

# WATT TRANSDUCERS

## DC SHUNT WATT TRANSDUCER

MODEL MT

### DESCRIPTION

The MT Series of Transducers were designed as a Watt Transducer capable of multiplying two individual DC voltage signals to provide an output directly proportional to the instantaneous product of the two input signals.

One input is dedicated to a low level voltage, (a 50 or 100mV shunt) and the other voltage input is normally in the range of 1 to 750V dc.

Each input is isolated from each other and the output by 1000V dc. A model selection table is provided below with a list of standard inputs and outputs.



### MODEL SELECTION

<p><b>MT-</b> <input type="checkbox"/></p> <p><b>INPUT ONE (SHUNT)</b></p> <p>(1)=50MV (2)=100MV (3)=1V (4)=5V (5)=10V</p> <p>(SHUNTS AVAILABLE - SEE PAGE 165)</p>	<p>- <input type="checkbox"/></p> <p><b>INPUT TWO (VOLTAGE)</b></p> <p>(01)=1V (02)=5V (03)=10V (04)=25V (05)=50V (06)=100V (07)=150V (08)=250V (09)=300V (10)=400V (11)=500V (12)=750V</p>	<p><input type="checkbox"/></p> <p><b>OUTPUT</b></p> <p>(B)=1mA (D)=10V (E)=4-20mA (EA)=0-20mA</p>	<p><input type="checkbox"/></p> <p><b>INST PWR</b></p> <p>BLANK=115V AC (G)=220V 50/400Hz (24)=24V dc +/-15% (28)=28V dc +/-15% (37)=37V dc +/-15% (48)=48V dc +/-15%</p>
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#### ORDERING INFORMATION

Example: Model MT-1-06B has inputs of 50 millivolts and 100V with an output of 1mA.

### MODEL MT SPECIFICATIONS

#### INPUTS

Input One (Current) from MV shunt ..... See Table  
 Burden on Input ..... >100K Ohms  
 Overrange ..... 2 Times Rated Input  
 Input Two (Voltage)..... See Table

Burden on Input .. (1V to 100V) ..... 100K Ohms  
 ..... (150V to 300V) ..... 500K Ohms  
 ..... (400V to 750V) ..... 1MOhms  
 Overrange ..... 2 Times Rated Input  
 ..... Or 1000 Volts Whichever is Smaller  
 Frequency ..... dc  
 Isolation ..... Inputs to Output ..... 1000Vdc  
 Inputs/Output to Inst Pwr 1500V AC  
 Instrument Power ..... 90 to 135V, 50-400 HZ  
 Option "G" ..... 180 to 270V, 50-400 HZ

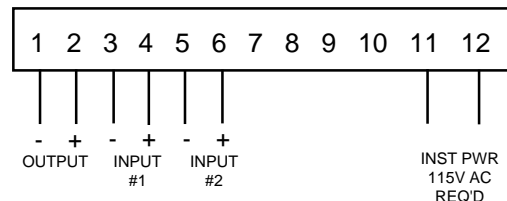
#### OUTPUT

..... See Table  
 Load on Output  
 (1mA) ..... 0 to 10K  
 (10V) ..... 2 K Ohms to infinite  
 (20mA) ..... 0 to 500 Ohms  
 Response Time to 90% ..... 10 Milliseconds  
 Ripple .....  $\leq \pm 1\%$  FS

**Temperature Effects...**(-20°C to +65°C) .....  $\pm 0.2\%$ /Deg C

**ACCURACY AND LINEARITY** .....  $\pm 0.5\%$  F.S.  
 (Including Set Point Repeatability, Voltage & Current Linearity)

### CONNECTIONS



### DIMENSIONS

