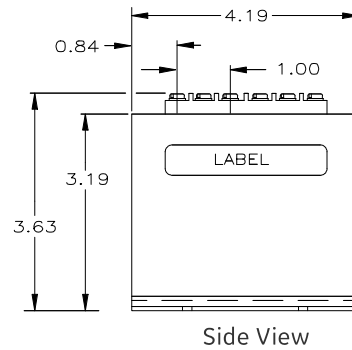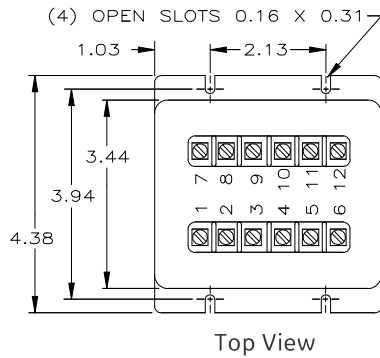
LLV (Line-to-Line) Connection Diagram   **PNV (Phase-to-Neutral) Connection Diagram**
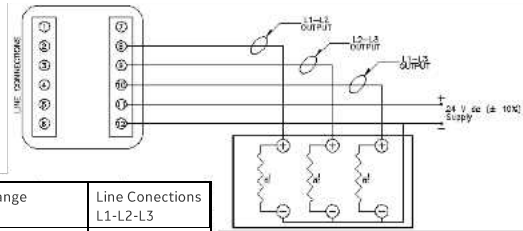
Model	Range	Line Conections L1-L2-L3
LVV 460	360 to 600 V	1-3-5
LVV 460	180 to 300 V	2-4-6
LVV120	90 to 150 V	2-4-6

Typical 4-20 mA input to processor
Max loop resistance 600 Ω/phase

Typical 4-20 mA input to processor
Max loop resistance 600 Ω/phase

It's recommended that the installation conform to NEC and any other local codes.

Cleaning

Remove dust with a damp cloth. Do not spray with any chemicals.

Caution

Proper safety precautions must be followed during installation by
a trained electrician. Never install or remove while bus is energized. Protective equipment must be used if hazardous parts in the installation where measurement is to be carried out could be accessible.

Ordering Information

MODEL ➝ XXX - XXX ⬅ NOMINAL

LLV

PNV

120

277 [PNV Model only]

480 [LLV (Dual Range) Model only]

Do not apply around or remove from Hazardous LIVE conductors.