

## DC TO 10KHZ FREQUENCY RANGE

### DESCRIPTION

The model VT7 dc voltage transducer provides an output directly proportional to the input. It functions as a milliVolt shunt or high-voltage isolator.

This unit is primarily intended to measure and isolate dc voltages, but may also be used to monitor ac and non-sinusoidal waveforms. The output signal is a scaled replica of the input (ac input = ac output, etc.). For ac or bidirectional dc applications, a model with bidirectional output type must be used.

A wide variety of standard input ranges and output types are available. Consult factory for special ranges.

### FEATURES

- dc voltage measurement
- 2500Vac dielectric test
- Wide frequency range

### APPLICATIONS

- Accurate measurement and isolation of dc voltages.
- Shunt isolator



**5 YEAR  
WARRANTY**

## MODEL SELECTION

*INPUT (mV)	STANDARD OUTPUTS MODEL VT7-			
	0-±1mA	4-20mA	0-±10V	0-±5V
*0 - 50	015B	015E	015D	015X5
*0 - 100	016B	016E	016D	016X5
*0 - 200	017B	017E	017D	017X5
*0 - 250	018B	018E	018D	018X5
INPUT (Volts)	STANDARD OUTPUTS MODEL VT7-			
	0-±1mA	4-20mA	0-±10V	0-±5V
0 - 10	001B	001E	001D	001X5
0 - 25	002B	002E	002D	002X5
0 - 50	003B	003E	003D	003X5
0 - 100	004B	004E	004D	004X5
0 - 150	005B	005E	005D	005X5
0 - 250	006B	006E	006D	006X5
0 - 300	007B	007E	007D	007X5
0 - 400	008B	008E	008D	008X5
0 - 500	009B	009E	009D	009X5
0 - 600	010B	010E	010D	010X5
**0 - 700	011B	011E	011D	011X5
**0 - 800	012B	012E	012D	012X5
**0 - 900	013B	013E	013D	013X5
**0 - 1000	014B	014E	014D	014X5

\* Shunt inputs

\*\* Supplied with external divider box.

### Instrument Power Options

Option "-11" ..... 115Vac ±15%, 50/60Hz, 5VA

Option "-22" ..... 230Vac ±15%, 50/60Hz, 5VA

Options "-12", "-15", "-24", "-28", "-37", "-48" .....  
12Vdc thru 48Vdc, ±10%, 150mA max.

Standard models contain a universal switching power supply.

"-11" & "-22" models utilize a linear power supply.

### ORDERING INFORMATION

Example: 0-50mVdc Input with  
4-20mA Output and  
125Vdc Instrument Power  
**VT7-015E**

## SPECIFICATIONS

### INPUT

Voltage ..... (See Table)  
Frequency Range ..... dc-10kHz  
Overload  
0.05-600V models ..... 2XF.S. or 600Vac/850Vdc max.  
700V-1000V models (w/external divider box) ..... 1.25XF.S.  
Burden ..... >100kΩ

### DIELECTRIC TEST

Input/Output/Case ..... 2500Vac

### INSTRUMENT POWER

Standard ... 85-265Vac, 48-420Hz, 5VA or 110-370Vdc, 5VA  
"-11" option ..... 115Vac ±15%, 50/60Hz, 5VA  
"-22" option ..... 230Vac ±15%, 50/60Hz, 5VA  
"-12", "-15", "-24" options ..... 12, 15, or 24Vdc ±10%, 150mA max.  
"-28", "-37", "-48" options ..... 28, 37, or 48Vdc ±10%, 150mA max.

### OUTPUT

Type ..... (See Table)  
Response ..... (to 90%) ..... 50μs  
Loading  
"B" models ..... (0-1mA) ..... 0-10kΩ  
"D", "X5" models ..... (0-10, 0-5V) ..... >2kΩ  
"E" models ..... (4-20mA) ..... 0-500Ω  
Field Adjustable Cal. .... ±10%

