EWRS525 Series Watt/VAR Transducers
±1mA DC Output ♦ Isolated Outputs Model

TRANSDATA®

Manufactured and Tested in the United States Since 1969

- **Accuracy to ±0.2% of Reading**
- **Exceptional Long-Term Stability and Reliability**
- **69, 240, 277 and 480 Volt Input Ranges Available**
- **1, 2.5 and 10 Amp Input Ranges Available**
- **5000 Volts Surge Withstand Capability**

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Model Specifications		Self Powered	Externally Powered
1 Element, Single Phase, 2 Wire 2 Elements, 3 Phase, 3 Wire Delta 2½ Elements, 3 Phase, 4 Wire WYE 3 Elements, 3 Phase, 4 Wire WYE	2.62 lbs (1.20 Kg) 3.25 lbs (1.47 Kg) 3.37 lbs (1.53 Kg) 3.62 lbs (1.64 Kg)	10EWRS525 (500 W/V FS Cal) 20EWRS525 (1000 W/V FS Cal) 25EWRS525 (1500 W/V FS Cal) 30EWRS525 (1500 W/V FS Cal)	10EWRS525E (500 W/V FS Cal) 20EWRS525E (1000 W/V FS Cal) 25EWRS525E (1500 W/V FS Cal) 30EWRS525E (1500 W/V FS Cal)
Nominal Potential Input		120 Volts	120 Volts
Potential Range With Rated Accuracy		85-150 Volts	0-185 Volts
Potential Overload, Continuous		175 Volts	200 Volts
Potential Burden Per Element at 120 Volts		Less than 0.02VA (1)	Less than 0.02VA
Nominal Current Input		5 Amps	5 Amps
Current Range With Rated Accuracy		0-10 Amps	0-10 Amps
Current Overload, Continuous with Linearity		15 Amps	15 Amps
Current Overload, Maximum		250 Amps for 1 Sec/Hour	250 Amps for 1 Sec/Hour
Current Burden Per Element at 5 Amps		Less than 0.15VA	Less than 0.15VA
Full Scale Calibration Input		500 Watts/VARs per Element(2)	500 Watts/VARs per Element(2)
Output at Full Scale Input		±1mA DC	±1mA DC
Output Load		0-10,000 Ohms	0-10,000 Ohms
Output Compliance		11 Volts	11 Volts
Accuracy at 25°C, ±2°C - Watts - VARs		±0.2% of Reading, ±0.01% of RO ±0.2% of Reading, ±0.03% of RO	±0.2% of Reading, ±0.01% of RO ±0.2% of Reading, ±0.03% of RO
Temperature Range		-20°C to +70°C	-20°C to +70°C
Temperature Influence - Watts - VARs		±0.005%/°C ±0.009%/°C	±0.005%/°C ±0.009%/°C
Response Time to 99%		Less Than 400 milli-seconds	Less Than 400 milli-seconds
Operating Humidity		0-99% non-condensing	0-99% non-condensing
Frequency Range		50 to 70 Hz (3)	50 to 70 Hz (3)
Power Factor Range		Any	Any
Calibration Adjustment		±10% (4)	±10% (4)
Zero Adjustment		None Required	None Required
Stability Maximum (per year)		±0.1% non-accumulative	±0.1% non-accumulative
Surge Withstand Capability IEEE No. 472		5000 Volts	5000 Volts
AC Component (Output Ripple)		Less than 0.5% of RO	Less than 0.5% of RO
Power Supply		Internal, Phase A	120 VAC
Dielectric Test (1 Min)		2000 Volts RMS	2000 Volts RMS

(1) Burden on Terminals 3 & 4 is <2.5VA (2) Other Full Scale Input Ranges Available (3) Available in 50Hz Models (4) Other Calibration Adjustments Available

