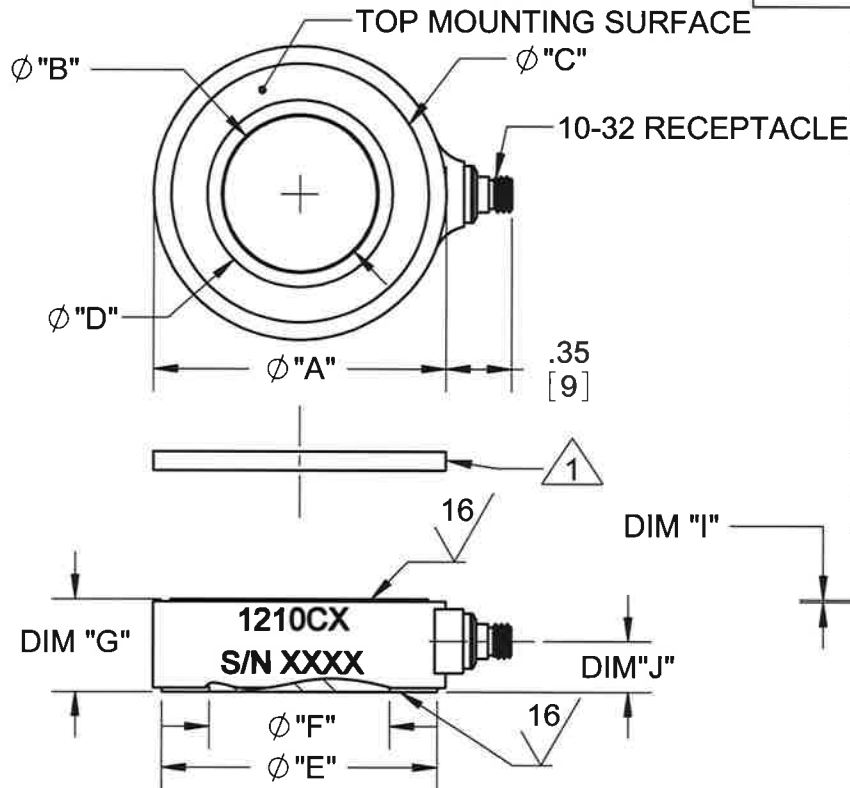


**PROPRIETARY AND CONFIDENTIAL**

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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
F	13657	ADDED: SURFACE FINISH ON MOUNTING SURFACES	AM 8/14/2017	LW	AS



MODEL	1210C1	1210C2	1210C3	1210C4	1210C5	1210C6	1210C7
Ø A	.65[16.5]	.87[22.1]	1.10[27.9]	1.34[34]	1.58[40.1]	2.05[52.1]	2.95[74.9]
Ø B	.26[6.6]	.41[10.4]	.52[13.2]	.66[16.8]	.83[21.1]	1.03[26.2]	1.61[40.9]
Ø C	.56[14.2]	.75[19.0]	.97[24.6]	1.18[29.9]	1.39[35.3]	1.86[47.3]	2.73[69.3]
Ø D	.35[8.89]	.51[13.1]	.64[16.4]	.82[20.8]	1.0[25.4]	1.22[30.9]	1.85[46.99]
Ø E	.60[15.1]	.80[20.3]	1.02[25.9]	1.26[32.0]	1.49[37.8]	1.97[50.0]	2.84[72.1]
Ø F	.32[8.0]	.47[11.9]	.58[14.7]	.74[18.7]	.92[23.3]	1.11[28.2]	1.7[43.2]
DIM "G"	.31[7.9]	.39[9.9]	.43[10.9]	.47[11.9]	.51[12.9]	.59[15]	.67[17]
DIM "H"	.010[.25]	.015[.38]	.018[.45]	.018[.45]	.018[.45]	.018[.45]	.018[.45]
DIM "I"	.010[.25]	.020[.50]	.020[.50]	.020[.50]	.020[.50]	.020[.50]	.020[.50]
DIM "J"	.16[4.1]	.20[5.2]	.22[5.7]	.23[6.0]	.27[6.9]	.29[7.3]	.33[8.5]
RANGE	5,000	10,000	20,000	40,000	60,000	80,000	100,000
△ 1	6904	6905	6906	6907	6901	6908	6909



2. NOMINAL SENSITIVITY -18 pC/lb ON COMPRESSION.

△ 1 USE APPROPRIATE SUPPLIED WASHER ON TOP MOUNTING SURFACE.

**NOTES: UNLESS OTHERWISE SPECIFIED**

SEE CHART	UNLESS OTHERWISE SPECIFIED: INTERPRET DIM & TOL PER ASME Y14.5M - 1994. REMOVE BURRS. COUNTERSINK INTERNAL THDS 90° TO MAJOR DIA. CHAM EXT THDS 45° TO MINOR DIA. THD LENGTHS AND DEPTHS ARE FOR MIN FULL THDS. THDS PER MIL-S-7742. DIMENSIONS APPLY AFTER FINISHING.	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS TOLERANCES ARE: INCHES METRIC ANGLES .XX ± .03 X ± 0.8 ± 1° .XXX ± .010 .XX ± 0.25
USED ON	NEXT ASSY	
APPLICATION		
THIRD ANGLE PROJECTION USA		
ALL MACHINED SURFACES. TOTAL RUNOUT WITHIN .005. BREAK SHARP EDGES .005 TO .010. MACHINED FILLET RADII .005 TO .015. WELDING SYMBOLS PER AWS A2.4. ABBREVIATIONS PER MIL-STD-12.		

