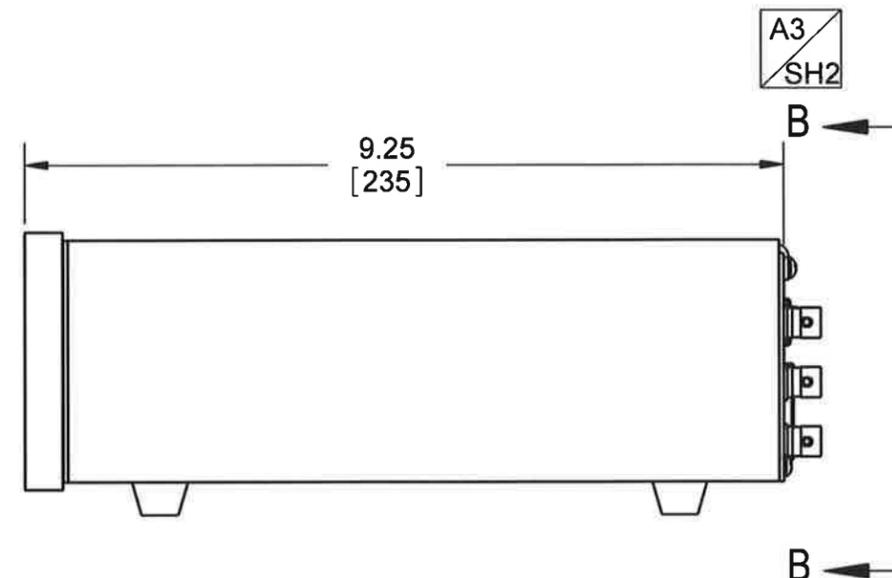
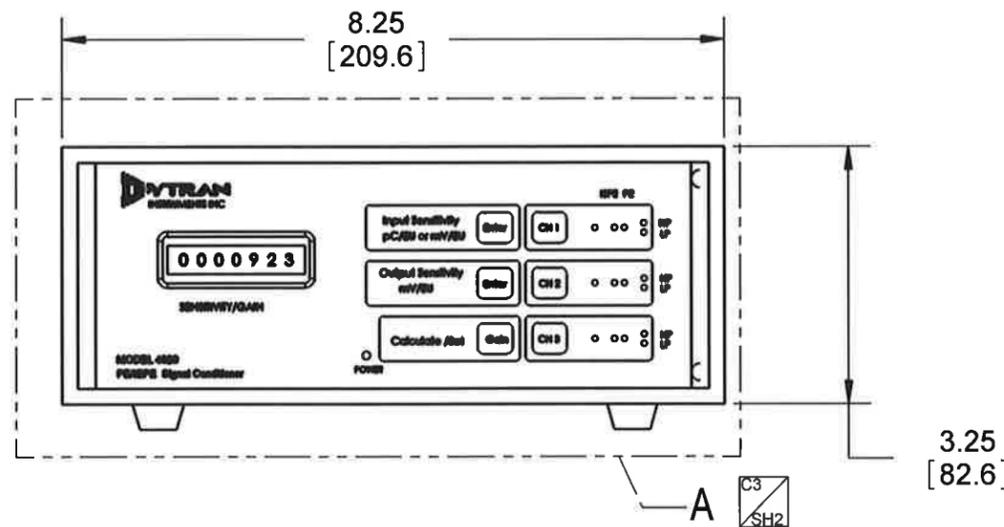
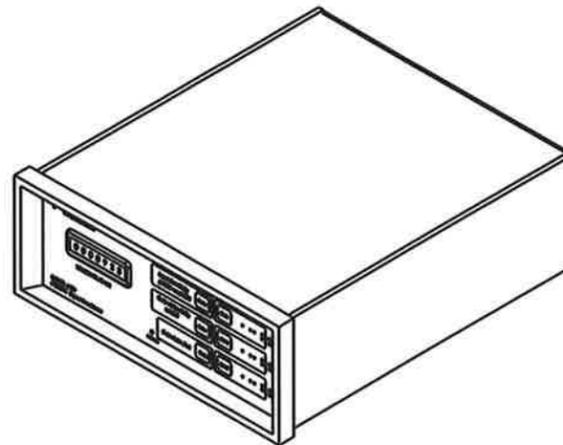


PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED

REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	8193	SEE ECN	LN 01/04/12	EP	DV
C	8606	ADDED NOTE 1	JS 05/04/12	RA	DV
D	10469	REVISED FRONT & REAR PANEL TO REFLECT ACTUAL UNIT	JS 10/17/13	RA	DV
E	13281	ADDED VIEW B-B, SHEET 2 OF 2, NOTE 2	RA, 02/27/17	JS 3/3	LN



UNLESS OTHERWISE SPECIFIED:
 INTERPRET DIM & TOL PER ASME Y14.5M - 1994.
 REMOVE BURRS.
 COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA.
 CHAM EXT THDS 45° TO MINOR DIA.
 THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS.
 DIMENSIONS APPLY AFTER FINISHING.

