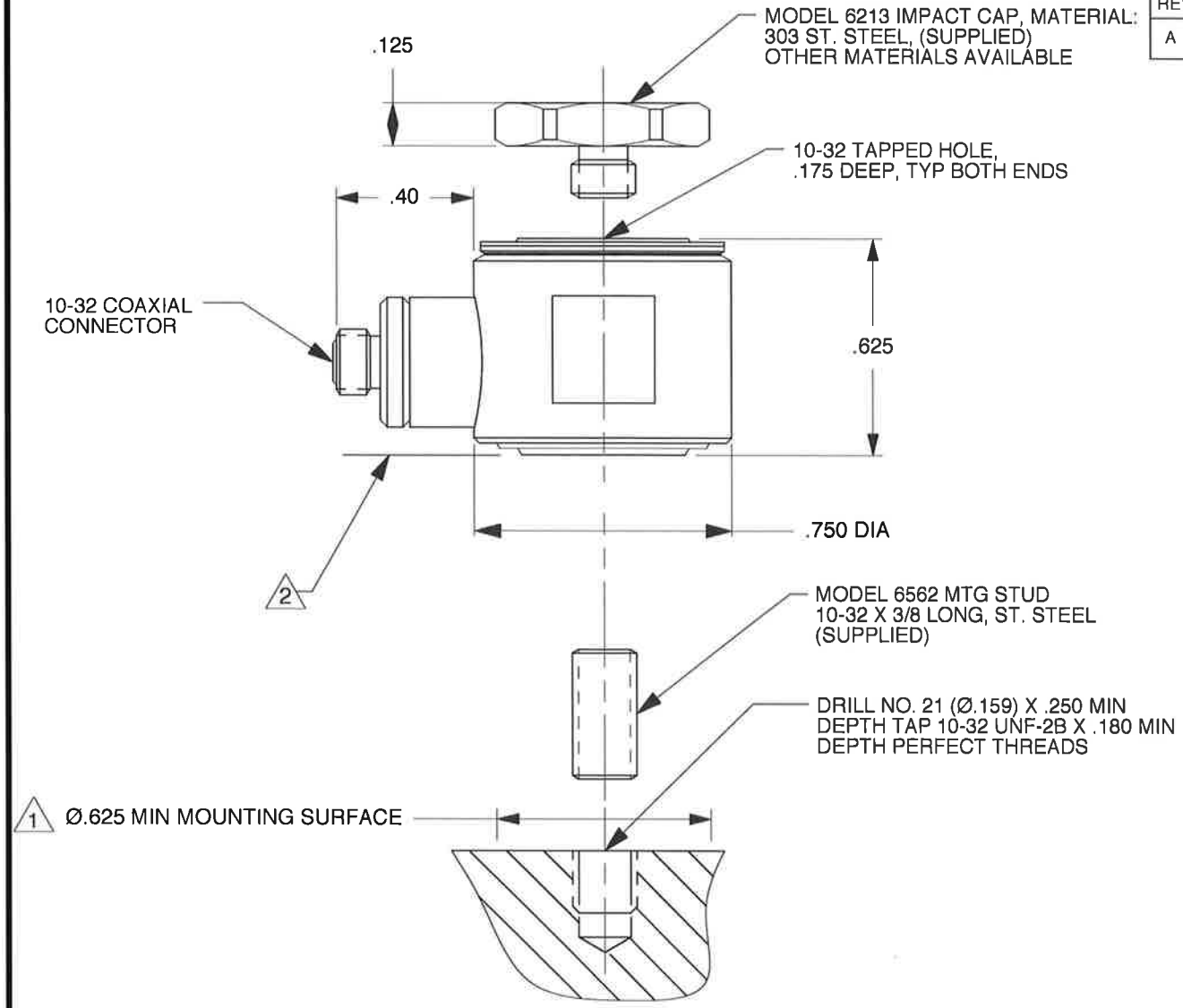
REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	11429	ADDED DIMENSION DIA .750	LA 11/05/14		



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 MINIMUM AREA BY GRINDING, SPOTFACING, LAPPING ETC. THIS AREA MUST BE FLAT WITHIS .001 TIR, TYP BOTH MODELS.

