

# OSI DC & RMS VOLTAGE TRANSDUCERS MODELS VT7- & VT8-

## DC TO 10KHZ FREQUENCY RANGE

### DESCRIPTION

The **Model VT7 Series** (DC) voltage transducer produces an output which is directly proportional to the input from DC to 10kHz. It functions as a millivolt dc shunt or a high-voltage isolator.

The **Model VT8 Series** (RMS) voltage transducer provides a DC output directly related to the true RMS value of the input over the DC to 10kHz frequency range. Inputs range from 50mV to 1000V. Input/output dielectric test of 2500Vac. Consult factory for special ranges.

### FEATURES

- 2500Vac dielectric test
- Wide frequency range
- VT8 Provides a DC output which is proportional to the RMS value of the AC/DC input.



### APPLICATIONS

- Accurate measurement of DC and nonsinusoidal AC components.
- Shunt isolator

**5 YEAR WARRANTY**

* INPUT mV	STANDARD OUTPUTS MODEL VT7- or VT8-			
	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- or VT8-			
	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

### ORDERING INFORMATION

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

### ORDERING INFORMATION

Example: 0-100Vac Input with  
0-10Vdc Output and 115Vac Instr. Pwr.  
**VT8-004D-11**

### Instrument Power Options

Option “-11” ..... 95-135Vac, 50/60Hz, 5VA

Option “-22” ..... 230Vac, 50/60Hz, 5VA

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

\* Shunt inputs

\*\* Supplied with external divider box.

\*\*\*Bidirectional (±) on VT7 Series

SAVE \$ “-11” & “-22” models utilize a low-cost linear power supply

## 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

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

### INSTRUMENT POWER

Standard 85-265Vac, 48-420Hz, 5VA or 110-370Vdc, 5VA  
“-11” option ..... 95-135Vac, 50/60Hz, 5VA  
“-22” option ..... 230Vac, 50/60Hz, 5VA  
“-12”, “-15”, “-24” options... 12, 15, or 24Vdc ±10%, 150mA max.  
“-37” or “-48” options ..... 37 or 48Vdc ±10%, 150mA max.

### OUTPUT

Response Time (to 90%F.S.)  
All VT7 Models ..... 50μs  
All VT8 Models ..... 100ms  
Loading  
“B” models ..... (0-1mAdc) ..... 0-10kΩ  
“D”, “X5” models ..... (0-10, 0-5Vdc) ..... >2kΩ  
“E” models ..... (4-20mAdc) ..... 0-500Ω  
Field Adjustable Cal. .... ±10%

### ACCURACY

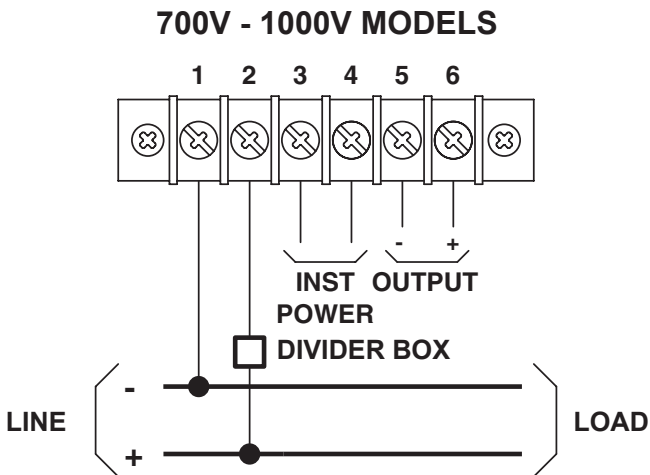
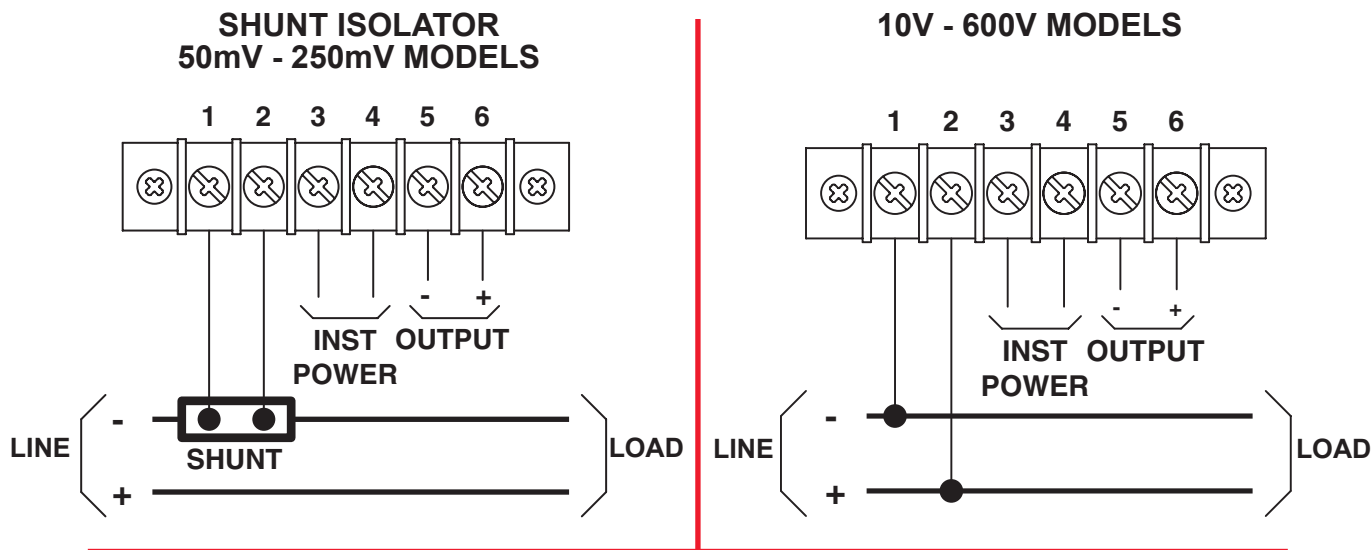
Includes effects of linearity, setpoint and repeatability.  
All VT7 Models ..... ±0.25% F.S. @ DC  
All VT8 Models ..... ±0.25% F.S. @ 48-420Hz

### TEMPERATURE

Effects...(-10°C to +60°C) ..... ±1.0% Rdg.

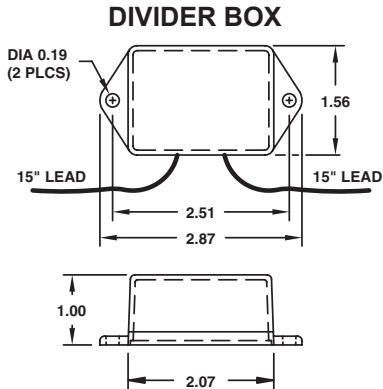
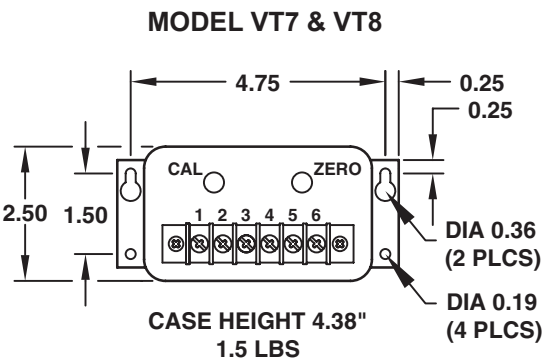
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**CONNECTION DIAGRAMS**



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 VT7/8 will result if not properly connected.

**CASE DIMENSIONS**



All dimensions in inches