

SPECIFICATIONS

SENSITIVITY-MODEL 3191A	5 VOLTS/G
SENSITIVITY-MODEL 3191A1	10 VOLTS/G
FREQUENCY RANGE, +/- 5%	.1 to 1000 Hz
SUPPLY CURRENT	2 to 20 mA
SUPPLY VOLTAGE	+18 to +30VDC
TEMPERATURE RANGE	-65° to +175°F
WEIGHT	760 GRAMS

10SL-4P 2-PIN CONNECTOR

SEALING BOOT TOWER

3.64

Ø1.98

Ø1.69

1/4-28 TAPPED MOUNTING HOLE

6176 1/4-28 MOUNTING STUD, STEEL (SUPPLIED)



Presented by: Absolute Gauge Technologies
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 Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008

DYTRAN INSTRUMENTS, INC.		MASTER ONLY IF IN RED		CHATSWORTH, CA.	
SCALE	1X	REV	A	DATE	2/22/05
DATE	12-14-95	PART NO.		ECN	4109
DRAWN	N.C.	CHECKED		MAT'L	
APPROVED	<i>Paul 3-3-05</i>	NEXT ASSEMBLY		USED ON	
TITLE				DWG NO.	
OUTLINE/INSTALLATION DRAWING				127-3191A	
MODELS 3191A & 3191A1				SHEET 1 OF 1	



- HERMETICALLY SEALED
- HIGH SENSITIVITY

PHYSICAL

Weight, Max
Connector
Mounting Provision
Material, Housing/Connector
Sensing Element
Element Style

Type

	ENGLISH		SI	
Weight, Max	27	oz	775	grams
Connector	2 -PIN, MIL-C-5015-10SL-4P		2 -PIN, MIL-C-5015-10SL-4P	
Mounting Provision	1/4-28, TAPPED HOLE		1/4-28, TAPPED HOLE	
Material, Housing/Connector	300 SERIES		300 SERIES	
Sensing Element	CERAMIC		CERAMIC	
Element Style	ANNULAR SHEAR		ANNULAR SHEAR	

PERFORMANCE

Sensitivity, ±5% [1]
Range for ± 5 Volts Output
Frequency Response, ±5%
±10%
±3db
Resonant Frequency
Linearity [2]
Maximum Transverse sensitivity
Strain Sensitivity @ 250µε
Coefficient of Thermal Sensitivity
Broad Band Resolution
Spectral Noise

1Hz
10Hz
100Hz
1000Hz

	10	V/g	1	V/m/s ²
Range for ± 5 Volts Output	0.5	g peak	5	m/s ²
Frequency Response, ±5%	0.08 to 1000	Hz	0.08 to 1000	Hz
±10%	0.065 to 1000	Hz	0.065 to 1000	Hz
±3db	0.035 to 1000	Hz	0.035 to 1000	Hz
Resonant Frequency	> 8	kHz	> 8	kHz
Linearity [2]	± 2	% F.S.	± 2	% F.S.
Maximum Transverse sensitivity	5	%	5	%
Strain Sensitivity @ 250µε	0.001	g/µε	0.01	m/s ² /µε
Coefficient of Thermal Sensitivity	0.07	%/°F	0.14	%/°C
Broad Band Resolution	3.0E-06	g rms	2.9E-05	m/s ² rms
Spectral Noise	3.1E-07	grms/v(Hz)	3.0E-06	m/s ² rms/v(Hz)
	1.5E-07	grms/v(Hz)	1.5E-06	m/s ² rms/v(Hz)
	6.1E-08	grms/v(Hz)	6.0E-07	m/s ² rms/v(Hz)
	3.0E-08	grms/v(Hz)	2.9E-07	m/s ² rms/v(Hz)

ENVIRONMENTAL

Maximum Vibration
Maximum Shock
Operating Temperature Range
Seal

	50	g peak	491	m/s ² peak
Maximum Shock	100	g peak	981	m/s ² peak
Operating Temperature Range	-60 to +250	°F	-51 to 121	°C
Seal	HERMETIC		HERMETIC	

ELECTRICAL

Supply Current Range [3]
Compliance Voltage Range
Output Impedence, Typ
Bias Voltage
Discharge Time Constant
Electrical Isolation

	2 to 20	mA	2 to 20	mA
Supply Current Range [3]	+18 to +30	Volts	+18 to +30	Volts
Compliance Voltage Range	100	Ω	100	Ω
Output Impedence, Typ	+11 to +13	VDC	+11 to +13	VDC
Bias Voltage	4 to 7	Sec	4 to 7	Sec
Discharge Time Constant	10	GΩ, min	10	GΩ, min
Electrical Isolation				

This family also includes:

Model	Sensitivity (V/g)	Frequency Response (Hz)	Time Constant (Sec)	Operating Temp (°F)
3191A	5	0.08 to 1000	4 to 5	-60 to +250

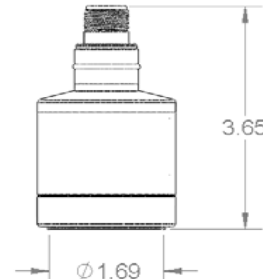
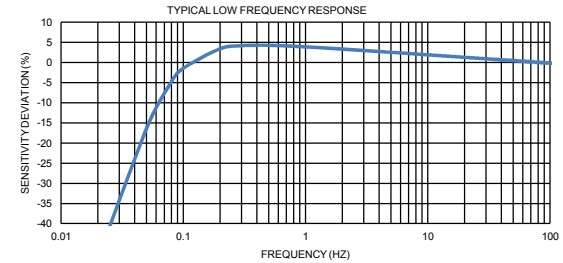
Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 6176 mounting stud

Notes:

- [1] Measured at 100Hz, 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 amplifier.
- [4] In the interest of constant product improvement, we reserve the right to change specifications without notice.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3191A for more information.



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