

OSI MULTIPLIER (DC OR AC WATT TRANSDUCER) MODEL MT-

SHUNT INPUT



DESCRIPTION

The MT Transducer provides an output signal which is directly proportional to the instantaneous product of two input signals. Each input and the output are isolated from one another up to 1000 Volts dc. The MT series should be used where two process quantities must be multiplied to obtain a useful quantity. For example, a shunt output may be multiplied with the system voltage to obtain dc power delivered to a load. The multiplier provides full four-quadrant operation so signals that may change polarity during operation may be accurately multiplied.

CALIBRATION

All standard models are calibrated at the factory with the values listed below in the Model Selection Table. For instance, the model MT-1-06B would be calibrated with inputs of 50mV and 100 Volts for a full-scale output of 1mA. To compute the power when using a 50mV shunt, multiply the current value of the shunt times 100V. In the case where the shunt equals 1000A, multiply 1000 times 100 for an output of 1mA which equals 100 kilowatts. EXAMPLE: 50mV (Shunt Value) X 100V = 1mA Full-Scale Output

MODEL SELECTION

MODEL MT — —

5 YEAR WARRANTY

INPUT 1 (SHUNT)		INPUT 2 (VOLTAGE)		OUTPUT		INSTRUMENT POWER		FREQUENCY	
1	50mV	01	1V	B	1mA dc	Blank	115Vac	Blank	dc
2	100mV	02	5V	D	10V dc	G	230Vac	AC	60Hz
3	1V	03	10V	E	4-20mA dc				
4	5V	04	25V	EA	0-20mA dc				
5	10V	05	50V						
		06	100V						
		07	150V						
		08	250V						
		09	300V						
		10	400V						
		*11	500V						
		*12	750V						

* dc only

ORDERING INFORMATION

Example: Input 1 = 0-50mV,
Input 2 = 0-100Vdc,
with 0-10Vdc Output.

MT-1-06D

SPECIFICATIONS

INPUT

Input One..... (Shunt) See Table
 Burden >100kΩ
 Over-range 2 X Rated Input
 Input Two (Voltage)..... See Table
 Burden (to 100V) 100kΩ
 (150V to 300V) 500kΩ
 (400V to 750V) 1MΩ
 Over-range 2 X F.S. or 600Vac/850Vdc max.
 Frequency Standard DC
 AC Option 50-70Hz

DIELECTRIC TEST

Inputs to Output 1000Vdc
 Inputs/Output to Instrument Power 1500Vac

INSTRUMENT POWER

Standard 90-135Vac, 50-400Hz, 7VA
 "G" Option 180-270Vac, 50-400Hz

OUTPUT

Load on Output..... 1mA 0-10kΩ
 10V ≥2kΩ
 20mA 0-500Ω
 Response Time to 90% DC Models 10ms
 AC Option 200ms

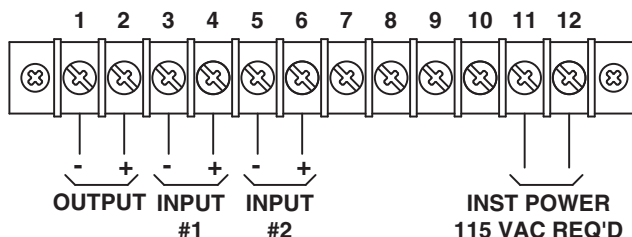
ACCURACY & LINEARITY

..... ±0.5% F.S.
 Including Set-point, Repeatability, Voltage & Current Linearity
 Ripple ±1% F.S.

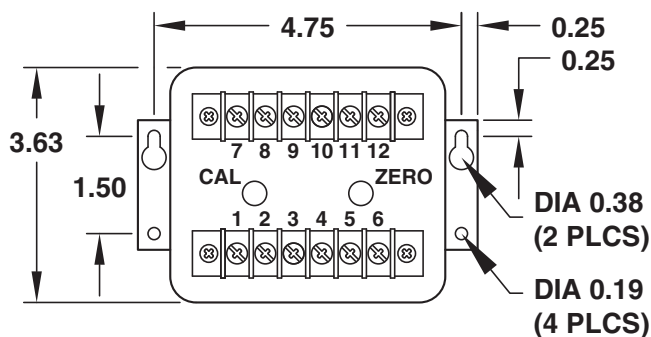
TEMPERATURE & PHYSICAL

Temperature Effect (-20°C to 65°C) ±0.02%/°C
 Net Weight 2.2 lb

CONNECTION DIAGRAM



CASE DIMENSIONS



CASE HEIGHT 5.50"

All dimensions in inches

Dwg# 0902-00882-B

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