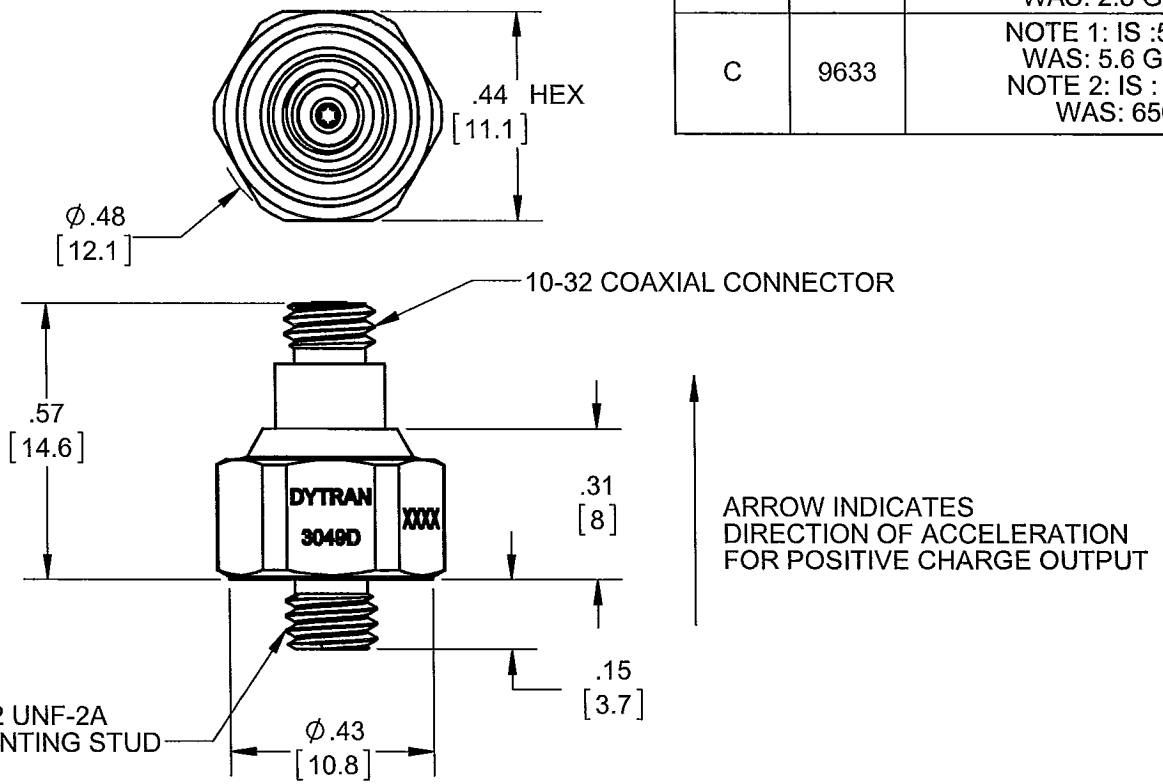
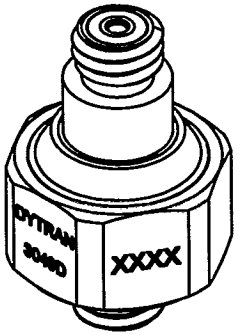
REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	9307	REVISED TO REFLECT NEW HOUSING. NOTE 3: IS :WEIGHT 4.0 GRAMS NOM. WAS: 2.8 GRAMS NOM.	LN 11/02/12	JS	AS
C	9633	NOTE 1: IS :5.0 pC/g NOM. WAS: 5.6 GRAMS NOM. NOTE 2: IS : 1500pF NOM. WAS: 650pF NOM.	LN 02/18/13	BT	AS





3. WEIGHT: 4.0 GRAMS NOM.
2. CAPACITANCE: 1500pF NOM.
1. SENSTIVITY: 5.0 pC/g NOM.

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.
63
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	PML	12/17/05
CHK	BT	02/19/13
APP	PML	06/08/06
APP		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE:

OUTLINE/INSTALLATION DRAWING, MODEL 3049D

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-3049D	C

SCALE: NONE | SOLIDWORKS | SHEET 1 OF 1

Model Number 3049D	PERFORMANCE SPECIFICATIONS	DOC NO PS3049D
	CHARGE MODE ACCELEROMETER	REV A, ECN 15295, 09/03/19

- **CHARGE MODE**
- **HERMETICALLY SEALED**
- **LOW-OUTGASSING**
- **BASE ISOLATED**

		ENGLISH		SI	
PHYSICAL					
Weight, Max.		0.15	oz	4.2	grams
Connector, Top Mounted		10-32		10-32	
Mounting Provision		Integral Stud 10-32 UNF-2A		Integral Stud 10-32 UNF-2A	
Material (Base, Cap, Connector)		Titanium Alloy		Titanium Alloy	
Sensing Element	Material	Ceramic		Ceramic	
	Mode	Shear		Shear	
PERFORMANCE					
Sensitivity, ±15% [1]		5.0	pC/g	0.5	$pC/m/s^2$
Acceleration Range F.S.		[3]	Gpeak	[3]	m/s^2 peak
Frequency Response, ± 5%		[4] to 8,000	Hz	[4] to 8,000	Hz
Resonant Frequency		> 40	kHz	> 40	kHz
Linearity, [2]		±1	% F.S.	±1	% F.S.
Maximum Transverse Sensitivity		5	%	5	%
Strain Sensitivity @ 250με		0.03	g/με	0.29	$m/s^2/\mu\varepsilon$
ENVIRONMENTAL					
Maximum Vibration		±1000	Gpeak	±9810	m/s^2 peak
Maximum Shock		±2000	Gpeak	±19620	m/s^2 peak
Temperature Range		-100 to +350	°F	-73 to +176	°C
Coefficient of Thermal Sensitivity		.06	%/°F	0.11	%/°C
Seal		Hermetic		Hermetic	
ELECTRICAL					
Capacitance, nom.		1500	pF	1500	pF
Output Signal Polarity for Acceleration Toward Top		Positive		Positive	
Case Grounding		Base Isolated		Base Isolated	

This family also includes:

Model	Sensitivity (pC/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)

Notes:

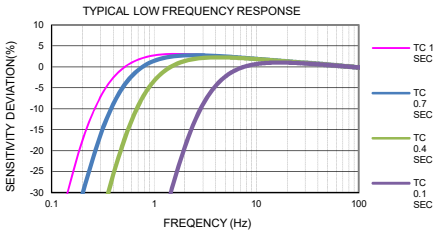
[1] Measured at 100Hz, 1 Grms per ISA RP 37.2.

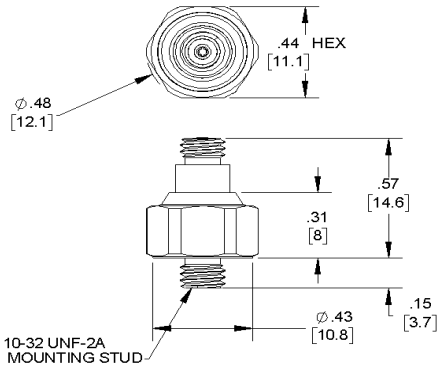
[2] Measured using zero-based straight line method, % of F.S. or any lesser range.

[3] Depends on the gain setting of the charge amplifier used

[4] Low frequency response is dependent upon the discharge time constant of the charge amplifier.
Please, refer to the plot below for frequency response for different time constants.

[5] In the interest of constant product improvement, we reserve the rights to change the 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 127-3049D for more information.

DYTRAN INSTRUMENTS, INC.
21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax:818.700.7880 www.dytran.com