ALL MACHINED SURFACES.
 TOTAL RUNOUT WITHIN .005.
 BREAK SHARP EDGES .005 TO .010.
 MACHINED FILLET RADII .005 TO .015.
 WELDING SYMBOLS PER AWS A2.4.
 ABBREVIATIONS PER MIL-STD-12.

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES.
 DECIMALS TOLERANCES ARE:
 .XX ±.01
 .XXX ±.005
 ANGLES ±1°

APPROVALS		DATE
DRAWN		
DESIGN		
CHK	EP	11/23/11
APP	DV	11/23/11

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

MASTER COPY IF IN RED
 DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE: **OUTLINE/INSTALLATION DRAWING, MODEL 4020**

SIZE B	CAGE CODE 2W033	DWG NO 127-4020	REV E
SCALE: 1:4	PART NO: 4020	SHEET 1 OF 2	

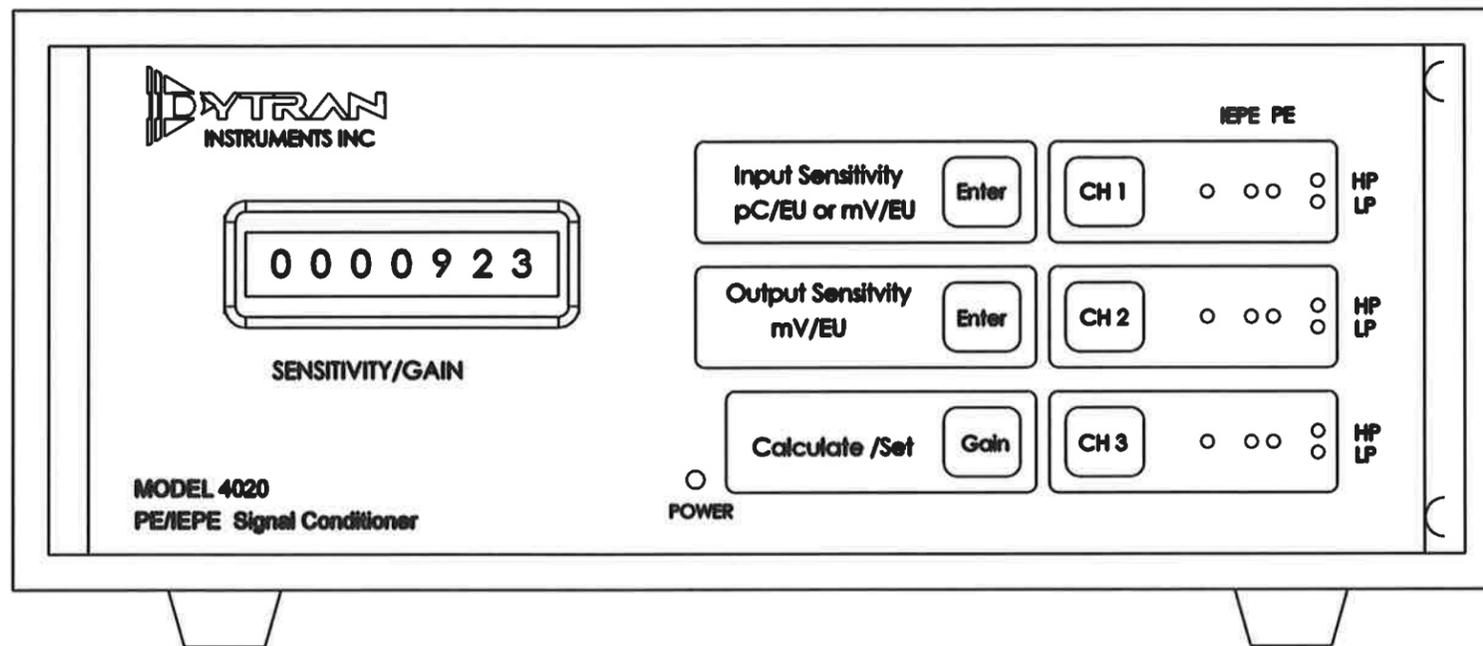
2. UTILIZES OPTIONAL 4-POLE HIGH PASS AND LOW PASS FILTER SERIES 4197A.

