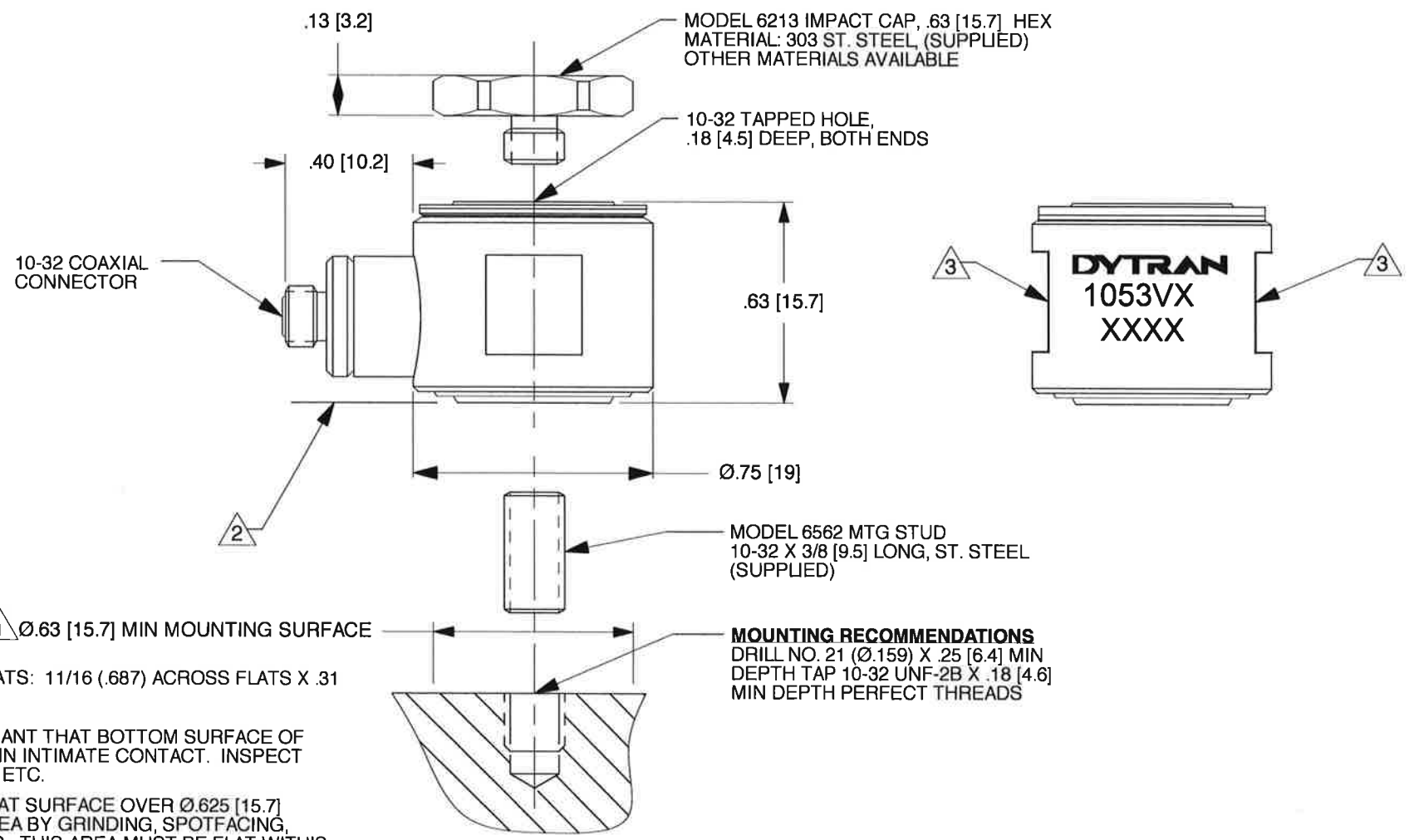


DYTRAN PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
 DYTRAN INSTRUMENTS, INC. AND ANY REPRODUCTION IN PART OR AS A WHOLE
 OR ANY OTHER DISSEMINATION OF THIS INFORMATION WITHOUT THE WRITTEN
 PERMISSION OF DYTRAN INSTRUMENTS, INC. IS PROHIBITED.

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 X ± 0.8 ± 1° .XXX ± 0.10 .XX ± 0.25		CONTRACT NO.	
USED ON	NEXT ASSY	MATERIAL		APPROVALS	
APPLICATION		FINISH		ORIG	N.C.
THIRD ANGLE PROJECTION USA		DO NOT SCALE DRAWING		CHK	N.C.
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.
				DATE	1/15/01
				DATE	1/15/01
				DATE	11/19/14

MASTER COPY IF IN RED
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 1053V3	PERFORMANCE SPECIFICATION				DOC NO PS1053V3
	DYNAMIC FORCE SENSOR				REV B, ECN 16158, 04/19/21



- 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

50	mV/lbf	11.2	mV/N
100	lbf	444.8	N
2,000	lbf	8896	N
100	lbf	444.8	N
200	lbf	890	N
0.0014	lbf, RMS	0.0062	N
±1	% Full Scale	±1	% Full Scale
75	kHz	75	kHz
11.4	lbf/μin	2.0	kN/μm

ENVIRONMENTAL

Maximum Shock, Unloaded
Temperature Range
Thermal Coefficient
Seal

10,000	g pk	98100	m/s ² pk
-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 [4]
Discharge Time Constant, Min

±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
100	Sec	100	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	>20	0.00014
1053V2	100	50	1000	50	200	>50	0.0007
1053V4	10	500	10000	200	200	>1000	0.007
1053V5	5	1,000	15000	200	200	>1200	0.014
1053V6	1	5,000	15000	200	200	>2000	0.07

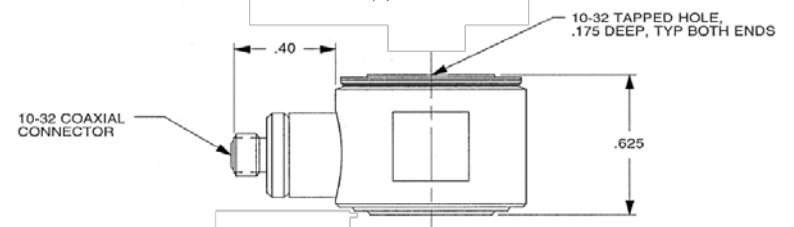
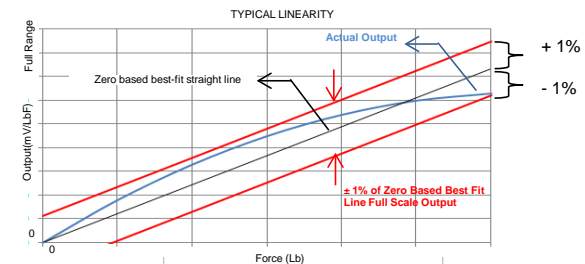
Refer to the performance specifications of the products in this family for detailed description.

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] Measure using zero-based straight line method, % of F.S. or any lesser range.
- [3] All specifications are at room temperature unless otherwise specified.
- [4] Do not apply power to this system without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
- [5] 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 over time. 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 127-1053V for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.698.0362 www.dytran.com
For permission to reprint this content, please contact info@dytran.com