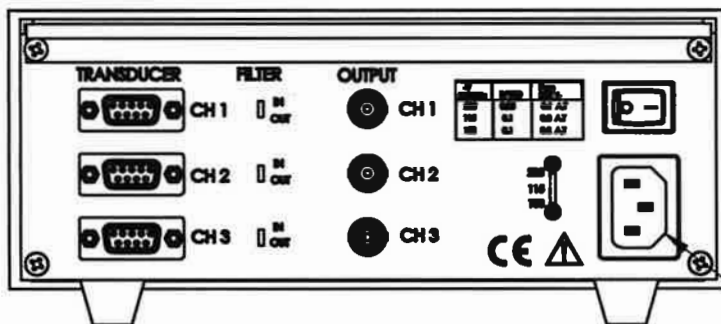


**PROPRIETARY AND CONFIDENTIAL**

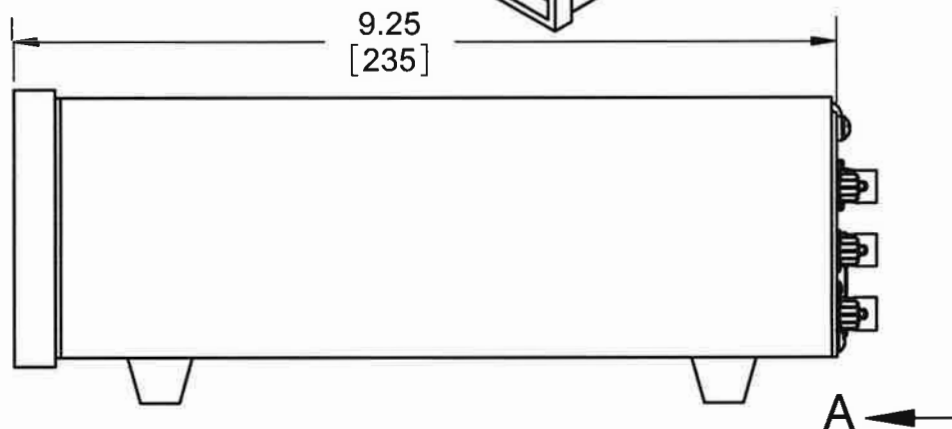
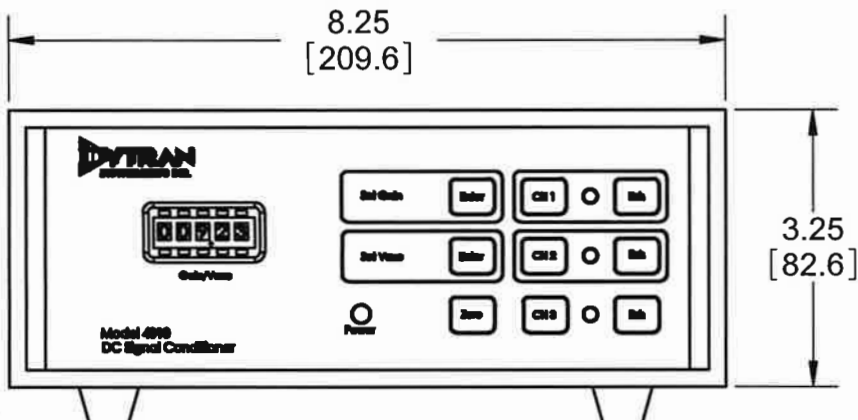
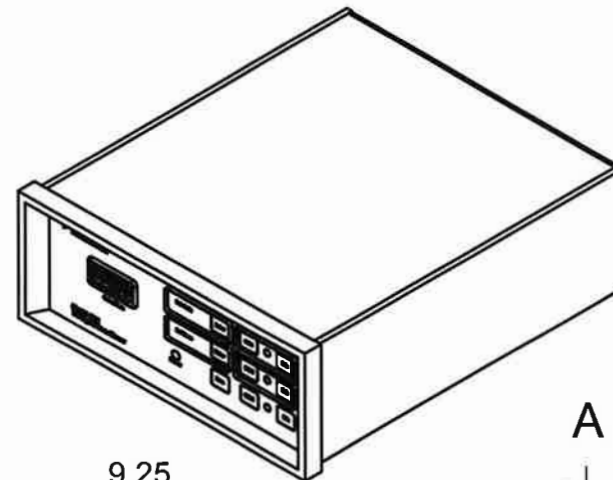
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	8606	ADDED NOTE 1	JS 05/04/12	RA	ANS
C	10469	REVISED FRONT & REAR PANEL TO REFLECT ACTUAL UNIT	JS 10/17/13	RA	DV



**VIEW A-A**



1 AC POWER CORD (NOT SHOWN) SUPPLIED.  
NOTES: UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
APPLICATION	
THIRD ANGLE PROJECTION USA	

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.  
THDS PER MIL-S-7742.  
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.  
DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS  
TOLERANCES ARE:  
INCHES METRIC ANGLES  
.XX ± .03 X ± 0.8 ± 1°  
.XXX ± .010 .XX ± 0.25

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.		
APPROVALS		DATE
ORIG	JS	06/08/10
CHK	EP	11/22/11
APP	DV	11/28/11
APP	DV	11/4/13