EXCEPT AS OTHERWISE NOTED

ALL DIMENSIONS IN INCHES
TOLERANCE: .XXX = ± .XX= ±

SURFACE FINISH EXCEPT AS NOTED √

BREAK EDGES TO DEBURR RADIUS OR CHAMFER

- THESE DIAS Ⓞ TO T.I.R.

FILLETS - MAX RAD.

DYTRAN INSTRUMENTS, INC.

MASTER
ONLY IF IN RED

CHATSWORTH, CA.

SCALE 2X	REV -	DATE -	ECN SEE REV BLK		
DATE 1/15/01	PART NO. -				
DRAWN N.C.	CHECKED N.C.	MAT'L -			
APPROVED LW 11/19/14	NEXT ASSEMBLY	USED ON SERIES 1053V			

TITLE
OUTLINE/INSTALLATION DRAWING, MODEL SERIES 1053V

DWG NO. **127-1053V**

SHEET 1 OF 1

Model Number 1053V2	PERFORMANCE SPECIFICATION	DOC NO PS1053V2
	DYNAMIC FORCE SENSOR	REV A, ECN 11034, 06/25/14

- **COMPRESSIVE & TENSILE LOADINGS**
- **EXCELLENT LINEARITY**

		ENGLISH		SI	
PHYSICAL					
Weight, Max.		1.0	oz	28	grams
Connector		10-32		10-32	
Material		Stainless Steel		Stainless Steel	
Sensing Element	Material	Quartz		Quartz	
	Mode	Compression		Compression	
PERFORMANCE					
Sensitivity, ± 10 %		100	mV/lbf	22.5	mV/N
Compression Range		50	lbf	222.4	N
Maximum Compression		1,000	lbf	4448	N
Tension Range		50	lbf	222.4	N
Maximum Tension [1]		200	lbf	890	N
Resolution		0.0007	lbf, rms	0.0031	N
Linearity [2]		±1	% Full Scale	±1	% Full Scale
Resonant Frequency, Unloaded		75	kHz	75	kHz
Stiffness, Force Sensor		11.4	lbf/µin	2.0	kN/µm
ENVIROMENTAL					
Maximum Shock, Unloaded		10,000	g pk	98100	m/s^2
Maximum Vibration, Unloaded		5,000	g pk	49050	m/s^2
Temperature Range		-100 to +250	°F	-73 to +121	°C
Thermal Coefficient		0.03	%/°F	0.05	%/°C
Seal		Epoxy		Epoxy	
ELECTRICAL					
Output Voltage F.S		±5	V	±5	V
Output Impedance		<100	Ω	<100	Ω
Bias Voltage		7.5 to 9.5	VDC	7.5 to 9.5	VDC
Compliance Voltage Range		18 to 30	VDC	18 to 30	VDC
Supply Current Range [3]		2 to 20	mA	2 to 20	mA
Discharge Time Constant, Nom		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	50	0.00014
1053V3	50	100	2000	100	200	500	0.0014
1053V4	10	500	10000	200	200	2000	0.007
1053V5	5	1,000	15000	200	200	2000	0.014
1053V6	1	5,000	15000	200	200	2000	0.07

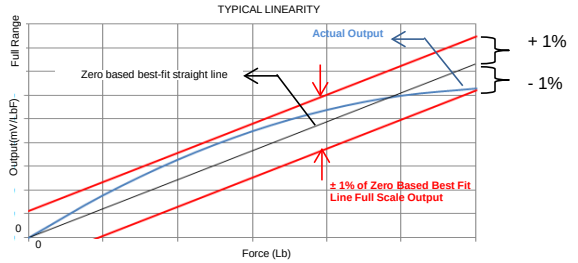
Refer to the performance specifications of the products in this family for detailed description.

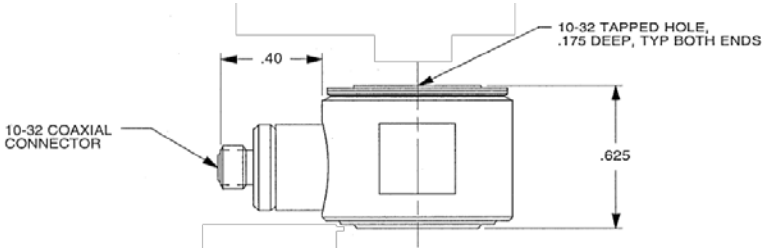
Supplied Accessories:

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] 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 limting, 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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