

**CP500 Current Transducers ♦ 4-20mA DC Output**  
**VP500 Voltage Transducers ♦ 4-20mA DC Output**



*Manufactured and Tested  
in the United States  
Since 1969*

- **±0.2% of Rated Output Accuracy**
- **69, 240 and 480 Volt Input Ranges Available**
- **0.5, 1, 2.5 and 10 Amp Input Ranges Available**
- **Up to 300% Overload with Accuracy and Linearity**
- **5000 Volts Surge Withstand Capability**

**The Number-One Source for Reliable,  
Utility-Grade Electrical Power Transducers**

TransData is a leading manufacturer of utility-grade electrical power transducers for electric utility applications for over 50 years. TransData's transducers are used for measuring AC and DC power quantities and providing real-time information to SCADA and Energy Management Systems in a variety of Distribution, Substation, Generation and Industrial applications

TransData's electrical power transducers are precision engineered and manufactured to exacting standards utilizing superior grade materials and components that provide exceptional, long-term accuracy and reliability performance with rock solid stability.

TransData's transducers are direct pin-for-pin compatible with other brands and feature the utility specified all-steel enclosure with standardized mounting footprint.

**INDIVIDUAL SPECIFICATIONS:**

| Process Control Series                           | OUTPUT  | OUTPUT LOAD <sup>(1)</sup> | CURRENT   | VOLTAGE                  |
|--|---------|----------------------------|---|--------------------------|
| <b>CURRENT &amp;<br/>VOLTAGE<br/>TRANSDUCERS</b> | 1-5mA   | 0-6000 OHMS                | 10CP551   | 10VP551                  |
|  | 4-20mA  | 0-1500 OHMS                | 10CP552   | 10VP552                  |
|  | 10-50mA | 0-600 OHMS                 | 10CP553   | 10VP553                  |
| FULL SCALE INPUT                                 |         |                            | 5 Amperes <sup>(2)</sup>                          | 150 Volts <sup>(3)</sup> |
| INPUT RANGE WITH ACCURACY                        |         |                            | 0-10 Amperes                                      | 0-180 Volts              |
| OVERLOAD   |         |                            | 15 A.Cont., 50A.10 Sec./hr.,<br>400A.1.0 Sec./hr. | 200 Volts Cont.          |
| BURDEN   |         |                            | <0.15VA   | <0.2VA                   |

**GENERAL SPECIFICATIONS:**

|                              |                              |
|------------------------------|------------------------------|
| Accuracy @ 25°C ± 5°C        | ± 0.2% of R.O.               |
| Temperature Range            | -20°C to + 70°C              |
| Temperature Influence (Max.) | ± 0.005%/°C                  |
| Frequency Range              | 50-70HZ                      |
| A.C. Component (Peak)        | < 0.5%                       |
| Response Time to 99%         | < 400 MS                     |
| Operating Humidity           | 0-95%                        |
| Dielectric Test (1 Min.)     | 2000 V RMS                   |
| Surge Withstand Capability   | 5000 V Peak                  |
| Calibration Adjustment       | ± 10%                        |
| Zero (offset) Adjustment     | ± 5%                         |
| Power Supply                 | 100-130V. 60Hz < 7 VA @ R.O. |
| Weight                       | 2¼ lbs. (1.02 Kg)            |

(1) 30 Volt Compliance (2) Other Full Scale Current Input Ranges Available (3) Other Full Scale Voltage Input Ranges Available

**TRANSDATA, INC.**

**www.transdatainc.com**

2560 Tarpley Road • Carrollton, Texas 75006-2328 • Tel: 972-418-7717 • Fax: 972-418-7774 • Email: sales@transdatainc.com

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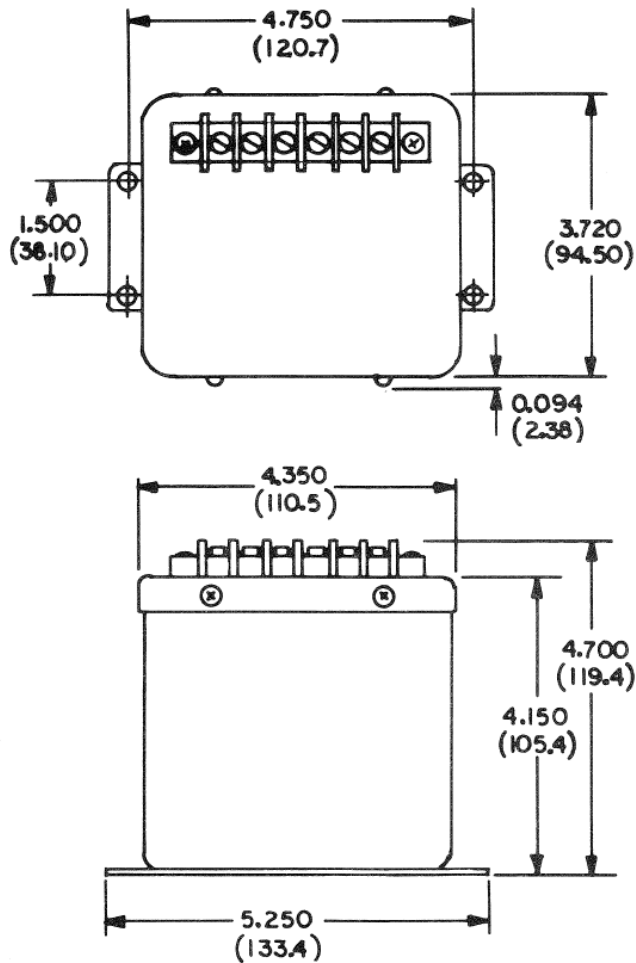