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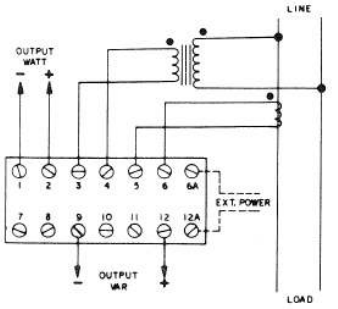
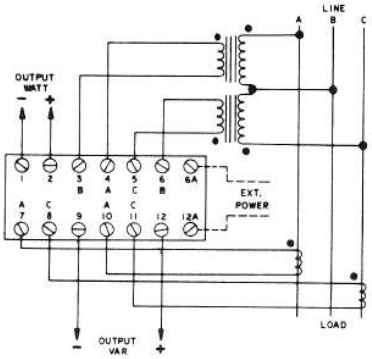
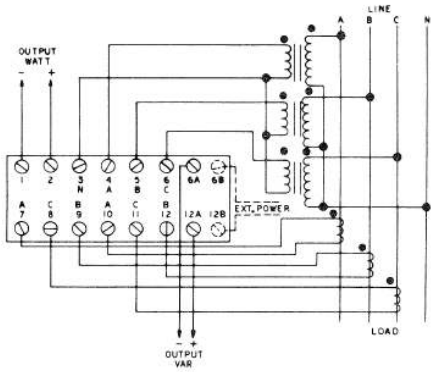
Isolated Output Models EWRS525



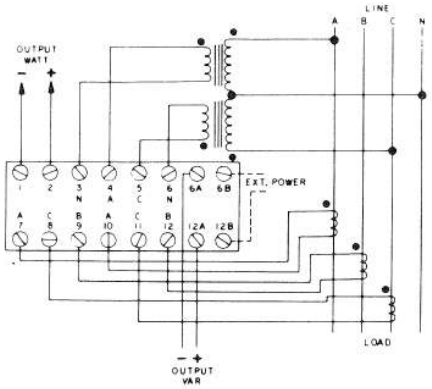
1 ELEMENT



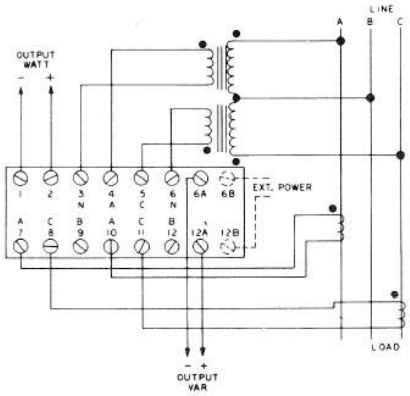
2 ELEMENT



3 ELEMENT



2½ ELEMENT



2½ ELEMENT CONNECTED AS 2 ELEMENT

APPLICATION:

TransData, Inc. Watt/Var transducers convert current and voltage input signals from a power system into DC output signals proportional to the true power and reactive power of the system.

SURGE WITHSTAND CAPABILITY:

TransData, Inc., transducers are designed to withstand transient surges up to 5000 volts applied between input/output/ground/ power supply.

The test waveform consists of a series of damped oscillations at 50KHz to 200KHz, the first peak being 5000 volts, decaying to 2000 volts in three cycles. These bursts are repeated at the rate of 120 per second for four seconds. Devices built with this protection will also pass the IEEE Standard No. 472 SWC Test.

Internal power connected to terminals 3 and 4 on self powered models. Externally powered models connected as shown on wiring diagrams.

The dots shown on the transformers are relative polarity markings and show the proper connection polarity. Instrument transformer terminals are marked with a dot, a ± symbol or other identifiable mark on both primary and secondary. Failure to observe the proper polarity may result in erroneous readings.

Grounding considerations may dictate connecting the primary opposite from the way shown. This is permissible if the secondary is also reversed, maintaining the same relative polarity.

