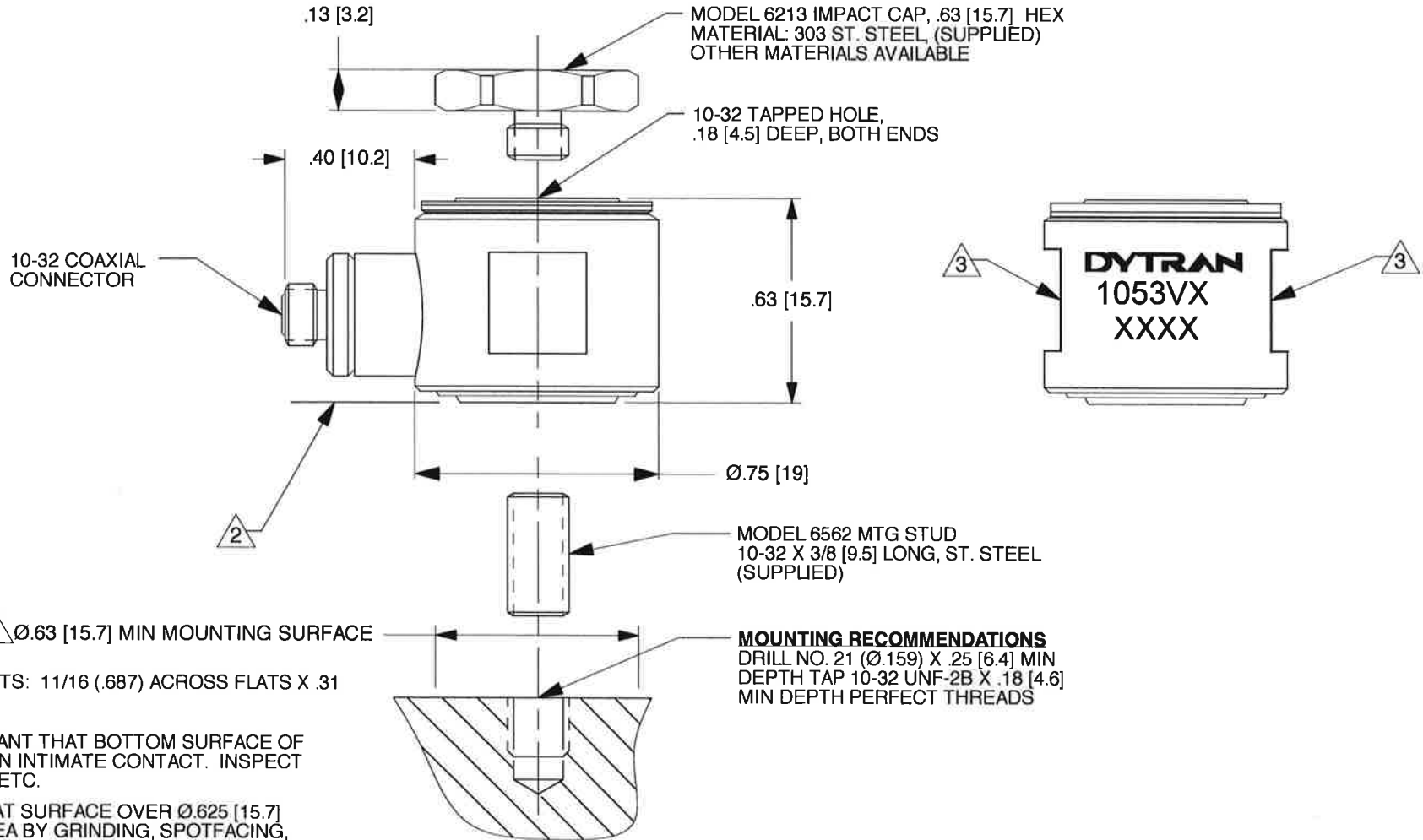


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REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	11429	ADDED DIMENSION DIA .750	LA 11/05/14	JS	LN
B	13356	SEE ECN	RA 03/20/17	LA	LN



- 3 WRENCH FLATS: 11/16 (.687) ACROSS FLATS X .31 HIGH.
- 2 IT IS IMPORTANT THAT BOTTOM SURFACE OF SENSOR BE IN INTIMATE CONTACT. INSPECT FOR BURRS, ETC.
- 1 PREPARE FLAT SURFACE OVER Ø.625 [15.7] MINIMUM AREA BY GRINDING, SPOTFACING, LAPPING ETC. THIS AREA MUST BE FLAT WITHIS .001 TIR, TYP BOTH MODELS.