# PROCESS CONTROL CURRENT AND VOLTAGE TRANSDUCERS

## SURGE WITHSTAND CAPABILITY:

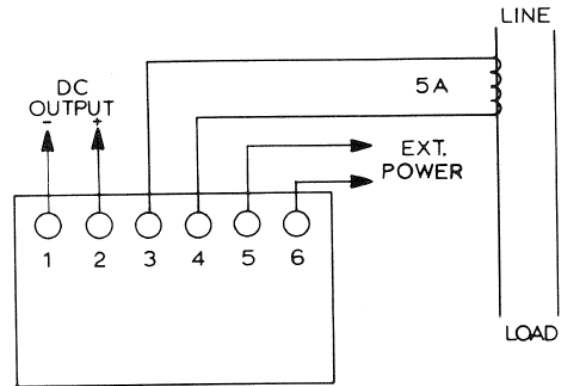
TransData, Inc. transducers are designed to withstand transient surges up to 5000 volts applied between input/output/case/power supply.

The test waveform consists of a series of damped oscillations at 50KHz to 200 KHz, 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.

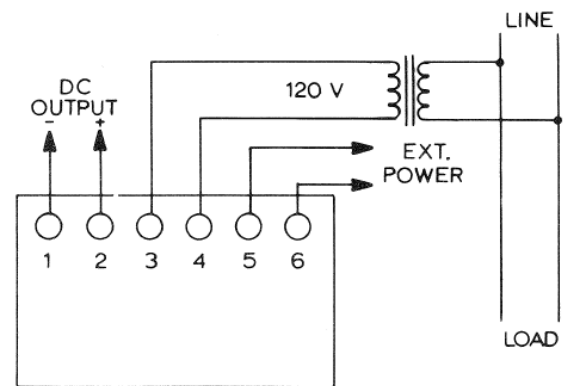


NOTE: DIMENSIONS ARE IN INCHES AND (MM)

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



10CP500 SERIES



10VP500 SERIES

## APPLICATION:

### TRANS DATA, INC. PROCESS CONTROL

Current and Voltage Transducers convert current or voltage input signals from a power system into DC output signals proportional to the current or voltage on the system.

**TRANSDATA, INC.**

[www.transdatainc.com](http://www.transdatainc.com)

2560 Tarpley Road • Carrollton, Texas 75006-2328 • Tel: 972-418-7717 • Fax: 972-418-7774 • Email: [sales@transdatainc.com](mailto:sales@transdatainc.com)

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# WP552 Series Watt Transducers

## 4-20mA DC Output



**Manufactured and Tested  
in the United States  
Since 1969**

- **Measures Uni-Directional Power Flow**
- **Accuracy to  $\pm 0.2\%$  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**

## The Number-One Source for Reliable, Utility-Grade Electrical Power Transducers

TransData is the leading manufacturer of utility-grade electrical power transducers for electric utility applications since 1969. TransData's transducers are used in a variety of Distribution, Substation, Generation and Industrial applications for accurately measuring various AC and DC power quantities and providing real-time information to SCADA and Energy Management Systems.

TransData's electrical power transducers are precision engineered to exacting standards utilizing superior grade materials and components that provide exceptional, long-term accuracy and reliability performance with rock solid stability.

TransData's transducers are direct pin-for-pin compatible with other brands and feature the utility specified all-steel enclosure with standardized mounting footprint.

