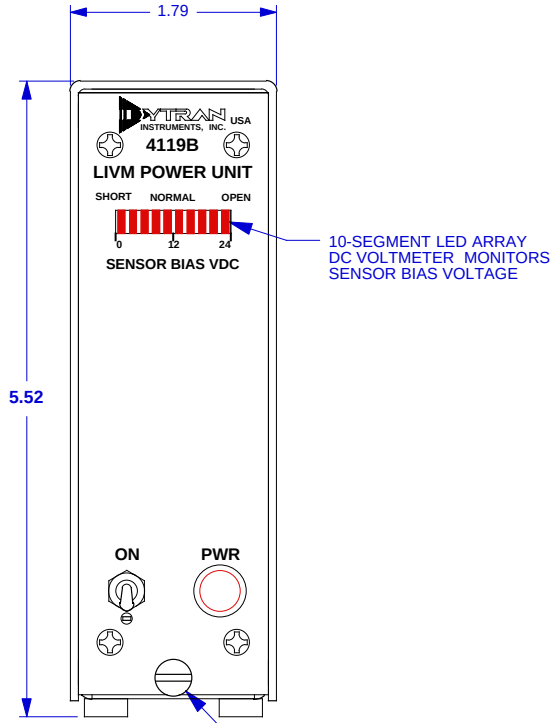
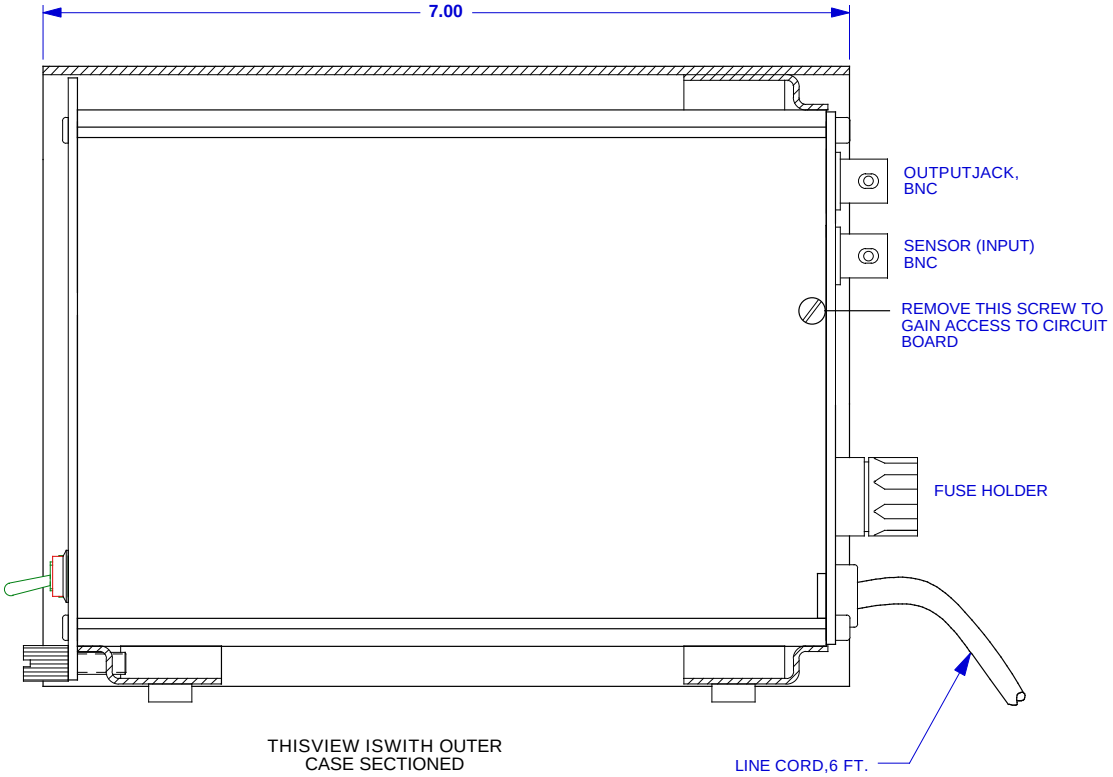
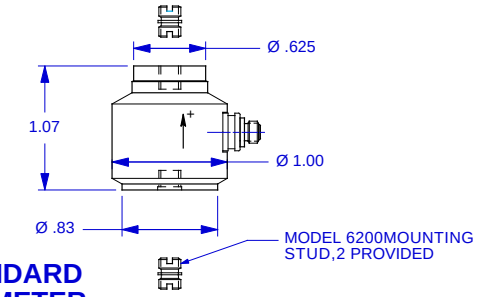


4119B POWER UNIT



THISVIEW ISWITH OUTER
CASE SECTIONED



3120B STANDARD ACCELEROMETER

DYTRAN INSTRUMENTS, INC.				CHATSWORTH, CA.	
SCALE 1X	REV -	DATE -	ECN -		
DATE 1/28/00	PART NO. MODEL 3120BK				
DRAWN N.C.	CHECKED R.A.	MAT'L			
APPROVED	NEXT ASSEMBLY		USED ON		
TITLE OUTLINE/INSTALLATION DRAWING, SYSTEM MODEL 3120BK			DWG NO. 127-3120BK		
			SHEET 1 OF 1		

Model Number 3120BK	PERFORMANCE SPECIFICATION	DOC NO PS3120BK
	IEPE ACCELEROMETER BACK-TO-BACK CALIBRATION SYSTEM	REV B , ECN 15133, 06/20/19

