

# 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 1000 volts. Input/output dielectric test of 2500Vac. Consult factory for special ranges.

### FEATURES

- 2500 Vac 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 non-sinusoidal ac components.
- Shunt isolator

**5 YEAR WARRANTY**

* INPUT mV	STANDARD OUTPUTS MODEL VT7- or VT8-			
	***1mA	4-20mA	***10V	***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-			
	***1mA	4-20mA	***10V	***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  
4-20mA dc Output and  
125Vdc Instr. Pwr.  
**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” 230 Vac, 50/60Hz, 5VA,  $\pm 15\%$
- Option “-12, -15, -24, -37, -48”, 150mA max. 12Vdc thru 48Vdc,  $\pm 10\%$

\* Shunt inputs \*\* Supplied with external multiplier box.

\*\*\*Bi-directional ( $\pm$ ) on VT7 Series

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

## SPECIFICATIONS

### INPUT

Voltage ..... See Table  
Frequency Range ..... dc-10kHz  
Overload .. 0.05-600V ..... 2 X F.S. or 600Vac/850Vdc max.  
700V-1000V(w/external multiplier box)... 1.25 X F.S.  
Burden (Ohms) ..... > 100K  
Dielectric Test.....(Direct Input/Output/Case) ..... 2500Vac  
Inst. Power ..... 85-265Vac, 48-420Hz, 5VA or 110-370Vdc, 5VA  
See available instr. pwr. options  
Temperature Effects...(-10°C to +60°C) .....  $\pm 1.0\%$  Rdg.  
Field Adjustable Cal. ....  $\pm 10\%$

### OUTPUT

#### ACCURACY

Includes effects of linearity, setpoint and repeatability.

VT7 Models .....  $\pm 0.25\%$  F.S. @ DC  
VT8 Models .....  $\pm 0.25\%$  F.S. @ 48-420Hz

#### Response Time

VT7 Models ..... (to 90%) ..... 50 microseconds  
VT8 Models ..... (to 90%) ..... 100 milliseconds

#### Output Loading (Ohms)

1mA ..... 0-10K  
10V, 5V ..... > 2K  
20mA ..... 0-500

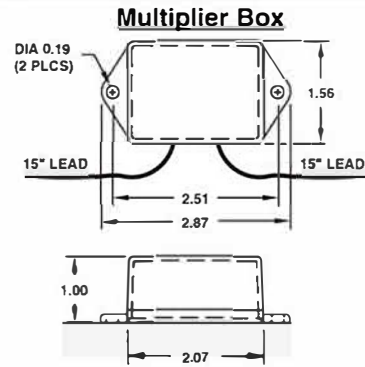
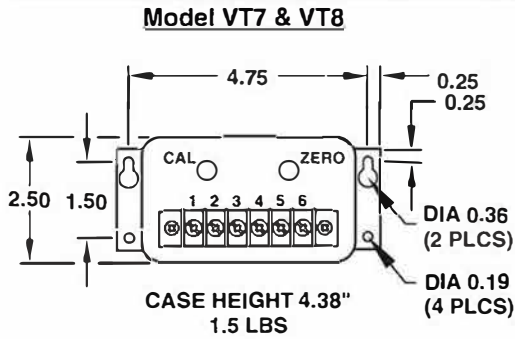
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**CASE DIMENSIONS & CONNECTIONS** MODELS VT7- & VT8-

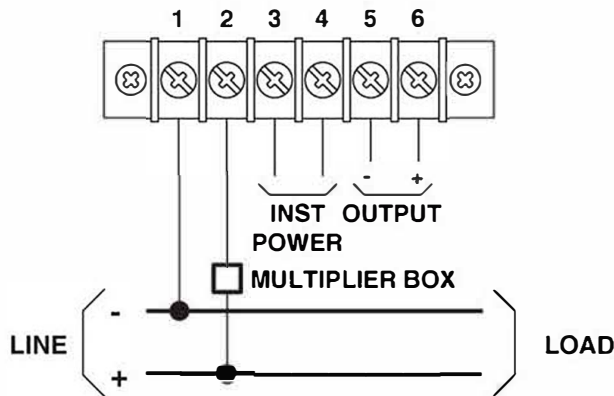
**CASE DIMENSIONS**



All Dimensions In Inches

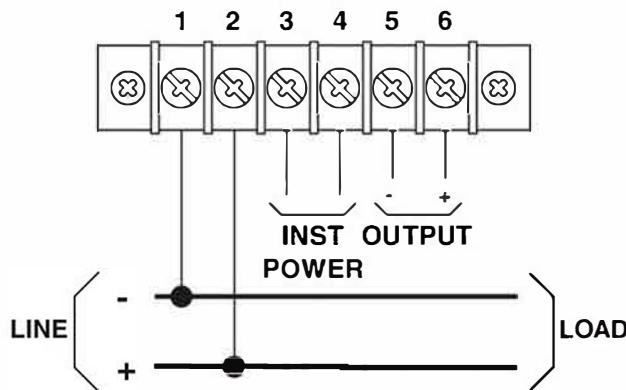
**CONNECTION DIAGRAMS**

**700V - 1000V Models**



Note: All models above 600V input require a multiplier 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.

**10V - 600V Models**



**Shunt Isolator**

**50mV - 250mV Models**

