

PORT PREPARATION:
 DRILL ".1" (Ø.272) THRU
 TAP 5/16-24 UNF-2B X
 .360 MIN. DEPTH PERF. THREADS

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

REDRAWN ON CAD 10/16/98

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.

		CHATSWORTH, CA.		
				SCALE 2X
DATE 1/30/82	PART NO. -			
DRAWN N.C.	CHECKED N.C.	MAT'L -		
APPROVED [Signature]	11-29-05	NEXT ASSEMBLY		USED ON 1050V
TITLE OUTLINE/INSTALLATION DRAWING, MODEL 1050V FORCE SENSOR				DWG NO. 127-1050V
				SHEET 1 OF 1

Model Number 1050V3	PERFORMANCE SPECIFICATION	Doc No PS1050V3
	Force Sensors, IEPE	REV A, ECN 12881, 08/15/16



- DYNAMIC FORCE SENSOR
- VOLTAGE MODE
- EXCELLENT LINEARITY

PHYSICAL

Weight, Max.	Type
Connector	Thread
Housing	Material
Sensing Element	Isolation
	Material
	Mode

ENGLISH		SI	
1.12	oz	32	grams
Coaxial		Coaxial	
10-32		10-32	
Stainless steel		Stainless steel	
Case grounded		Case grounded	
Quartz		Quartz	
Compression		Compression	

PERFORMANCE

Sensitivity, +/-10%	50	mV/Lb
Compression Range	100	Lbs.Force
Maximum Compression, +/-5%	2000	Lbs.Force
Tension Range	100	Lbs.Force
Maximum Tension [1], +/-5%	1000	Lbs.Force
Resolution	.0014	Lb. RMS
Linearity [2]	± 1	% Full Scale
Mounted Resonance (Unloaded)	≥ 75	kHz
Stiffness	11.4	Lb/μin

11.2	mV/N
445	N
8896	N
445	N
4448	N
0.00623	N RMS
± 1	% Full Scale
≥ 75	kHz
1.97	kN/μm

ENVIRONMENTAL

Coefficient Of Thermal Sensitivity	0.03	%/°F
Operating Temperature	-100 to +250	°F
Maximum Vibration	5000	g's,Peak
Maximum Shock	10,000	g's,Peak
Environmental Seal	Epoxy	

0.05	%/°C
-73 to +121	°C
49000	m/s^2 Peak
98,000	m/s^2 Peak
Epoxy	

ELECTRICAL

Supply Current [3]	2 to 20	mA
Compliance Voltage	18 to 30	VDC
Discharge Time Constant, Min.	500	Seconds
F.S. Output Voltage	5	Volts
Output Impedance	100	Ω

2 to 20	mA
18 to 30	VDC
500	Seconds
5	Volts
100	Ω

This family also includes:

Model	Sensitivity (mV/Lb)	Range (LbsF) Compressive, Tensile	Max Force (LbsF) Compressive, Tensile	Discharge Time Constant (Sec)
1050V1	500	10, 10	200, 200	50
1050V2	100	50, 50	1000, 1000	100
1050V4	10	500, 500	10000, 1000	2000
1050V5	5	1000, 500	15000, 1000	2000
1050V6	1	5000, 500	15000, 1000	2000

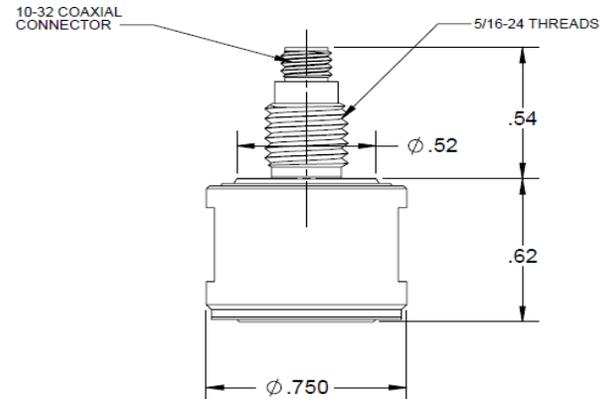
Refer to the performance specifications of the products in this family for detailed description

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 these instruments only with constant current type power units. Do not connect to a source of voltage 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 127-1050V for more information.



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