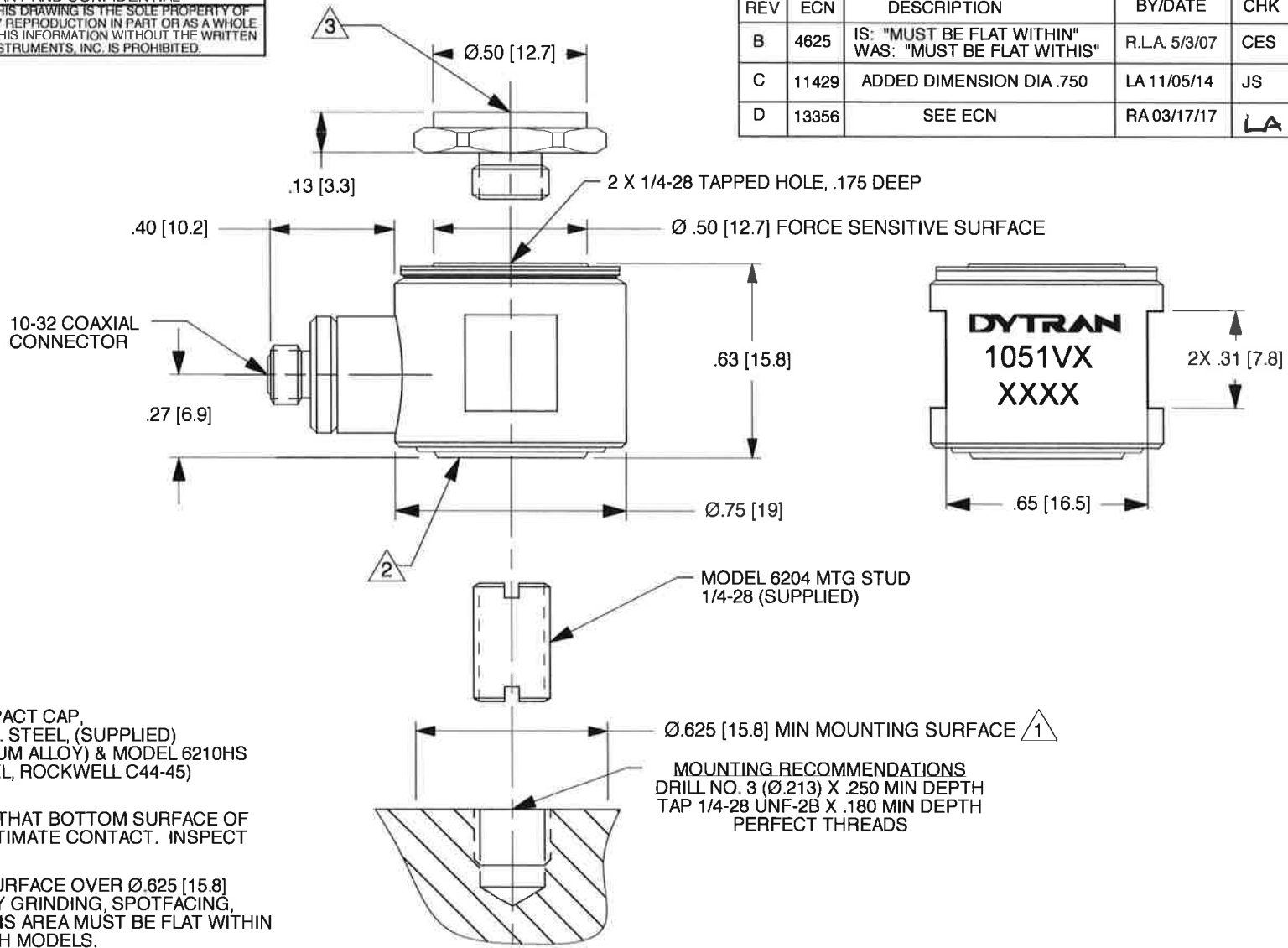


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REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	4625	IS: "MUST BE FLAT WITHIN" WAS: "MUST BE FLAT WITHIS"	R.LA. 5/3/07	CES	CES
C	11429	ADDED DIMENSION DIA .750	LA 11/05/14	JS	LN
D	13356	SEE ECN	RA 03/17/17	LA	LN



- 3 MODEL 6210S IMPACT CAP,  
MATERIAL: 303 ST. STEEL, (SUPPLIED)  
MODEL 6210A (ALUM ALLOY) & MODEL 6210HS  
(17-4 PH ST. STEEL, ROCKWELL C44-45)  
ALSO AVAILABLE
- 2 IT IS IMPORTANT THAT BOTTOM SURFACE OF  
SENSOR BE IN INTIMATE CONTACT. INSPECT  
FOR BURRS, ETC.
- 1 PREPARE FLAT SURFACE OVER  $\varnothing .625$  [15.8]  
MINIMUM AREA BY GRINDING, SPOTFACING,  
LAPPING ETC. THIS AREA MUST BE FLAT WITHIN  
.001 TIR, TYP BOTH MODELS.