### ACCURACY

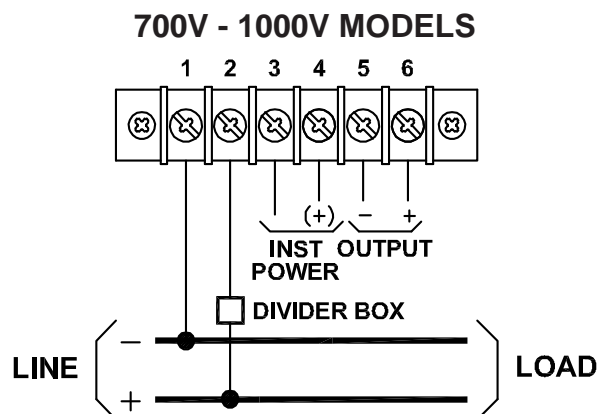
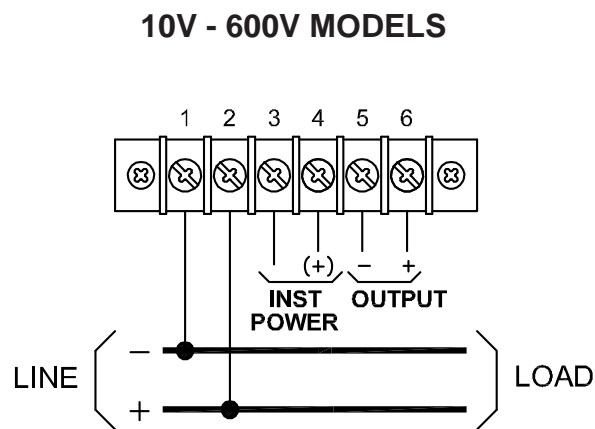
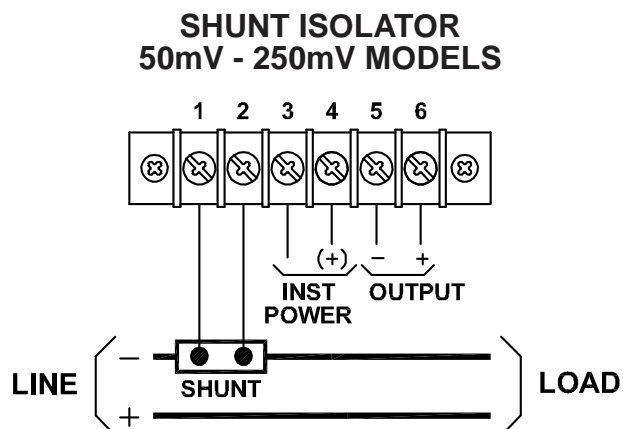
Includes effects of linearity, setpoint and repeatability.  
All Models ..... ±0.25% F.S.@ DC

### TEMPERATURE

Operating Range ..... -10°C to 60°C  
Effect ..... ±1.0% Rdg., ±0.1% F.S.

# OHIO SEMITRONICS, INC.

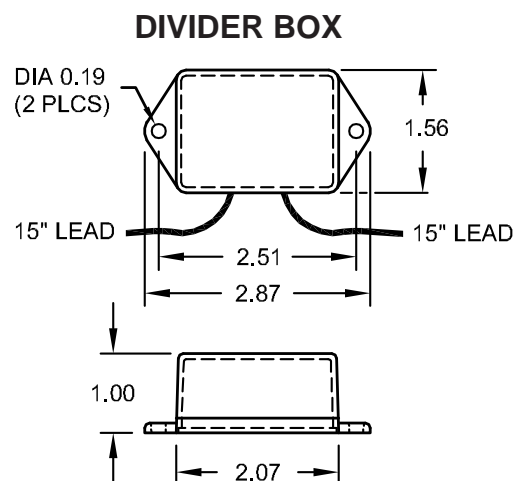
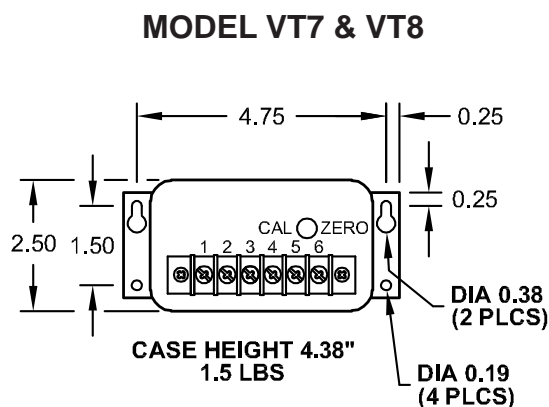
### CONNECTION DIAGRAMS



Dwg# 0902-00847-B Rev B

Note: All models above 600V input require a divider box in series with the input terminal #2.  
Do not connect the input voltage directly! Damage to the VT7 will result if not properly connected.

### CASE DIMENSIONS



All dimensions in inches

Dwg# 0902-00847-B Rev B