### Specifications

|   | Self Powered  | Externally Powered  |
|---|---|---|
| Models                                      | 10WP552S (500 Watts FS Cal)<br>20WP552S (1000 Watts FS Cal)<br>25WP552S (1500 Watts FS Cal)<br>30WP552S (1500 Watts FS Cal) | 10WP552 (500 Watts FS Cal)<br>20WP552 (1000 Watts FS Cal)<br>25WP552 (1500 Watts FS Cal)<br>30WP552 (1500 Watts 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 <sup>(1)</sup>   | 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 per Element <sup>(2)</sup>  | 500 Watts per Element <sup>(2)</sup>  |
| Output at Full Scale Input                  | 4-20mA DC   | 4-20mA DC   |
| Output Load                                 | 0-10,000 Ohms   | 0-10,000 Ohms   |
| Output Compliance                           | 11 Volts  | 11 Volts  |
| Accuracy at 25°C, $\pm 2^\circ\text{C}$     | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO  | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO  |
| Temperature Range                           | -20°C to +70°C  | -20°C to +70°C  |
| Temperature Influence - Max                 | $\pm 0.005\%/^\circ\text{C}$  | $\pm 0.005\%/^\circ\text{C}$  |
| 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 <sup>(3)</sup>  | 50 to 70 Hz <sup>(3)</sup>  |
| Power Factor Range                          | Any   | Any   |
| Calibration Adjustment                      | $\pm 10\%$ <sup>(4)</sup>   | $\pm 10\%$ <sup>(4)</sup>   |
| Zero Adjustment                             | None Required   | None Required   |
| Stability Maximum (per year)                | $\pm 0.1\%$ non-accumulative  | $\pm 0.1\%$ 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

**TRANSDATA, INC.**

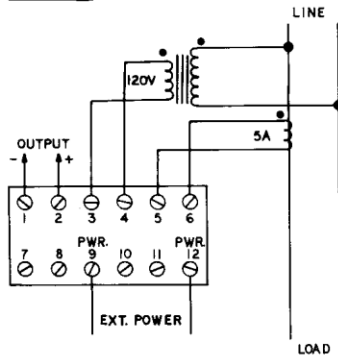
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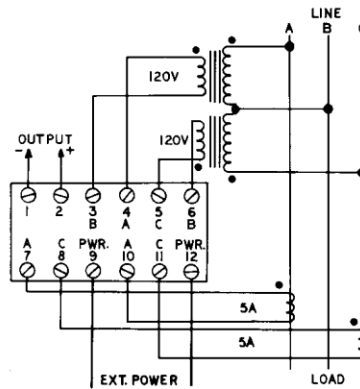
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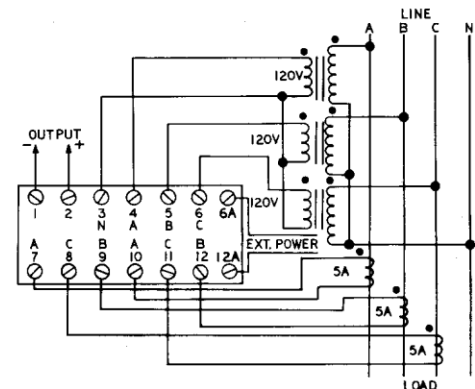
# PROCESS CONTROL WATT TRANSDUCERS



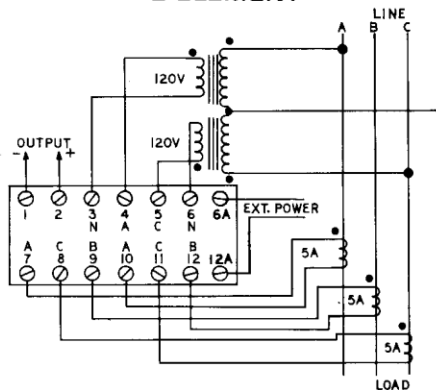
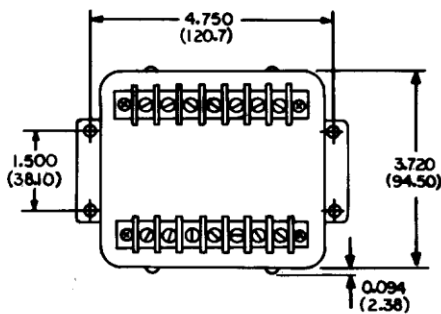
**1 ELEMENT**



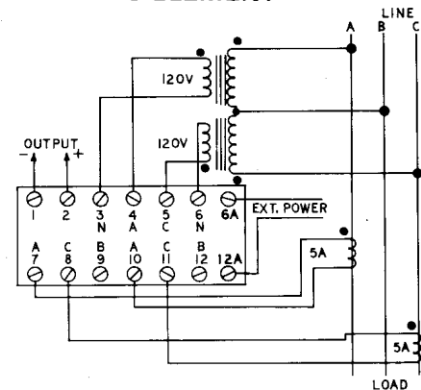
**2 ELEMENT**



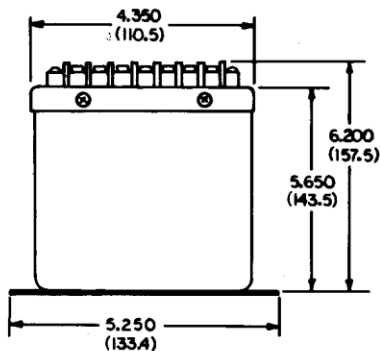
**3 ELEMENT**



**2 1/2 ELEMENT**



**2 1/2 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.

## APPLICATION:

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

## SURGE WITHSTAND CAPABILITY:

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

The test waveform consists of a series of damped oscillations at 50KHz to 200 KHz, 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.