MOUNTING RECOMMENDATIONS  
 DRILL NO. 3 ( $\varnothing .213$ ) X .250 MIN DEPTH  
 TAP 1/4-28 UNF-2B X .180 MIN DEPTH  
 PERFECT THREADS

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED: INTERPRET DIM & TOL PER ASME Y14.5M-1994. REMOVE BURRS COUNTERSINKS INTERNAL THDS 90° TO MAJOR DIA CHAM EXT THDS 45° TO MAJOR DIA THD LENGTHS AND DEPTHS ARE FOR THDS PER MIL-S- 7742. DIMENSIONS APPLY AFTER FINISHING.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. DIMENSION IN BRACKETS [ ] ARE IN MILLIMETERS. TOLERANCES ARE: INCHES METRIC ANGLES .XX ± .03 .X ± 0.8 ± 1° .XXX ± .010 .XX ± 0.25		CONTRACT NO.	
USED ON	NEXT ASSY	MATERIAL		APPROVALS	
APPLICATION		FINISH		ORIG	N.C. 1/30/82
THIRD ANGLE PROJECTION USA		DO NOT SCALE DRAWING		CHK	N.C. 1/30/82
ALL MACHINED SURFACES TOTAL RUNOUT WITHIN .005 BREAK SHARP EDGES .005 TO .010 MACHINE FILLET RADI .005 TO .015 WELDING SYMBOLS PER AWS A2.4 ABBREVIATIONS PER MIL-STD-12				APP	LN. 11/19/14
				APP	

**DYTRAN MASTER**  
 INSTRUMENTS, INC. ONLY IF IN RED  
 CHATSWORTH, CA.

TITLE: **OUTLINE/INSTALLATION DRAWING,  
MODEL 1051V**

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-1051V	D
SCALE:	NONE	ASHLAR GRAPHITE	SHEET 1 OF 1

<b>Model Number</b> 1051V6	<b>PERFORMANCE SPECIFICATION</b>	<b>DOC NO</b> PS1051V6
	<b>DYNAMIC FORCE SENSOR, IEPE</b>	REV B, ECN 13810, 10/23/17



- COMPRESSIVE & TENSILE LOADINGS
- EXCELLENT LINEARITY
- IEPE, VOLTAGE MODE

**PHYSICAL**

Weight, Max.  
Connector  
Material  
Sensing Element

ENGLISH		SI	
1.0	oz	28	grams
10-32		10-32	
Stainless Steel		Stainless Steel	
Quartz		Quartz	
Compression		Compression	

**PERFORMANCE**

Sensitivity, ± 10 %  
Compression Range  
Maximum Compression  
Tension Range  
Maximum Tension [1]  
Resolution  
Linearity [2]  
Resonant Frequency, Unloaded  
Stiffness, Force Sensor

1	mV/lbf	0.2	mV/N
5,000	lbf	22241.1	N
15,000	lbf	66723	N
500	lbf	2224.1	N
500	lbf	2224	N
0.07	lbf, rms	0.31138	N
±1	% Full Scale	±1	% Full Scale
75	kHz	75	kHz
11.4	lbf/μin	2.0	kN/μm

**ENVIRONMENTAL**

Maximum Shock, Unloaded  
Maximum Vibration, Unloaded  
Temperature Range  
Thermal Coefficient  
Seal

10,000	g pk	98100	m/s <sup>2</sup>
5,000	g pk	49050	m/s <sup>2</sup>
-100 to +250	°F	-73 to +121	°C
0.03	%/°F	0.05	%/°C
Epoxy		Epoxy	

**ELECTRICAL**

Output Voltage F.S.  
Output Impedance  
Bias Voltage  
Compliance Voltage Range  
Supply Current Range [3]  
Discharge Time Constant, Nom

±5	V	±5	V
<100	Ω	<100	Ω
7.5 to 11.5	VDC	7.5 to 11.5	VDC
18 to 30	VDC	18 to 30	VDC
2 to 20	mA	2 to 20	mA
2000	Sec	2000	Sec

**This family also includes:**

Model	Sens. (mV/lbf)	Compression Range (lbf)	Max. Compression (lbf)	Tension Range (lbf)	Max. Tension (lbf)	T.C. (sec)	Resolution (lbf, RMS)
1051V1	500	10	200	10	200	50	0.00014
1051V2	100	50	1000	50	500	100	0.0007
1051V3	50	100	2000	100	500	2000	0.0014
1051V4	10	500	10000	500	500	2000	0.007
1051V5	5	1,000	15000	500	500	2000	0.014

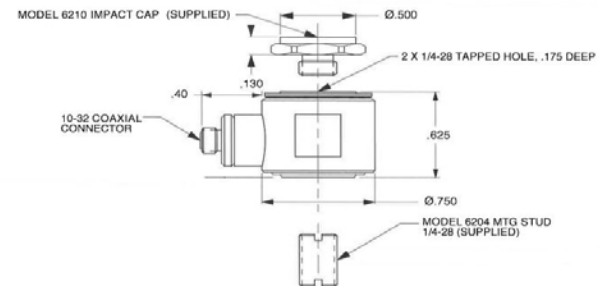
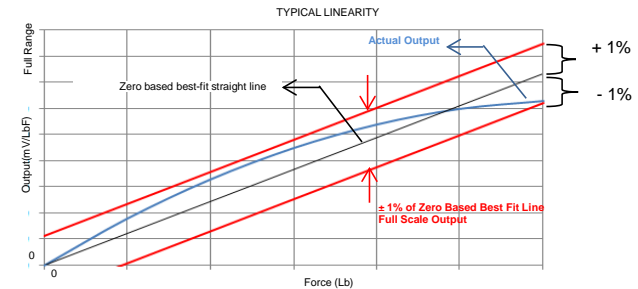
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) MOD 6210 STEEL IMPACT CAP
- 3) MOD 6204 1/4-28 MOUNTING STUD

**Notes:**

- [1] Absolute maximum tension. Do not exceed in any case!
- [2] Percent of full scale or any lesser range, zero based best-fit straight line method.
- [3] Power the device only with constant current type power units. Do not apply power to this system without current limiting. This will destroy the integral IC amplifier.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-1051V for more information.



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