1 AC POWER CORD (NOT SHOWN) SUPPLIED.

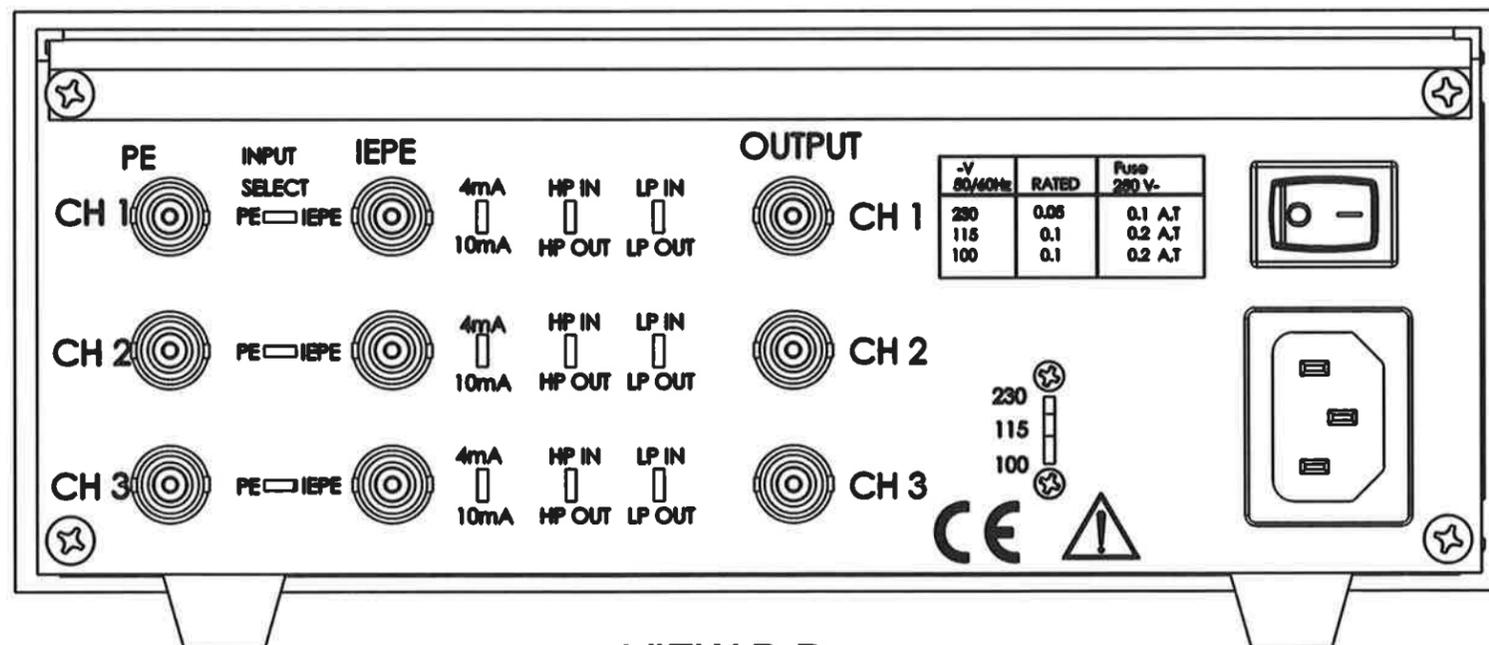
NOTES: UNLESS OTHERWISE SPECIFIED

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED



DETAIL A B3 / SH1



VIEW B-B C2 / SH1

MASTER
DYTRAN INSTRUMENTS, INC. Chatsworth, CA
ONLY IF IN RED

TITLE:
**OUTLINE/INSTALLATION
DRAWING, MODEL 4020**

SIZE B	CAGE CODE 2W033	DWG NO 127-4020	REV E
------------------	---------------------------	---------------------------	-----------------

SCALE: 1:1	PART NO: 4020	SHEET 2 OF 2
------------	---------------	--------------

Model Number 4020	PERFORMANCE SPECIFICATIONS	DOC NO PS4020
3-CHANNEL PE / IEPE SIGNAL CONDITIONER		REV E, ECN 13281, 03/01/17



