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REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
C	-	SEE ECN	NC, 11/29/05	NC	NC
D	13356	SEE ECN	RA, 03/20/17	LA	LN
E	13851	$\varnothing .750 \pm .005$ [19.05] WAS: $\varnothing .75$ [19]	RA, 11/09/17	MH	LN
F	15815	1/4 UNF-2B X .165/.185 WAS: 1/4 UNF-2B X .200	RA, 06/25/20	DP	LN- SEE PDM

SENSE & DIRECTION OF  
FORCE FOR POSITIVE GOING  
OUTPUT

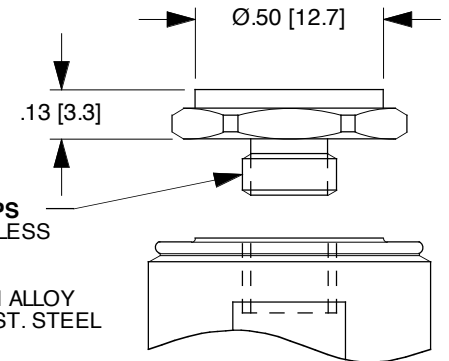
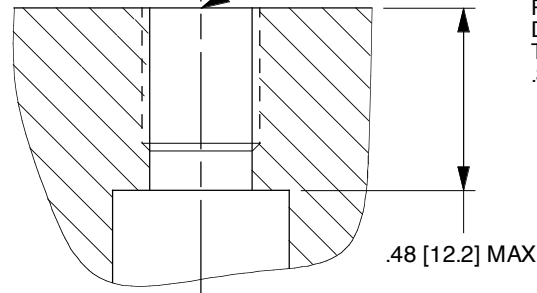
1/4-28 UNF-2B X .165/.185  
DEEP, TAPPED HOLE



10-32 COAXIAL  
CONNECTOR.


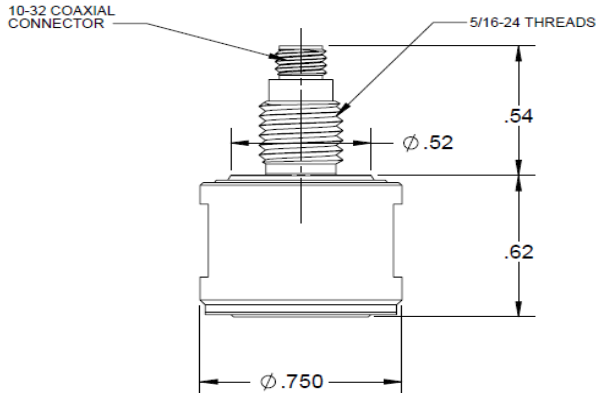

**SERIES 6210 IMPACT CAPS**  
MODEL 6210S, 303 STAINLESS  
STEEL (SUPPLIED)  
ALSO AVAILABLE:  
MODEL 6210A, ALUMINUM ALLOY  
MODEL 6210HS, 17-4 PH ST. STEEL

**MOUNTING RECOMMENDATIONS**  
PORT PREPARATION:  
DRILL "I" ( $\varnothing .272$ ) THRU  
TAP 5/16-24 UNF-2B X  
.360 [9] 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  $\varnothing .62$  [15.8] MINIMUM AREA BY GRINDING, SPOTFACING, LAPPING ETC. THIS AREA MUST BE FLAT WITHIN .001 TIR, TYP BOTH MODELS.



		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.THLD 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.		<div>DYTRAN INSTRUMENTS, INC. CHATSWORTH, CA.</div>					
			ALL MACHINED SURFACES TOTAL RUNOUT WITHIN .005 BREAK SHARP EDGES .005 TO .010 MACHINE FILLET RAD. .005 TO .015. WELDING SYMBOLS PER AWS A2.4 ABBREVIATIONS PER MIL-STD-12	MATERIAL		APPROVALS		DATE		TITLE  <b>OUTLINE/INSTALLATION DRAWING, MODEL 1050V FORCE SENSOR</b>			
					ORIG	N.C.	1/30/82						
				FINISH	CHK	N.C.	1/30/82						
USED ON	NEXT ASSY			APP	N.C.	11/29/05		SIZE	CAGE CODE	DWG. NO.		REV	
APPLICATION			DO NOT SCALE DRAWING		APP			A	2W033	127-1050V		F	
								SCALE:	NONE	ASHLAR GRAPHITE	SHEET 1 OF 1		

