

WATT TRANSDUCERS

DC TO 400HZ WATT TRANSDUCER

MODEL PC8

SINGLE PHASE DC TO 400 HERTZ

FEATURES

- Accurate from dc to 400Hz, 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)

PC8 - -

	INPUT VOLTAGE	INPUT CURRENT	SENSOR SIZE	OUTPUT OPTIONS
001	0-25V	08	0-5A (INTERNAL)	B 0 - ±1mAdc
002	0-50V	01	0-100A	C D 0 - ±10Vdc
003	0-150V	02	0-200A	D E 4 - 20mAdc
004	0-300V	03	0-300A	D EM 4 - 12 - 20mAdc
005	0-400V	04	0-400A	D X5 0 - ±5Vdc
006	0-500V	05	0-600A	E
007	0-600V	06	0-1000A	E
		07	0-2000A	E

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

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

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 400Hz
 Power Factor..... Any
 Response (Transient 90%) 50µs
 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 (Ω)
 ±1mAdc..... 0-10K
 4-20mAdc, 4-12-20mAdc 0-500
 ±5Vdc, ±10Vdc..... ≥2K
 Response Time....(90%) < 500ms
 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%

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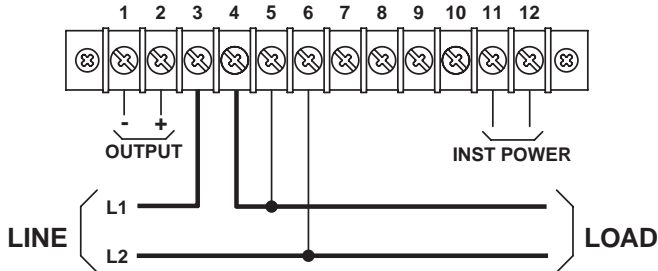
CONNECTION DIAGRAMS

MODEL PC8

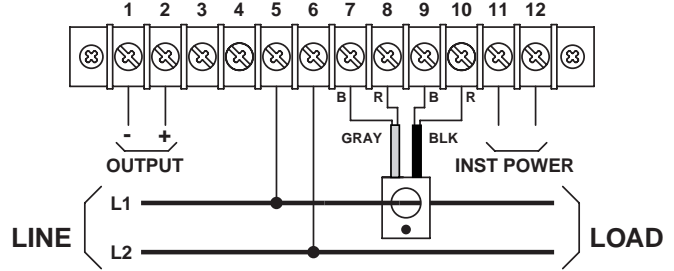
WATT TRANSDUCERS

SINGLE-PHASE VARIABLE FREQUENCY (ONE ELEMENT)

CONNECTIONS

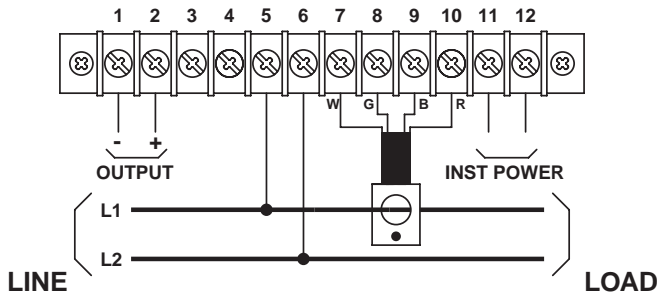


DIRECT CONNECTION USING INTERNAL SENSOR



CONNECTION USING EXTERNAL SENSOR WITH TWO CABLES.

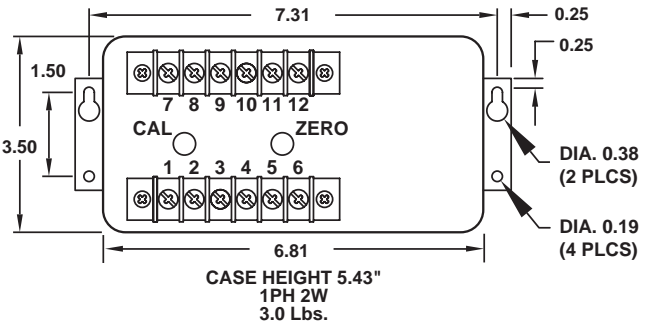
SENSOR CABLE SHIELD SHOULD BE CUT OFF.



CONNECTION USING EXTERNAL SENSOR WITH ONE CABLE.

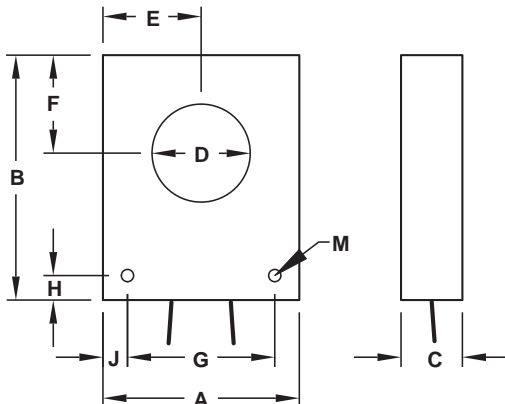
WARNING: SHOCK HAZARD
CURRENT SENSOR TERMINALS
ARE AT LINE VOLTAGE.

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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