- DESIGNED TO BE USED WITH PE / IEPE SENSORS
- INTEGRAL USER SELECTABLE CURRENT SOURCE

PHYSICAL

Weight, Max (with out power cord) 3.4 lbs
Case Material Iridited Aluminum

Input Specifications

Piezoelectric Single-ended with one side connected to signal ground
Maximum Charge Input ≤ 30000 pC
Source Resistance > 10 megohms
Source Capacitance <30000 pF
IEPE Single-ended with low side connected to signal ground
Constant Current Source None, 4mA or 10mA selectable per channel
Accuracy ± 15%
Compliance Voltage < 22 Vdc
Maximum Input Voltage < 220Volts (AC+DC)
Input Impedance 100 megohms and 33000 pF

Output Specifications

AC Voltage Single ended and referenced to signal ground. Signal proportional to input.
Linear Output 10 V peak, minimum
Output Current 10 mA, maximum
DC Offset 15 mV, maximum
Protection Short circuit protected

Transfer Characteristics

Gain Range 0.00 to 999.9
Resolution 0.0025, 0 ≤ gain <10
0.025, 10 ≤ gain <100
0.25, 100 ≤ gain <1000
Accuracy ±0.5% at 1kHz with filters disabled and gain > 1
Sensitivity (pC/EU or mV/EU) 0.00 to 9999
Resolution Determined by gain resolution
Linearity 0.1% of Full Scale, best fit straight line at 1kHz reference
Noise with standard 10kHz 4-pole Butterworth low pass filter installed [3]
Piezoelectric 0.02 pC rms + 0.006 Pc rms per 100 pF of source capacitance RTI + 1mV rms RTO
IEPE 20 uV rms RTI +400 uv rms RTO. Input shunted with a 249 Ohm (4mA exc) or 100 Ohm (10mA exc) load
Broadband Frequency Response ± 5%, 0.1Hz to 50kHz, reference to 1kHz. -3db at 100KHz, typical
Filter Characteristics - Built In: Single Pole RC High Pass
- Optional: [3]
Corner Frequency (-3db) 10Hz ± 5% and 10kHz ± 12%
Crosstalk between channels 80db RTI, minimum

Environmental Specification

Operating Temperature 0 to +50 °C
Humidity 95% RH, Non-Condensing

Rear Panel Selectable Functions (per channel)

Input Type Charge or IEPE
Excitation Current (Isotron Only) 4mA or 10mA
Filter [3] HP (High Pass) and LP (Low Pass)

Front Panel Programmable Functions (per channel)

Sensitivity (pC/EU or mV/EU) 0.01 to 99.99
100.0 to 999.9
1000 to 9999
Output Scaling (mV/EU) 0.01 to 99.99
100.0 to 999.9
1000 to 9999
Gain (Calculated) 0.00 to 999.9
Gain (front panel adjustable) 0.00 to 999.9
Memory Serial EEPROM (1K bits)

Power Requirements

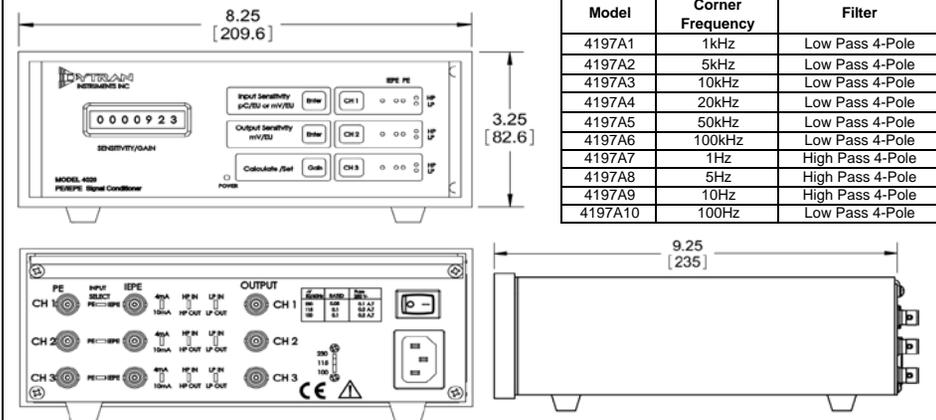
Voltage 100/115/230 Vac rear panel switch selectable, 50-60Hz
Isolation No isolation channel to channel or signal ground to case ground
Isolation No isolation channel to channel or signal ground to case ground

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Power Cord, 6 FT.

Notes:

- [1] In the interest of constant product improvement, we reserve the right to change specifications without notice.
[2] Model 4020 has been CE tested for compliance to EN61326-1:2013 for EMC Emissions and Immunity, EN55011:2003/A1:2010 for Radio Frequency Disturbance and EN61010-1:2010 for Product Safety.
[3] Optional filters available for purchase under 4197A Series. See table for corner frequency options



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-4020 for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com
For permission to reprint this content, please contact info@dytran.com