Distribution Substation, Generation and Industrial Applications

TransData power transducers are used in a variety of Distribution and Transmission Substations, Generation and Industrial applications for measuring various AC and DC power quantities and providing real-time analog signals and/or KYZ pulse data to drive SCADA, Energy Management Systems, and driving panel instruments.

Determining the Number of Elements

An element is a circuit that accepts voltage and current signals, and creates an output signal representing power. The number of elements required is 1 less than the number of wires delivering power from the source to the load.

- 1 Element : 1 phase, 2 wire
- 2 Elements: 3 phase, 3 wire
- 2.5 Elements: 3 phase, 4 wire Delta
- 3 Elements: 3 phase, 4 wire WYE

Available Output Options

- 0-1mA: Represents unidirectional quantities like voltage and current
- $\pm$1mA: Bidirectional quantities like watts and VARs that can flow in forward and reverse directions. Positive values (0 to +1mA) represent delivered power. Negative values (-1 to 0mA) represent received power.
- 4-20mA: also used for bidirectional quantities, with 12mA being the zero value. DC milliamp signals above 12mA (12to 20mA) indicate delivered power, and signals below 12mA (4 to 12mA) represent received power.

Calibrating Watts and VARs

The calibrating watts or VARs indicates the full-scale watt or VAR value that is equal to the upper limit of the mA output.
Example: If the full scale calibrating watts is 1000 for a $\pm$1mA output, then a 1mA output represents 1000 delivered watts.

Custom Scaling

TransData offers a variety of custom configurations to match exactly the scaling needs of your application. This can be notated in the transducer model number with a "-xxxx" to indicate the custom calibrating watt value.

Popular Transducer Models

- EWRS500: Watt/VAR Transducers
- PS501: Voltage Transducers
- CS501: Current Transducers
- 10ID70X: DC Voltage Substation Battery Monitor
- HS900: Frequency Transducer
- PA500: Phase Angle Transducer

Sample Wiring
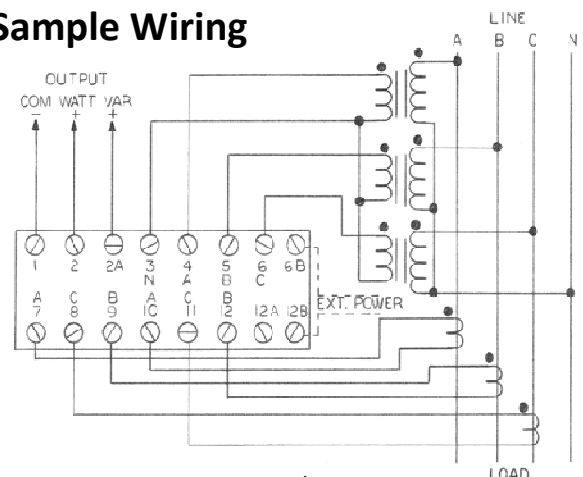
3 Element EWRS500 Watt/VAR Transducer

Easy Online Ordering

Order online for fast delivery with free overnight shipping. Calibration certificate included.
www.amazon.com/s?me=A1L8ODIW3NNPQL
Sales: sales@transdatainc.com

For more information, visit us at www.transdatainc.com

The Trusted Source for Superior Utility-Grade Transducers since 1969.

TransData is a leading manufacturer of innovative solid-state energy meters, power transducers and demand recorder products for the utility marketplace. With extensive energy metering experience spanning five decades, TransData offers best-of-class products and support that enables our customers to more efficiently measure, manage and communicate energy data.

TransData power transducers are used in a variety of Distribution Substation, Generation and Industrial applications for measuring various AC and DC power quantities and providing real-time analog signals and/or KYZ pulse data to drive SCADA and Energy Management Systems.

TransData power transducers are precision engineered to exacting standards utilizing the finest materials and components to provide superior accuracy and long-term reliability performance. Our transducers are direct pin-for-pin wiring compatible with other brands and feature a utility specified steel enclosure with standardized mounting footprint.

When you specify TransData transducers for your next project, you're getting the absolute best quality and value available in the marketplace.

Transducer Selection Guide

STANDARD MODELS - 120 Volts, 5 Amps, 60 Hz	0–1mA	±1mA	4–20mA	4–12–20mA	KYZ Pulse Output
Ampere 1 Phase	10CS501	----------	10CP552	----------	10AHS511EM
Ampere (3 in 1 Model)	30CS501	----------	----------	----------	----------
Voltage 1 Phase	10PS501	----------	10VP552	----------	10VHS511EM
Voltage (3 in 1 Model)	30PS501	----------	----------	----------	----------
DC Voltage Battery Monitor (Specify Voltage)	10ID70X	----------	10ID71X	----------	----------
1 Element Watt	----------	10EWS501(E)	10WP552	10WP552-12	10WHS511(521)
2 Element Watt	----------	20EWS501(E)	20WP552	20WP552-12	20WHS511(521)
2½ Element Watt	----------	25EWS501(E)	25WP552	25WP552-12	25WHS511(521)
3 Element Watt	----------	30EWS501(E)	30WP552	30WP552-12	30WHS511(521)
1 Element VAR	----------	10ERS501(E)	10RP552	10RP552-12	10RHS511(521)
2 Element VAR	----------	20ERS501(E)	20RP552	20RP552-12	20RHS511(521)
2½ Element VAR	----------	25ERS501(E)	25RP552	25RP552-12	25RHS511(521)
3 Element VAR	----------	30ERS501(E)	30RP552	30RP552-12	30RHS511(521)
1 Element Watt-VAR (Isolated Outputs)	----------	10EWRS525(E)	10WRP552	10WRP552-12	----------
1 Element Watt-VAR (Common Ground)	----------	10EWRS550(E)	----------	----------	----------
2 Element Watt-VAR (Isolated Outputs)	----------	20EWRS525(E)	20WRP552	20WRP552-12	----------
2 Element Watt-VAR (Common Ground)	----------	20EWRS550(E)	----------	----------	----------
2½ Element Watt-VAR (Isolated Outputs)	----------	25EWRS525(E)	25WRP552	25WRP552-12	----------
2½ Element Watt-VAR (Common Ground)	----------	25EWRS550(E)	----------	----------	----------
3 Element Watt-VAR (Isolated Outputs)	----------	30EWRS525(E)	30WRP552	30WRP552-12	----------
3 Element Watt-VAR (Common Ground)	----------	30EWRS550(E)	----------	----------	----------
Frequency ±1Hz (59-61Hz)	60HS911	60HS912	60HS911-552	----------	----------
Frequency ±5Hz (55-65Hz)	60HS951	60HS952	60HS951-552	----------	----------
Phase Angle - Voltage vs. Voltage	10PA503	10PA501	10PA501-552	----------	----------
Power Factor - Voltage vs. Current	10PA523	10PA521	10PA521-552	----------	----------

(E) Suffix when added to the model number denotes External Power Supply Option on Selected Models