CONTRACT NO.	
APPROVALS	DATE
ORIG JS	11/25/08
CHK EP	12/08/08
APP DV	12/08/08
APP	
DO NOT SCALE DRAWING	

**DYTRAN** MASTER ONLY IF IN RED  
INSTRUMENTS, INC. Chatsworth, CA

TITLE: **OUTLINE DRAWING 1210C SERIES**

SIZE <b>A</b>	CAGE CODE <b>2W033</b>	DWG. NO. <b>127-1210C</b>	REV <b>F</b>
SCALE: 1:1	SOLIDWORKS	SHEET 1 OF 1	



- RING STYLE FORCE SENSOR
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

**PHYSICAL**

Weight, Max Size  
Outer Dia  
Inner Dia  
Thickness  
Connector [1]  
Type  
Material  
Housing  
Material  
Isolation  
Sensing Element  
Material  
Mode

ENGLISH		SI	
Weight, Max	5.90 oz	168.00	grams
Outer Dia	2.05 Inches	52.07	mm
Inner Dia	1.03 Inches	26.16	mm
Thickness	0.59 Inches	14.99	mm
Connector [1]	10-32	10-32	
Material	Stainless steel	Stainless steel	
Housing	Stainless steel	Stainless steel	
Isolation	Case grounded	Case grounded	
Sensing Element	Quartz	Quartz	
Mode	Compression	Compression	

**PERFORMANCE**

Sensitivity, ± 15 %  
Range, Full Scale  
Maximum Force  
Maximum Unloaded Vibration  
Linearity [2]  
Resonant Frequency., No Load  
Stiffness  
Output Polarity for Compression Force  
Preload  
Capacitance, Nominal

Sensitivity, ± 15 %	-18 pC/Lb	-4.45 pC/N	
Range, Full Scale	80,000 Lbs.Force	355.86 kN	
Maximum Force	90,000 Lbs.Force	400.34 kN	
Maximum Unloaded Vibration	2,000 g's,Peak	19,600 m/s^2 Peak	
Linearity [2]	± 1 % Full Scale	± 1 % Full Scale	
Resonant Frequency., No Load	75 kHz	75 kHz	
Stiffness	160 Lb/μin	27.72 kN/μm	
Output Polarity for Compression Force	Negative	Negative	
Preload	2000 Lbs.Force	8.90 kN	
Capacitance, Nominal	170 pF	170 pF	

**ENVIRONMENTAL**

Coefficient Of Thermal Sensitivity  
Operating Temperature  
Environmental Seal  
Insulation Resistance

Coefficient Of Thermal Sensitivity	0.03 %/°F	0.03 %/°C	
Operating Temperature	-60 to +400 °F	-51 to +204 °C	
Environmental Seal	Hermetic	Hermetic	
Insulation Resistance	1 TΩ	1 TΩ	

**This family also includes:**

Model	Sensitivity (pC/Lb)	Range (Lbs.Force)	Max.Force (Lbs.Force)	Oper. Temp(°F)
1210C1	-18	5,000	10,000	-60 to +400
1210C2	-18	10,000	15,000	-60 to +400
1210C3	-18	20,000	25,000	-60 to +400
1210C4	-18	40,000	50,000	-60 to +400
1210C5	-18	60,000	90,000	-60 to +400
1210C7	-18	100,000	110,000	-60 to +400

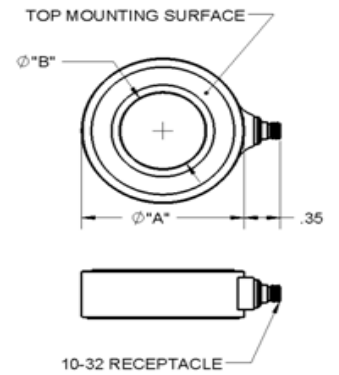
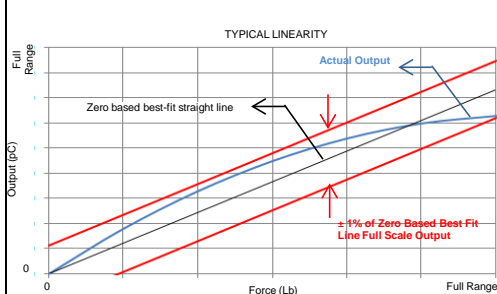
Please, refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Use supplied washer for top mounting surface (Model # 6908)

**Notes:**

- [1] Radially mounted with 10-32 receptacle micro coaxial connector
- [2] Percent of full scale or any lesser range, Zero based best-fit straight line method.



Model	"A" Outer Dia Inches	"B" Inner Dia Inches	"C" Thickness Inches
1210C1	0.65 [16.51]	0.26 [6.60]	0.31 [7.87]
1210C2	0.87 [22.09]	0.41 [10.41]	0.39 [9.90]
1210C3	1.10 [27.94]	0.52 [13.20]	0.43 [10.92]
1210C4	1.34 [34.06]	0.66 [16.76]	0.47 [11.93]
1210C5	1.58 [40.13]	0.83 [21.08]	0.51 [12.95]
1210C7	2.95 [74.93]	1.61 [40.89]	0.67 [17.01]

Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-1210C for more information.