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  $\pm$  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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# RP552 Series VAR Transducers

## 4-20mA DC Output



**Manufactured and Tested  
in the United States  
Since 1969**

- **Measures Uni-Directional Power Flow**
- **Accuracy to  $\pm 0.2\%$  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**

### The Number-One Source for Reliable, Utility-Grade Electrical Power Transducers

TransData is the leading manufacturer of utility-grade electrical power transducers for electric utility applications since 1969. TransData's transducers are used in a variety of Distribution, Substation, Generation and Industrial applications for accurately measuring various AC and DC power quantities and providing real-time information to SCADA and Energy Management Systems.

TransData's electrical power transducers are precision engineered to exacting standards utilizing superior grade materials and components that provide exceptional, long-term accuracy and reliability performance with rock solid stability.

TransData's transducers are direct pin-for-pin compatible with other brands and feature the utility specified all-steel enclosure with standardized mounting footprint.

### Specifications

|   | Self Powered  | Externally Powered  |
|---|---|---|
| Models                                      | 10RP552S (500 VARS FS Cal)<br>20RP552S (1000 VARS FS Cal)<br>25RP552S (1500 VARS FS Cal)<br>30RP552S (1500 VARS FS Cal) | 10RP552 (500 VARS FS Cal)<br>20RP552 (1000 VARS FS Cal)<br>25RP552 (1500 VARS FS Cal)<br>30RP552 (1500 VARS 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 <sup>(1)</sup>   | 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 VARS per Element <sup>(2)</sup>   | 500 VARS per Element <sup>(2)</sup>   |
| Output at Full Scale Input                  | 4-20mA DC   | 4-20mA DC   |
| Output Load                                 | 0-10,000 Ohms   | 0-10,000 Ohms   |
| Output Compliance                           | 11 Volts  | 11 Volts  |
| Accuracy at 25°C, $\pm 2^\circ\text{C}$     | $\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO  | $\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO  |
| Temperature Range                           | -20°C to +70°C  | -20°C to +70°C  |
| Temperature Influence - Max                 | $\pm 0.009\%/^\circ\text{C}$  | $\pm 0.009\%/^\circ\text{C}$  |
| 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 <sup>(3)</sup>  | 50 to 70 Hz <sup>(3)</sup>  |
| Power Factor Range                          | Any   | Any   |
| Calibration Adjustment                      | $\pm 10\%$ <sup>(4)</sup>   | $\pm 10\%$ <sup>(4)</sup>   |
| Zero Adjustment                             | None Required   | None Required   |
| Stability Maximum (per year)                | $\pm 0.1\%$ non-accumulative  | $\pm 0.1\%$ 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

**TRANSDATA, INC.**

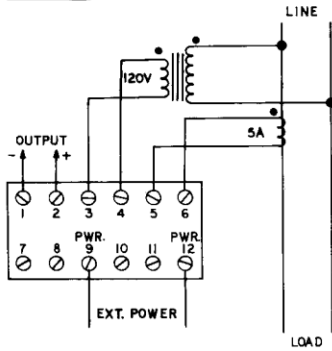
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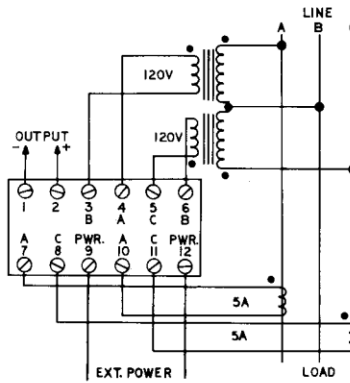
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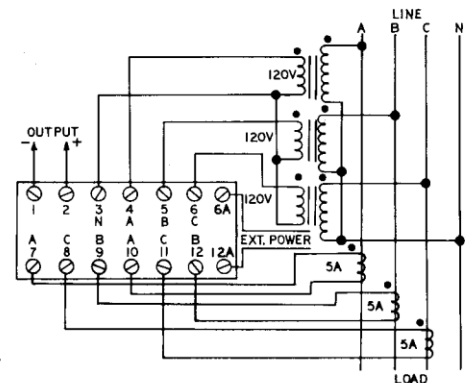
# PROCESS CONTROL VAR TRANSDCERS



