

WATT TRANSDUCERS

DC TO 400HZ WATT TRANSDUCER

MODEL PC8

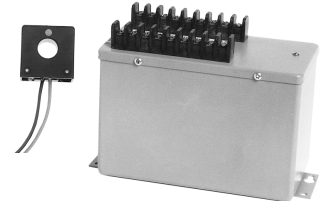
SINGLE PHASE DC TO 400 HERTZ

FEATURES

- Accurate from dc to 400 Hz., factory calibration traceable to NIST.
- 1000Vac Input/output isolation.
- Real-time indication of power
- Transient response **less than 50 microseconds**.

APPLICATIONS

- Accurate monitoring of power that contains dc and non-sinusoidal AC components.
- Ideal for use in SCR and other AC or dc switching circuitry.
- Bi-directional output.



SINGLE PHASE VARIABLE FREQUENCY (ONE ELEMENT)

INPUT VOLTAGE		INPUT CURRENT		SENSOR SIZE
RANGE	DESIGNATION	RANGE	DESIGNATION	
0- 25	001	0- 5	08	INTEGRAL
0- 50	002	0- 100	01	C
0-150	003	0- 200	02	D
0-300	004	0- 300	03	D
0-400	005	0- 400	04	D
0-500	006	0- 600	05	E
0-600	007	0-1000	06	E
		0-2000	07	E

STANDARD OUTPUTS MODEL PC8-				
+/- 1mA	+/- 10Vdc	4-20mA	4-12-20mA	+/- 5Vdc
ADD SUFFIX "B" TO PART NUMBER	ADD SUFFIX "D" TO PART NUMBER	ADD SUFFIX "E" TO PART NUMBER	ADD SUFFIX "EM" TO PART NUMBER	ADD SUFFIX "X5" TO PART NUMBER

Highlighted models, (5A), can be used with current transformers in 25 to 400 Hz applications.

All units require 85-135Vac instrument power, (50-400 Hz.).

Full scale power (Watts) can be determined by the product of full scale input voltage and full scale input current.

**OPTIONAL SPLIT-CORE CURRENT SENSOR AVAILABLE WITH UNITS OF 100 AMPS OR GREATER-ADD SUFFIX "S".
LOWER CURRENT RANGES AVAILABLE-CONSULT FACTORY**

ORDERING INFORMATION

Example: 150V, 100A Input with Split-Core Sensor and + 5Vdc Output, Proportional to 0-15000 Watts
PC8-003-01-X5S

MODEL PC8 SPECIFICATIONS

INPUT

Voltage See Tables
 Current See Tables
 Frequency Range dc to 400 Hz
 Power Factor Any
 Response (Transient 90%) 50 microseconds
 Burden (Ohms)
 Voltage Models under 50V >100K
 Models over 50V >1M
 Overload
 Voltage 2 X F.S. or 600Vac/850Vdc max.
 Current Using internal sensor 2 X F.S.
 Using sensors C, D, E 50 X F.S.
 Dielectric Test...(Input/Output/Case) 1000Vdc
 Surge Withstands IEEE SWC test

OUTPUT

ACCURACY + 1.0% F.S.
 Includes combined effects of voltage, current, load and power factor
 Output Ripple < 1.0% F.S. @ 60Hz
 Output Loading (Ohms)
 +1mA 0-10K
 4-20mA, 4-12-20mA 0-500
 +5Vdc, +10Vdc >2K
 Response Time...(90%) < 500 milliseconds
 Field Adjustable Cal. + 10%
 Temperature Range 0°C to +40°C
 Temperature Effect +1.0% of Rdg, +0.1% F.S. Output
 Instrument Power 85-135Vac, 50-400Hz, 10VA
 "-22" Option 230Vac, 50/60Hz, +15%

FLEX-CORE®

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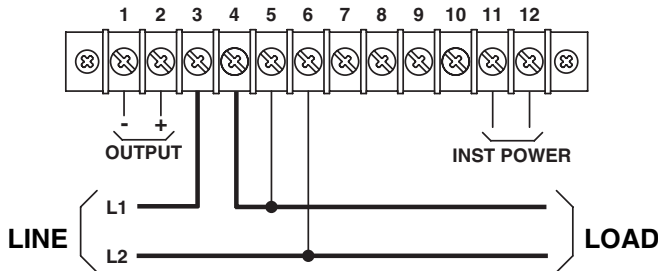
CONNECTION DIAGRAMS