**DYTRAN INSTRUMENTS, INC.** Chatsworth, CA

**MASTER COPY**

TITLE: **OUTLINE/INSTALLATION DRAWING DC SENSOR SIGNAL CONDITIONER, MODEL 4010**

SIZE	CAGE CODE	DWG. NO.	REV
<b>A</b>	<b>2W033</b>	<b>127-4010</b>	<b>C</b>

SCALE: NONE      SOLIDWORKS      SHEET 1 OF 1

Model Number  
4010

## PERFORMANCE SPECIFICATIONS

DOC NO  
PS4010

3 Channel DC Signal Conditioner Amplifier

REV C, ECN 9669, 03/05/13



- DESIGN TO BE USED WITH BRIDGE TYPE OR DIFFERENTIAL ACCELEROMETERS AND PRESSURE TRANSDUCERS
- VARIABLE GAIN ADJUSTMENT
- SHUNT CALIBRATION CAPABILITY
- MULTIPLE EXCITATION LEVEL SETTINGS

### 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 4010 has been CE tested for compliance to EN61326 for EMC emissions and immunity and EN61010-1:2001 for Product Safety.

### PHYSICAL

Weight, Max (with out power cord)

3.4 lbs.

Case Material

Iridited Aluminum

### Input Specifications

Input Range, Differential  
Input Impedance, Minimum  
Common Mode Input Range  
Common Mode Rejection

0 to  $\pm 10$  Vdc or peak Vac, 9-pin D-sub connector for each bridge sensor  
>1 Megohm  
 $\pm 10$  Vdc or peak Vac, inclusive of signal 50V peak without damage  
70db minimum, 200 $\Omega$  or less imbalance, DC to 60kHz, gain>100  
20db minimum, 200 $\Omega$  or less imbalance, DC to 60kHz, gain=1

Autozero Adjustment Range

$\pm 10$  mVdc for gain <1000  
 $\pm 100$  mVdc for gain  $\leq 100$   
 $\pm 1$  mVdc for gain  $\leq 10$   
 $\pm 10$  mVdc for gain <1

Autozero Accuracy

Within  $\pm 50$  mV

### Output Specifications

AC/DC Voltage  
Output Impedance, Maximum  
Linear Output  
Current Output, Minimum  
Output DC Bias Temp Stability  
Output DC Bias Time Stability  
Excitation Voltage  
Excitation Voltage Accuracy  
Excitation Current  
Noise & Ripple

Single ended, short circuit protected, isolated from power ground  
0.2 $\Omega$   
10 Vpeak  
10mA  
 $\pm 5$  uV/ $^{\circ}$ C RTI or  $\pm 0.1$  mV/ $^{\circ}$ C RTO whichever is greater  
 $\pm 20$  uV RTI or  $\pm 5$  mV RTO whichever is greater for 24 hrs., after 1hr. warm-up  
0 to 12 Vdc, front panel selectable for each channel  
 $\pm 1\%$  (0 to 10 Vdc),  $\pm 5\%$  (12 Vdc)  
30mA maximum per channel, short circuit protected  
1mVrms maximum, 10 Hz to 50 kHz, with 1kohm load

### Transfer Characteristics

Gain Range  
Resolution

0.00 to 999.9  
For  $0 \leq \text{gain} < 10$ , 0.00 to 9.99  
For  $10 \leq \text{gain} < 100$ , 10.00 to 99.99  
For  $100 \leq \text{gain} < 1000$ , 100.00 to 999.9

Accuracy  
Linearity  
Noise

$\pm 5\%$  of full scale (max), DC to 1kHz, filters disabled  
 $\pm 0.1\%$  of full scale, best fit straight line at 1kHz reference  
20 uVrms RTI plus 1mVrms RTO, whichever is greater DC to 50kHz, with a 1kohm source resistance unit (with 10kHz internal low pass filter enabled)

Frequency Response  
Filter

DC to 150kHz (full power bandwidth), -3db referenced to 1kHz  
Plug in module (optional)

Crosstalk Between Channels

80 db RTI

### Power Requirements

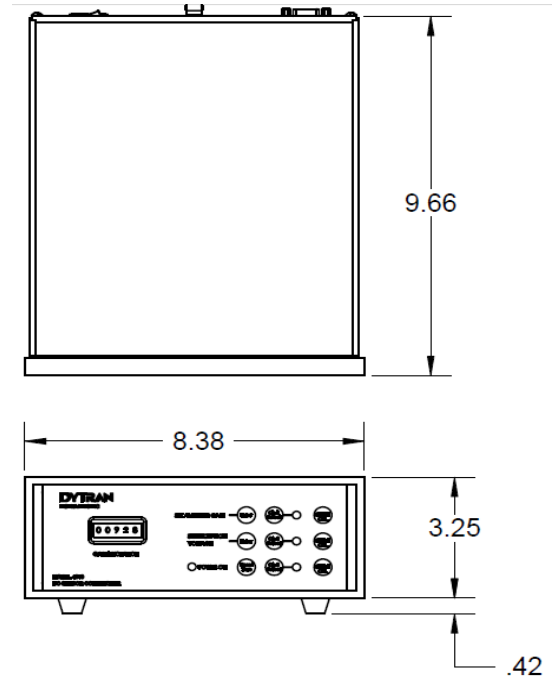
Voltage  
Current  
Isolation

100/115/ 230V  $\sim$ , 50/60 Hz, rear panel switch selectable  
0.1/0.1/0.05 A  
No isolation channel to channel or signal ground to case around

### Environment Specification

Operating Temperature  
Humidity

0 to +50  $^{\circ}$ C  
95% RH, Non-Condensing



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-4010 for more information.



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