Type V-2 Transducers

1% Accuracy Class

Application
Type V-2 transducers convert complex electrical quantities into direct currents which can be measured by conventional indicating instruments. While these devices were designed primarily for combination with Westinghouse panel instruments they can be used with any other manufacturer’s instrument. Transducers of this type may be used as inputs to control or data acquisition systems, to computers, to telemeters, or to recorders. Where the output level of the transducer is insufficient it may be combined with an amplifier to get a suitably high signal level. Transducers noted as output non-linear are primarily for use with indicating instruments.

Features
The V-2 transducers are all solid state devices utilizing printed circuit techniques in the basic component assembly. Each has a permanent diagram label attached on the top (terminal) side.

A permanent diagram label is attached on one end of the transducer.

V-2 transducers are identical in size, except for a greater width on the single phase var transducer. The base dimensions are such that they can be gang-mounted horizontally or vertically on either a standard rack or on a conventional control panel. The uniform height makes for a neat appearance and ease of wiring group installations. There is no interaction between gang-mounted transducers.

All transducers have unfiltered outputs. Filter modules may be added when minimum output ripple is desired. Filters may be used only with loads of 50,000 ohms or more.

These filter units are made in three types:
1. With 50 ohm load resistor for use with watt and var transducers where a fixed millivolt output is required.
2. With 50 ohm load resistors and potentiometers for use with watt and var transducers where an adjustable (0-50 mv) output voltage is required.
3. With provisions for the external connection of a load resistor to suit the transducer used.

Types Available
Watts
Type VP2-840, Hall Generator
Input: 5amps, 120 volts, 60 or 400 Hz and 240 volts, 60 Hz.
Output: ±25 (50) mv across 50 ohms, linear.
Response Time: Full output within 0.05 sec.
Single Phase, 500 Watts: 1 element.
Three Phase 3 Wire, 1000 Watts: 2 elements.
Three Phase 4 Wire, 1500 Watts: 2½ elements.
Case: 3.0” x 5.75”.

Type VV2-840, Hall Generator
Input: 5amps, 120 volts, 60 or 400 Hz and 240 volts, 60 Hz.
Output: ±25 (50) mv across 100 ohms, linear.
Response Time: Full output within 0.05 sec.
Single Phase, 200 Watts: 1 element.
Three Phase 3 Wire, 600 Watts: 2 elements.
Three Phase 4 Wire, 900 Watts: 2 elements.
Case: 3.0” x 5.75”.

Type VP2-841, Bridge Type With RMS Network
Input: 500 volt peak, 60 Hz.
Output: 1 ma into 100 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VV2-841, Bridge Type With RMS Network
Input: 1 ma into 10,000 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VI2-841, Bridge Type With RMS Network
Input: 1 ma into 10,000 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VE2-841, Bridge Type With RMS Network
Input: 1 ma into 10,000 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VF2-841, Bridge Type With RMS Network
Input: 500 volt peak, 60 Hz.
Output: 1 ma into 100 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VE2-876, Bridge Type With RMS Network
Input: 500 volt peak, 60 Hz.
Output: 1 ma into 100 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VF2-876, Bridge Type With RMS Network
Input: 500 volt peak, 60 Hz.
Output: 1 ma into 100 ohms, linear.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VE2-876, Zero Cross-Over Switch
Input: 5amps, 120 volts, 60 Hz.
Output: 0.5-1-0.5 power factor.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VF2-876, Nulling Type
Input: 120 volt transformer, 60 Hz.
Output: ±0.5-1-0.5 power factor.
Response Time: Full output within 0.1 sec.
Case: 3.0” x 5.75”.

Type VE2-876, Linear
Input: 120 volt transformer, 60 Hz.
Output: ±0.5-1-0.5 power factor.
Response Time: Full output within 0.1 sec.
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Type VC2-841, Nulling Type
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Type VE2-876, Linear
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Outline Dimensions (In Inches)
5½ Inch Case Top View and Drilling Plan

3 Inch Case Top View and Drilling Plan

5½ Inch and 3 Inch Case Front View

Further Information
Prices, Ordering Information:
Transducers and Filter Unit – PL 43-860
Application Data: AD 43-860
Instructions:
Watt Transducer – IL 43-840.3
Power Factor Transducer – IL 43-841.5
Frequency Transducer – IL 43-841.3
Var Transducer – IL 43-840.4
Voltage RMS, Current RMS Expanded
Voltage Transducer – IL 43-841.1
Temperature Transducer – IL 43-841.6
Speed (Pulse) Transducer – IL 43-841.7
Filters – IL 43-876.1
Modification and Calibration: IL 43-800.3

Westinghouse Electric Corporation
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