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EWRS550 Series Watt/VAR Transducers
±1mA DC Output ♦ Common Ground Outputs

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Frequency Range		50 to 70 Hz (3)	50 to 70 Hz (3)
Power Factor Range		Any	Any
Calibration Adjustment		±10% (4)	±10% (4)
Zero Adjustment		None Required	None Required
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Surge Withstand Capability IEEE No. 472		5000 Volts	5000 Volts
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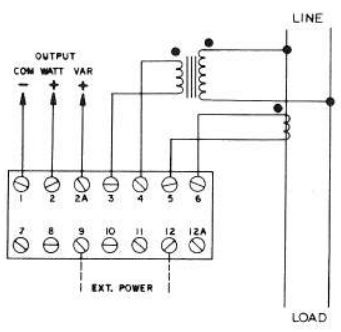
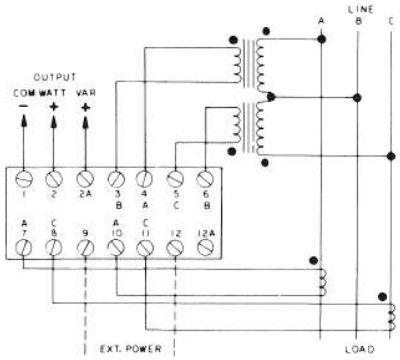
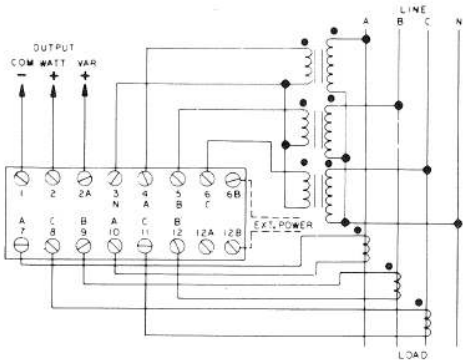
Common Ground Output Models EWRS550



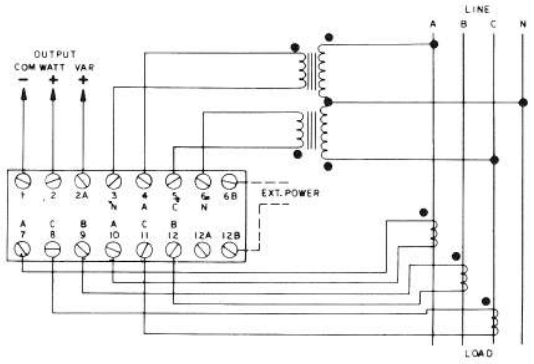
1 ELEMENT



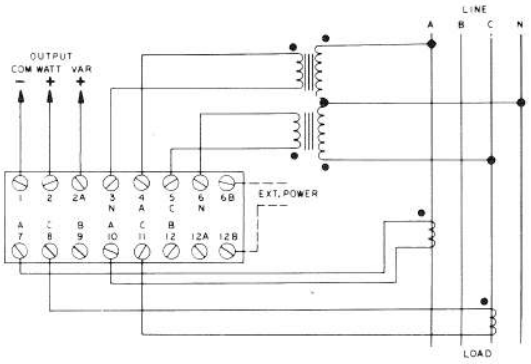
2 ELEMENT



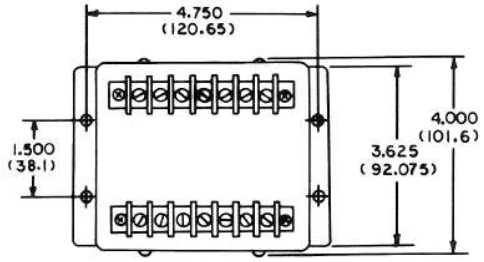
3 ELEMENT

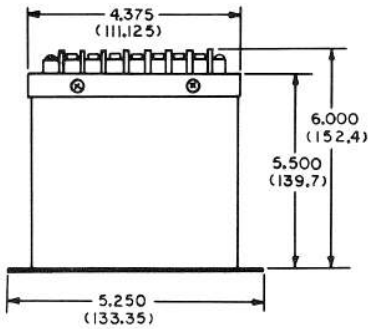


2½ ELEMENT



2½ ELEMENT CONNECTED AS 2 ELEMENT





Dimensions are in inches and (mm). Mounting holes (4) are 3/16" in diameter. Can is steel with integral mounting flanges. Terminal screws are 8-32 binding head.

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