Model Number 1050V6		PERFORMANCE SPECIFICATION				Doc No PS1050V6																																				
		Force Sensors, IEPE				REV C, ECN 16158, 04/19/21																																				
		<ul style="list-style-type: none"><li>• DYNAMIC FORCE SENSOR</li><li>• VOLTAGE MODE</li><li>• EXCELLENT LINEARITY</li></ul>				This family also includes:																																				
						<table><tr><th>Model</th><th>Sensitivity (mV/lbf)</th><th>Range (lbf) Compressive, Tensile</th><th>Max Force (lbf) Compressive, Tensile</th><th>Discharge Time Constant (Sec)</th></tr><tr><td>1050V1</td><td>500</td><td>10, 10</td><td>200, 200</td><td>&gt;20</td></tr><tr><td>1050V2</td><td>100</td><td>50, 50</td><td>1000, 1000</td><td>&gt;50</td></tr><tr><td>1050V3</td><td>50</td><td>100, 100</td><td>2000, 1000</td><td>&gt;100</td></tr><tr><td>1050V4</td><td>10</td><td>500, 500</td><td>10000, 1000</td><td>&gt;1000</td></tr><tr><td>1050V5</td><td>5</td><td>1000, 500</td><td>15000, 1000</td><td>&gt;1200</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>		Model	Sensitivity (mV/lbf)	Range (lbf) Compressive, Tensile	Max Force (lbf) Compressive, Tensile	Discharge Time Constant (Sec)	1050V1	500	10, 10	200, 200	>20	1050V2	100	50, 50	1000, 1000	>50	1050V3	50	100, 100	2000, 1000	>100	1050V4	10	500, 500	10000, 1000	>1000	1050V5	5	1000, 500	15000, 1000	>1200					
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<b>PHYSICAL</b> Weight, Max. Connector  Housing  Sensing Element		Type Thread Material Isolation Material Mode	ENGLISH		SI																																					
			<table><tr><td>1.12</td><td>oz</td><td>32</td><td>grams</td></tr><tr><td>Coaxial</td><td></td><td>Coaxial</td><td></td></tr><tr><td>10-32</td><td></td><td>10-32</td><td></td></tr><tr><td>Stainless steel</td><td></td><td>Stainless steel</td><td></td></tr><tr><td>Case grounded</td><td></td><td>Case grounded</td><td></td></tr><tr><td>Quartz</td><td></td><td>Quartz</td><td></td></tr><tr><td>Compression</td><td></td><td>Compression</td><td></td></tr></table>		1.12	oz	32	grams	Coaxial		Coaxial		10-32		10-32		Stainless steel		Stainless steel		Case grounded		Case grounded		Quartz		Quartz		Compression		Compression		Refer to the performance specifications of the products in this family for detailed description									
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<b>PERFORMANCE</b> Sensitivity, +/-10% Compression Range Maximum Compression , +/-5% Tension Range Maximum Tension [1], +/-5% Resolution Linearity [2] Mounted Resonance (Unloaded) Stiffness			<table><tr><td>1</td><td>mV/lbf</td><td>0.22</td><td>mV/N</td></tr><tr><td>5000</td><td>lbf</td><td>22240</td><td>N</td></tr><tr><td>15000</td><td>lbf</td><td>66720</td><td>N</td></tr><tr><td>500</td><td>lbf</td><td>2224</td><td>N</td></tr><tr><td>1000</td><td>lbf</td><td>4448</td><td>N</td></tr><tr><td>0.07</td><td>lbf, RMS</td><td>0.31136</td><td>N RMS</td></tr><tr><td>± 1</td><td>% Full Scale</td><td>± 1</td><td>% Full Scale</td></tr><tr><td>≥ 75</td><td>kHz</td><td>≥ 75</td><td>kHz</td></tr><tr><td>11.4</td><td>lbf/μin</td><td>1.97</td><td>kN/μm</td></tr></table>		1	mV/lbf	0.22	mV/N	5000	lbf	22240	N	15000	lbf	66720	N	500	lbf	2224	N	1000	lbf	4448	N	0.07	lbf, RMS	0.31136	N RMS	± 1	% Full Scale	± 1	% Full Scale	≥ 75	kHz	≥ 75	kHz	11.4	lbf/μin	1.97	kN/μm	<b>Supplied Accessories:</b> 1) Accredited Calibration Certificate (ISO 17025) 2) MOD 6210 STEEL IMPACT CAP 3) MOD 6204 1/4-28 MOUNTING STUD	
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<b>ENVIRONMENTAL</b> Coefficient Of Thermal Sensitivity Operating Temperature Maximum Shock Environmental Seal			<table><tr><td>0.03</td><td>%/°F</td><td>0.05</td><td>%/°C</td></tr><tr><td>-100 to +250</td><td>°F</td><td>-73 to +121</td><td>°C</td></tr><tr><td>10,000</td><td>g pk</td><td>98,000</td><td>m/s<sup>2</sup> pk</td></tr><tr><td>Epoxy</td><td></td><td>Epoxy</td><td></td></tr></table>		0.03	%/°F	0.05	%/°C	-100 to +250	°F	-73 to +121	°C	10,000	g pk	98,000	m/s <sup>2</sup> pk	Epoxy		Epoxy		<b>Notes:</b> [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.																					
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<b>ELECTRICAL</b> Supply Current [4] Compliance Voltage Discharge Time Constant, Min. F.S. Output Voltage Output Impedance Bias Voltage			<table><tr><td>2 to 20</td><td>mA</td><td>2 to 20</td><td>mA</td></tr><tr><td>18 to 30</td><td>VDC</td><td>18 to 30</td><td>VDC</td></tr><tr><td>2000</td><td>Sec</td><td>2000</td><td>Sec</td></tr><tr><td>5</td><td>Volts</td><td>5</td><td>Volts</td></tr><tr><td>100</td><td>Ω</td><td>100</td><td>Ω</td></tr><tr><td>7.5 to 9.5</td><td>VDC</td><td>7.5 to 9.5</td><td>VDC</td></tr></table>		2 to 20	mA	2 to 20	mA	18 to 30	VDC	18 to 30	VDC	2000	Sec	2000	Sec	5	Volts	5	Volts	100	Ω	100	Ω	7.5 to 9.5	VDC	7.5 to 9.5	VDC														
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		Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-1050V 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																																								