**MOUNTING RECOMMENDATIONS**  
 DRILL NO. 21 (Ø.159) X .25 [6.4] MIN  
 DEPTH TAP 10-32 UNF-2B X .18 [4.6]  
 MIN DEPTH PERFECT THREADS

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 .XX ± 0.8 ± 1° .XXX ± 0.10 .XXX ± 0.25		CONTRACT NO.	
USED ON	NEXT ASSY	MATERIAL	APPROVALS	DATE	
APPLICATION		FINISH	ORIG	N.C.	1/15/01
THIRD ANGLE PROJECTION USA			CHK	N.C.	1/15/01
ALL MACHINED SURFACES TOTAL RUNOUT WITHIN .005 BREAK SHARP EDGES .005 TO .010 MACHINE FILLET RADII .005 TO .015 WELDING SYMBOLS PER AWS A2.4 ABBREVIATIONS PER MIL-STD-12			APP	LN.	11/19/14
		DO NOT SCALE DRAWING	APP		

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**DYTRAN INSTRUMENTS, INC.**  
 CHATSWORTH, CA.

TITLE: **OUTLINE/INSTALLATION DRAWING, MODEL SERIES 1053V**

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-1053V	B
SCALE:	2X	ASHLAR GRAPHITE	SHEET 1 OF 1

Model Number 1053V5	<b>PERFORMANCE SPECIFICATION</b>					DOC NO PS1053V5
	<b>DYNAMIC FORCE SENSOR</b>					REV A, ECN 11034, 06/25/14



- COMPRESSIVE & TENSILE LOADINGS
- EXCELLENT LINEARITY

**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

5	mV/lbf	1.1	mV/N
1,000	lbf	4.45	kN
15,000		66.7	kN
200	lbf	890	N
200	lbf	890	N
0.014	lbf, rms	0.062	N
±1	% Full Scale	±1	% Full Scale
75	kHz	75	kHz
11.4	lbf/μin	2.0	kN/μm

**ENVIROMENTAL**  
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 9.5	VDC	7.5 to 9.5	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)
1053V1	500	10	200	10	200	50	0.00014
1053V2	100	50	1,000	50	200	100	0.0007
1053V3	50	100	2,000	100	200	500	0.0014
1053V4	10	500	10,000	200	200	2,000	0.007
1053V6	1	5,000	15,000	200	200	2,000	0.07

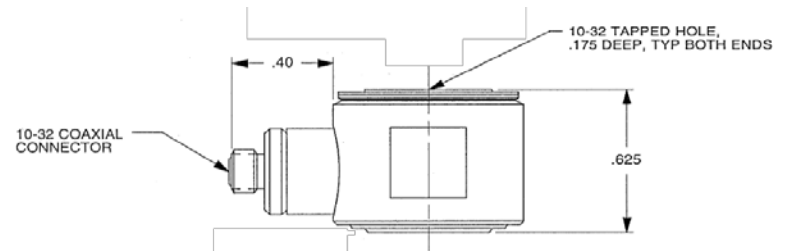
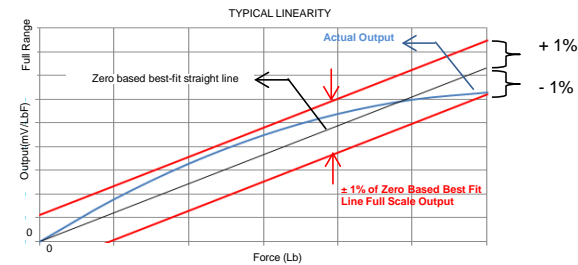
Refer to the performance specifications of the products in this family for detailed description.

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model 6213 steel impact cap, Model 6562 10-32 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] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the integral IC 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 127-1053V for more information.



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