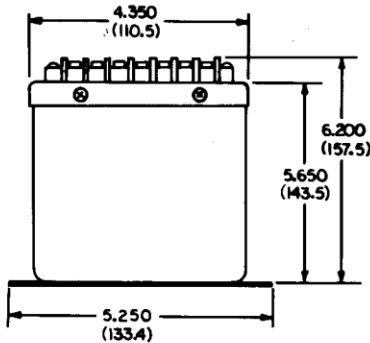
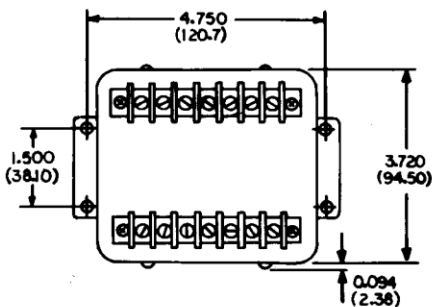
**1 ELEMENT**



**2 ELEMENT**



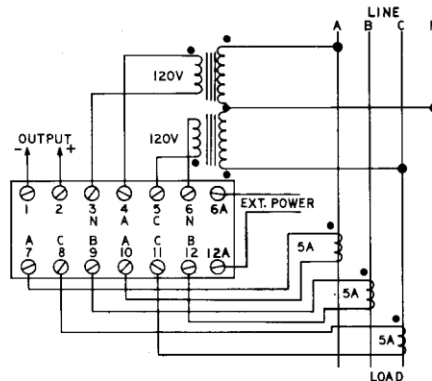
**3 ELEMENT**



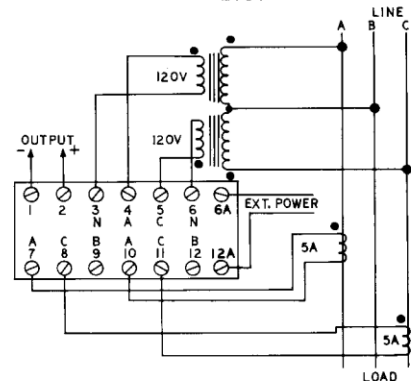
Dimensions are in inches and (mm). Mounting holes (4) are 3/16" in diameter. Can is steel with integral mounting flanges. Terminal screws are 8-32 binding head.

## APPLICATION:

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



**2 1/2 ELEMENT**



**2 1/2 ELEMENT CONNECTED AS 2 ELEMENT**

## SURGE WITHSTAND CAPABILITY:

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

The test waveform consists of a series of damped oscillations at 50KHz to 200 KHz, 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.

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  $\pm$  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.

# WRP552 Series Watt/VAR Transducers

## 4-20mA DC Outputs



*Manufactured and Tested  
in the United States  
Since 1969*

- Measures Uni-Directional Power Flow
- Accuracy to  $\pm 0.2\%$  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

### The Number-One Source for Reliable, Utility-Grade Electrical Power Transducers

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TransData's electrical power transducers are precision engineered to exacting standards utilizing superior grade materials and components that provide exceptional, long-term accuracy and reliability performance with rock solid stability.

TransData's transducers are direct pin-for-pin compatible with other brands and feature the utility specified all-steel enclosure with standardized mounting footprint.

### Specifications

|   | Self Powered  | Externally Powered  |
|---|---|---|
| Models  | 10WRP552S (500 W/V FS Cal)<br>20WRP552S (1000 W/V FS Cal)<br>25WRP552S (1500 W/V FS Cal)<br>30WRP552S (1500 W/V FS Cal) | 10WRP552 (500 W/V FS Cal)<br>20WRP552 (1000 W/V FS Cal)<br>25WRP552 (1500 W/V FS Cal)<br>30WRP552 (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 <sup>(1)</sup>   | 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 <sup>(2)</sup>   | 500 Watts/VARS per Element <sup>(2)</sup>   |
| Output at Full Scale Input                                | 4-20mA DC   | 4-20mA DC   |
| Output Load   | 0-10,000 Ohms   | 0-10,000 Ohms   |
| Output Compliance   | 11 Volts  | 11 Volts  |
| Accuracy at 25°C, $\pm 2^\circ\text{C}$ - Watts<br>- VARS | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO<br>$\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO                                | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO<br>$\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO                            |
| Temperature Range   | -20°C to +70°C  | -20°C to +70°C  |
| Temperature Influence - Watts<br>- VARS                   | $\pm 0.005\%/^\circ\text{C}$<br>$\pm 0.009\%/^\circ\text{C}$  | $\pm 0.005\%/^\circ\text{C}$<br>$\pm 0.009\%/^\circ\text{C}$  |
| 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 <sup>(3)</sup>  | 50 to 70 Hz <sup>(3)</sup>  |
| Power Factor Range  | Any   | Any   |
| Calibration Adjustment                                    | $\pm 10\%$ <sup>(4)</sup>   | $\pm 10\%$ <sup>(4)</sup>   |
| Zero Adjustment   | None Required   | None Required   |
| Stability Maximum (per year)                              | $\pm 0.1\%$ non-accumulative  | $\pm 0.1\%$ 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  |