- **SYSTEM FOR BACK-TO-BACK CALIBRATION**
- **EXCELLENT LINEARITY**

	ENGLISH		SI	
PHYSICAL (SENSOR)				
Weight, Max (Accelerometer)	3.0	oz	85	grams
Connector	10-32 Coaxial		10-32 Coaxial	
Mounting Provision Top and Bottom Tapped Holes	10-32		10-32	
Material (Non-magnetic) Housing and Connector	300 Series Stainless Steel		300 Series Stainless Steel	
Element Style	Planar Shear		Planar Shear	
PHYSICAL SPECIFICATIONS (AMPLIFIER/POWER UNIT)				
Weight, Max (Amplifier / Power Unit)	32	oz	900	grams
Sensor/Output Connector	BNC/BNC Coaxial		BNC/BNC Coaxial	
Power cord	6FT 3-Wire w/ Chassis GND		6FT 3-Wire w/ Chassis GND	
Size (H x W x D) [6]	5.5 x 1.6 x 8.0	inches	140 x 41 x 203	mm
Temperature Range	0 to +120	°F	-18 to 48	°C
SYSTEM SPECIFICATIONS				
System Sensitivity, ± 5% @ 100 Hz [4]	10	mV/G	1.02	$mV/m/s^2$
Frequency Response, ±2% [4]	10 to 10,000	Hz	10 to 10,000	Hz
Linearity	±1	% F.S.	±1	% F.S.
Range F.S. for 5V Out	±500	G	±4905	m/s^2
Operating Force Range [5]	±40	Force-lb	±178	N
Equivalent Electrical Noise, (Broadband)	0.02	Grms	0.20	m/s^2 rms
Output Impedance	2	Ohms	2	Ohms
Input Voltage, Power Unit/Sensor	115 / 2.4	Vac / VA	115 / 2.4	Vac / VA
Filter, Low Pass, Active	12	dB/octave	12	dB/octave
Sensor Supply Voltage	+20	VDC	+20	VDC
Sensor Supply Current	2 to 5	mA	2 to 5	mA
ACCELEROMETER MODEL 3120B SPECIFICATIONS				
Sensitivity, ±5% [1]	10	mV/g	1.02	$mV/m/s^2$
Discharge Time Constant	0.5 to 1.5	Sec	0.5 to 1.5	Sec
Coefficent of Thermal Sensitivity	0.03	% / °F	0.05	% / °C
Range F.S	50	g	491	m/s^2
Frequency Response, ±6%	0.4 to 10,000	Hz	0.4 to 10,000	Hz
Resonant Frequency	>40	kHz	>40	kHz
Equivalent Electrical Noise Floor, Max	0.003	Grms	0.03	m/s^2 rms
Transverse Sensitivity, Max	3	%	3	%
Strain Sensitivity @ 250με	0.002	g/με	0.02	$m/s^2/\mu\varepsilon$
Output Impedance	<100	Ohms	<100	Ohms
ENVIRONMENTAL (SENSOR)				
Shock Max	3000	G pk	29430	m/s^2
Vibration Max	1000	G	9810	m/s^2
Temperature Range	-60 to +200	°F	-51 to +93	°C
Seal	Epoxy		Epoxy	
ELECTRICAL (SENSOR)				
Supply Current Range [3]	2 to 20	mA	2 to 20	mA
Compliance Voltage Range	+ 18 to +20	VDC	+ 18 to +20	VDC
Bias Voltage	7.5 to 9.5	VDC	7.5 to 9.5	VDC

This family also includes:

Model	Sensitivity (mV/g)	Frequency Response (Hz)	Time Constant (Sec)	Operating Temp (°F)

Refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

1) Accredited calibration certificate (ISO 17025)
2) Model 6200 Mounting Studs, qty 2
3) Model 6201 Mounting Stud, qty 1
4) Model 6213 Adhesive Mounting Base, qty 1

Notes:

[1] Measured at 100 Hz, 1 Grms per ISA RP 37.2

[2] Measured using zero-based straight line method, % of F.S. or any lesser range.

[3] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.

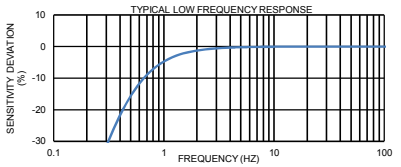
[4] System calibrated at factory with **NIST** traceable transfer standard accelerometer weighing 19 grams. NIST traceability number supplied with each system calibration.

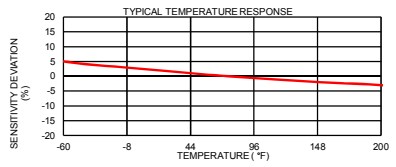
[5] Force pound range = product of weight of test accelerometer x G level.

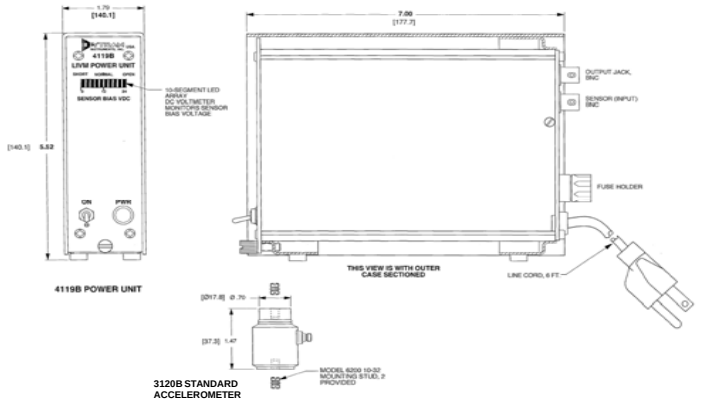
[6] Mounts in available Model 4200 19-inch wide equipment rack. Up to 10 units fit in one rack.

[7] In the interest of constant product improvement, we reserve the right to change specifications without notice.

It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.







Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3120BK for more information.

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