MODEL PC8

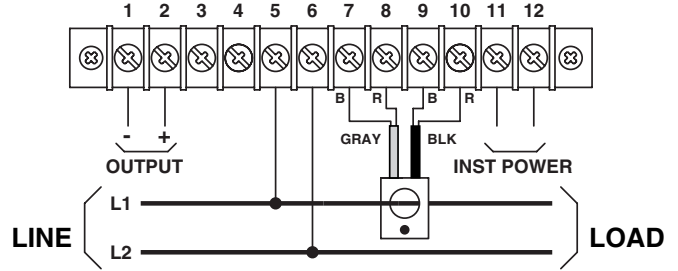
WATT TRANSDUCERS

SINGLE-PHASE VARIABLE FREQUENCY (ONE ELEMENT)

CONNECTIONS

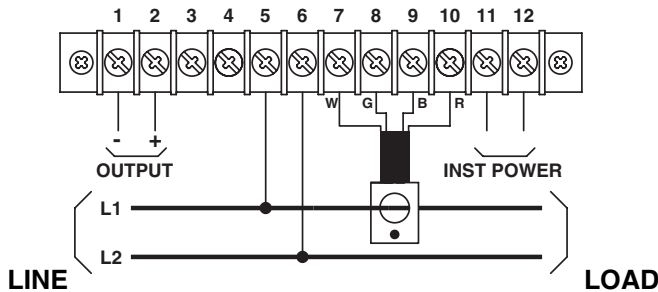


DIRECT CONNECTION USING INTERNAL SENSOR



CONNECTION USING EXTERNAL SENSOR WITH TWO CABLES.

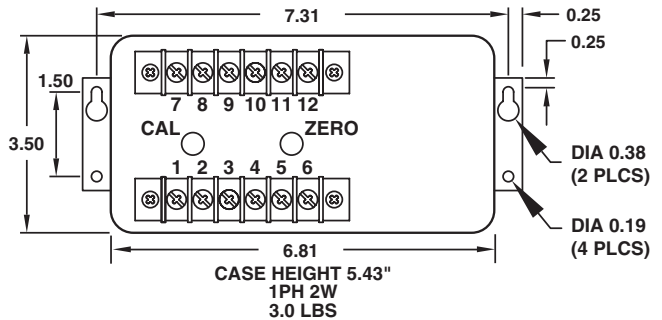
SENSOR CABLE SHIELD SHOULD BE CUT OFF.



CONNECTION USING EXTERNAL SENSOR WITH ONE CABLE.

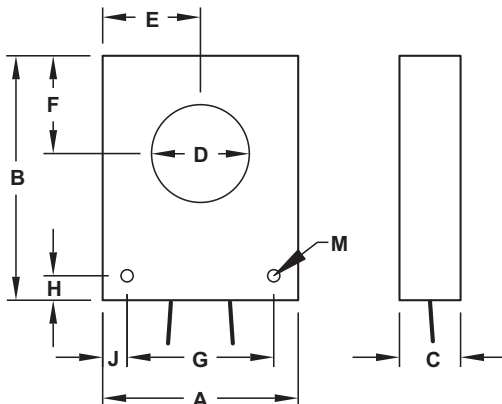
**WARNING: SHOCK HAZARD
CURRENT SENSOR TERMINALS
ARE AT LINE VOLTAGE.**

CASE DIMENSIONS



All Dimensions In Inches

SENSOR DIMENSIONS



SENS SIZE	SENSOR DIMENSIONS										WT. LBS.
	A	B	C	D	E	F	G	H	J	M	
C	2	2	3/4	3/4	1	7/8	1 1/2	1/4	1/4	5/32	0.28
D	3 1/8	4	3/4	1 1/8	1 9/16	1 1/2	2 1/8	1/2	1/2	11/64	0.75
E	4 1/8	5	1 1/4	2	2 1/16	2	3 1/4	7/16	7/16	17/64	2.80

All Dimensions in Inches

Solid-core models are supplied with 18 inch cables on sensor sizes C & D. All other solid-core models supplied with detachable 8 foot cable. Sensor size C split-core models are supplied with 8 foot attached cable. All other split-core models are supplied with detachable 8 foot cable. Longer cables are available.

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