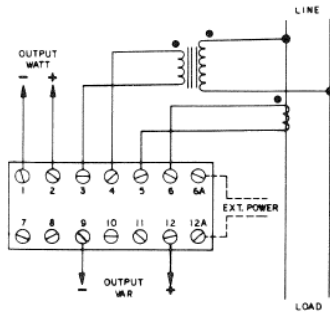
(1) Burden on Terminals 3 & 4 is <2.5VA (2) Other Full Scale Input Ranges Available (3) Available in 50Hz Models (4) Other Calibration Adjustments Available

**TRANSDATA, INC.**

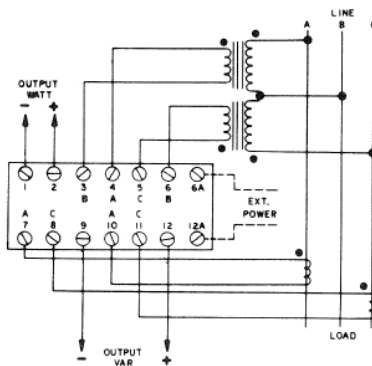
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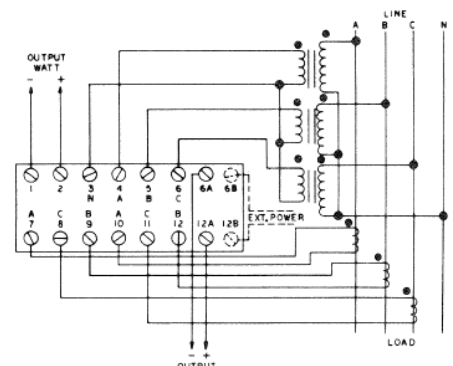
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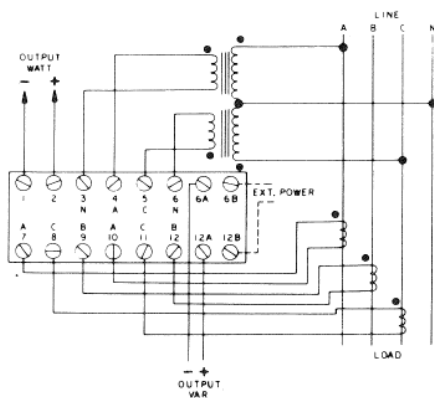
1 ELEMENT



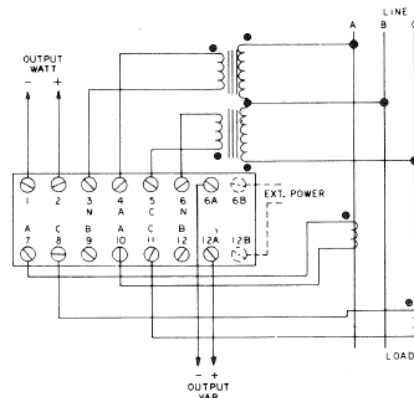
2 ELEMENT



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  $\pm$  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.

**TRANSDATA, INC.**

[www.transdatainc.com](http://www.transdatainc.com)

2560 Tarpley Road • Carrollton, Texas 75006-2328 • Tel: 972-418-7717 • Fax: 972-418-7774 • Email: [sales@transdatainc.com](mailto:sales@transdatainc.com)

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# WRP552-12 Series Watt/VAR Transducers

## 4-12-20mA DC Bi-Polar Outputs (12mA Zero)



**Manufactured and Tested  
in the United States  
Since 1969**

- **Measures Bidirectional Power Flow**
- **Accuracy to  $\pm 0.2\%$  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**

### The Number-One Source for Reliable, Utility-Grade Electrical Power Transducers

TransData is the leading manufacturer of utility-grade electrical power transducers for electric utility applications since 1969. TransData's transducers are used in a variety of Distribution, Substation, Generation and Industrial applications for accurately measuring various AC and DC power quantities and providing real-time information to SCADA and Energy Management Systems.

TransData's electrical power transducers are precision engineered to exacting standards utilizing superior grade materials and components that provide exceptional, long-term accuracy and reliability performance with rock solid stability.

TransData's transducers are direct pin-for-pin compatible with other brands and feature the utility specified all-steel enclosure with standardized mounting footprint.

### Specifications

|   | Self Powered  | Externally Powered  |
|---|---|---|
| Models  | 10WRP552S-12 (500 W/V FS Cal)<br>20WRP552S-12 (1000 W/V FS Cal)<br>25WRP552S-12 (1500 W/V FS Cal)<br>30WRP552S-12 (1500 W/V FS Cal) | 10WRP552-12 (500 W/V FS Cal)<br>20WRP552-12 (1000 W/V FS Cal)<br>25WRP552-12 (1500 W/V FS Cal)<br>30WRP552-12 (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 <sup>(1)</sup>   | 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 <sup>(2)</sup>   | 500 Watts/VARS per Element <sup>(2)</sup>   |
| Output at Full Scale Input                                | 4-12-20mA DC  | 4-12-20mA DC  |
| Output Load   | 0-10,000 Ohms   | 0-10,000 Ohms   |
| Output Compliance   | 11 Volts  | 11 Volts  |
| Accuracy at 25°C, $\pm 2^\circ\text{C}$ - Watts<br>- VARS | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO<br>$\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO  | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO<br>$\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO  |
| Temperature Range   | -20°C to +70°C  | -20°C to +70°C  |
| Temperature Influence - Watts<br>- VARS                   | $\pm 0.005\%/^\circ\text{C}$<br>$\pm 0.009\%/^\circ\text{C}$  | $\pm 0.005\%/^\circ\text{C}$<br>$\pm 0.009\%/^\circ\text{C}$  |
| 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 <sup>(3)</sup>  | 50 to 70 Hz <sup>(3)</sup>  |
| Power Factor Range  | Any   | Any   |
| Calibration Adjustment                                    | $\pm 10\%$ <sup>(4)</sup>   | $\pm 10\%$ <sup>(4)</sup>   |
| Zero Adjustment   | None Required   | None Required   |
| Stability Maximum (per year)                              | $\pm 0.1\%$ non-accumulative  | $\pm 0.1\%$ 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

**TRANSDATA, INC.**

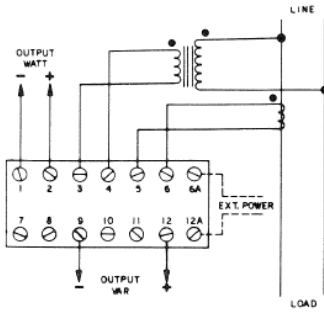
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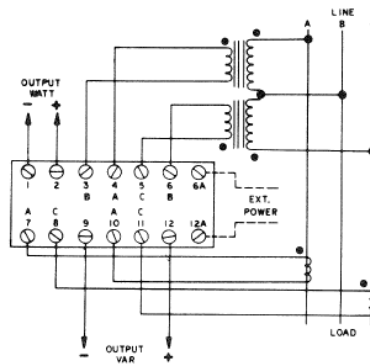
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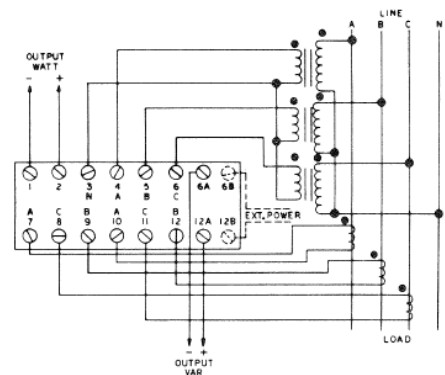
## WRP552-12 Series Watt/VAR Transducers



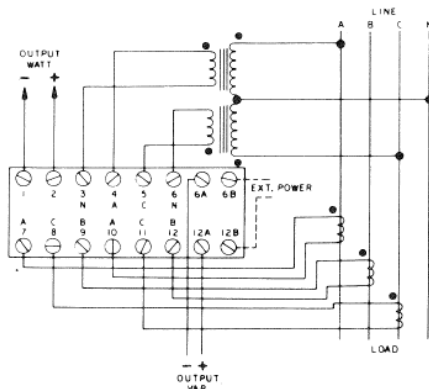
1 ELEMENT



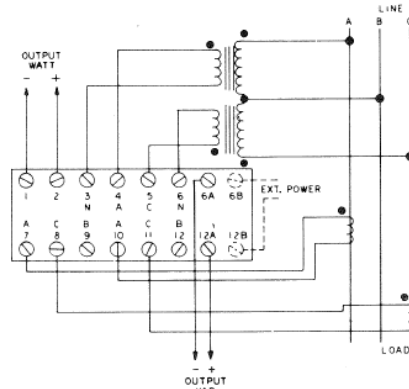
2 ELEMENT



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  $\pm$  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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# WRP552-24 Series Watt/VAR Transducers

## 4-20mA Watt Output, 4-12-20mA VAR Output



*Manufactured and Tested  
in the United States  
Since 1969*

- **Unidirectional Watts, Bi-directional VARS**
- **Accuracy to  $\pm 0.2\%$  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**

### The Number-One Source for Reliable, Utility-Grade Electrical Power Transducers

TransData is the leading manufacturer of utility-grade electrical power transducers for electric utility applications since 1969. TransData's transducers are used in a variety of Distribution, Substation, Generation and Industrial applications for accurately measuring various AC and DC power quantities and providing real-time information to SCADA and Energy Management Systems.

TransData's electrical power transducers are precision engineered to exacting standards utilizing superior grade materials and components that provide exceptional, long-term accuracy and reliability performance with rock solid stability.

TransData's transducers are direct pin-for-pin compatible with other brands and feature the utility specified all-steel enclosure with standardized mounting footprint.

### Specifications

|   | Self Powered  | Externally Powered  |
|---|---|---|
| Models  | 10WRP552S-24 (500 W/V FS Cal)<br>20WRP552S-24 (1000 W/V FS Cal)<br>25WRP552S-24 (1500 W/V FS Cal)<br>30WRP552S-24 (1500 W/V FS Cal) | 10WRP552-24 (500 W/V FS Cal)<br>20WRP552-24 (1000 W/V FS Cal)<br>25WRP552-24 (1500 W/V FS Cal)<br>30WRP552-24 (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 <sup>(1)</sup>   | 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 <sup>(2)</sup>   | 500 Watts/VARS per Element <sup>(2)</sup>   |
| Output at Full Scale Input                                | 4-12-20mA DC  | 4-12-20mA DC  |
| Output Load   | 0-10,000 Ohms   | 0-10,000 Ohms   |
| Output Compliance   | 11 Volts  | 11 Volts  |
| Accuracy at 25°C, $\pm 2^\circ\text{C}$ - Watts<br>- VARS | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO<br>$\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO  | $\pm 0.2\%$ of Reading, $\pm 0.01\%$ of RO<br>$\pm 0.2\%$ of Reading, $\pm 0.03\%$ of RO  |
| Temperature Range   | -20°C to +70°C  | -20°C to +70°C  |
| Temperature Influence - Watts<br>- VARS                   | $\pm 0.005\%/^\circ\text{C}$<br>$\pm 0.009\%/^\circ\text{C}$  | $\pm 0.005\%/^\circ\text{C}$<br>$\pm 0.009\%/^\circ\text{C}$  |
| 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 <sup>(3)</sup>  | 50 to 70 Hz <sup>(3)</sup>  |
| Power Factor Range  | Any   | Any   |
| Calibration Adjustment                                    | $\pm 10\%$ <sup>(4)</sup>   | $\pm 10\%$ <sup>(4)</sup>   |
| Zero Adjustment   | None Required   | None Required   |
| Stability Maximum (per year)                              | $\pm 0.1\%$ non-accumulative  | $\pm 0.1\%$ 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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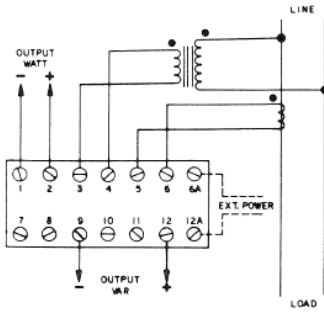
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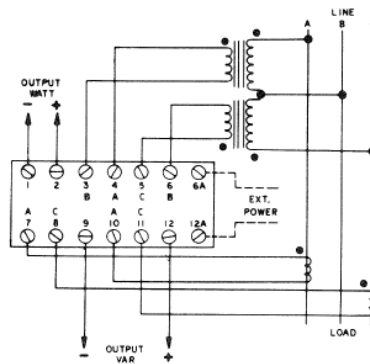
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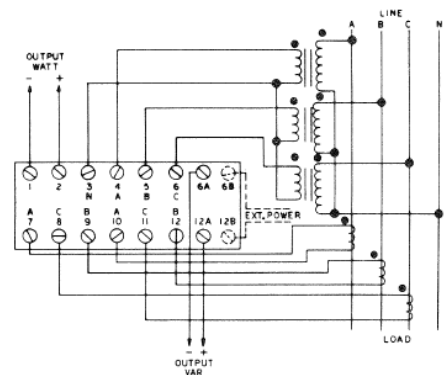
## WRP552-24 Series Watt/VAR Transducers



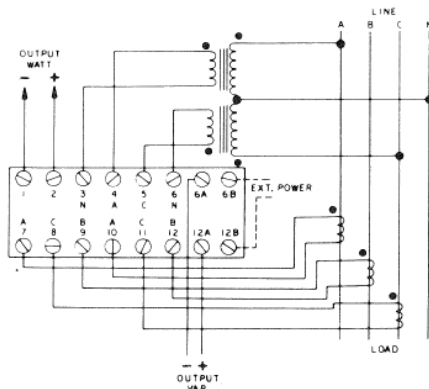
1 ELEMENT



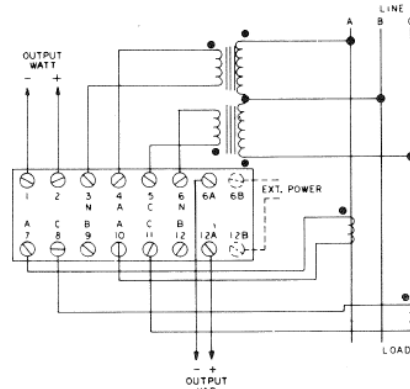
2 ELEMENT



3 ELEMENT



2½ ELEMENT



2½ ELEMENT CONNECTED  
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