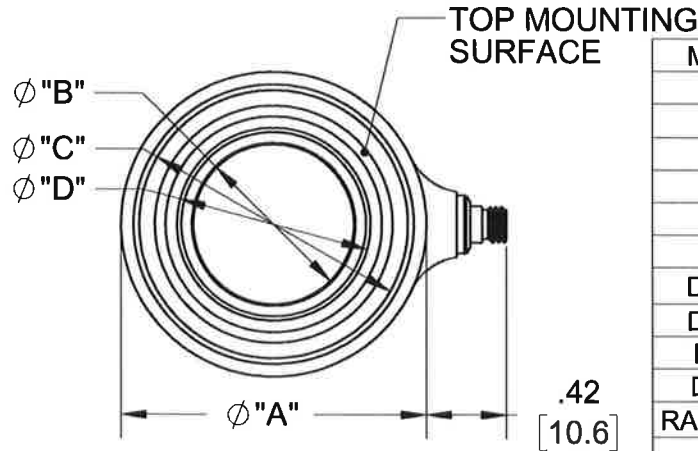


**PROPRIETARY AND CONFIDENTIAL**

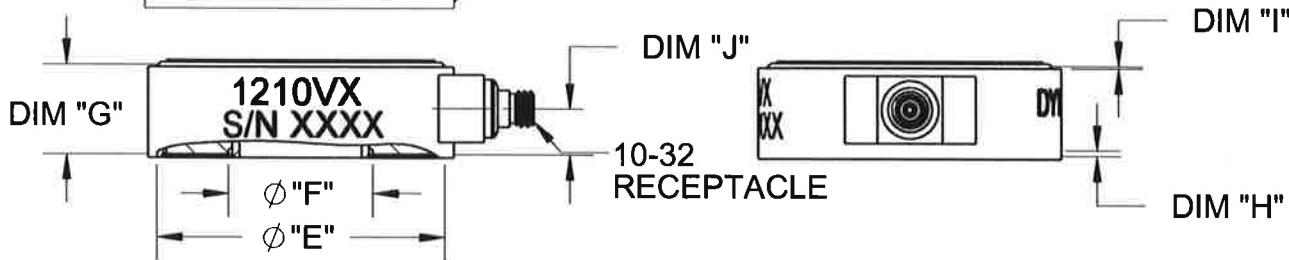
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**REVISIONS**

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	9467	INITIAL RELEASE	JS 08/27/15	DV	RT
B	12444	1210V1 $\phi$ "B" WAS: .28 [7.1]	JS 01/18/16	LA	LW



MODEL	1210V1	1210V2	1210V3	1210V4	1210V5	1210V6	1210V7
$\phi$ "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]
$\phi$ "B"	.26 [6.6]	.41 [10.4]	.54 [13.7]	.66 [16.8]	.83 [21.1]	1.03 [26.2]	1.61 [40.9]
$\phi$ "C"	.56 [14.2]	.75 [19.0]	.97 [24.6]	1.18 [29.9]	1.39 [35.3]	1.87 [47.3]	2.73 [69.3]
$\phi$ "D"	.35 [8.89]	.52 [13]	.65 [16.5]	.82 [20.8]	1.00 [25.4]	1.22 [30.9]	1.85 [47]
$\phi$ "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]
$\phi$ "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]	.41 [10.4]	.46 [11.7]	.49 [12.4]	.56 [14.2]	.64 [16.3]
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 LbF	5,000	10,000	20,000	40,000	60,000	80,000	100,000
$\triangle$ 1	6904	6905	6906	6907	6901	6908	6909



$\triangle$  1 USE APPROPRIATE SUPPLIED WASHER ON TOP MOUNTING SURFACE.

**NOTES: UNLESS OTHERWISE SPECIFIED**

USED ON	NEXT ASSY	APPLICATION	THIRD ANGLE PROJECTION USA
<p>UNLESS OTHERWISE SPECIFIED:                  INTERPRET DIM &amp; 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.</p>			
<p>UNLESS OTHERWISE SPECIFIED:                  DIMENSIONS ARE IN INCHES.                  DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS.                  TOLERANCES ARE:                  INCHES METRIC ANGLES                  .XX <math>\pm</math> .03 X <math>\pm</math> 0.8 <math>\pm</math> 1°                  .XXX <math>\pm</math> .010 .XX <math>\pm</math> 0.25</p>			
<p>MATERIAL</p>			
<p>FINISH</p>			
<p>DO NOT SCALE DRAWING</p>			

CONTRACT NO.	
APPROVALS	DATE
ORIG AB	12/26/12
CHK DV	09/08/15
APP RT	09/08/15
APP	

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

TITLE: **OUTLINE/INSTALLATION DRAWING, 1210V SERIES**

SIZE <b>A</b>	CAGE CODE <b>2W033</b>	DWG. NO. <b>127-1210V</b>	REV <b>B</b>
SCALE: NONE	SOLIDWORKS	SHEET 1 OF 1	



- RING STYLE FORCE SENSOR
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

**PHYSICAL**

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

ENGLISH		SI	
3.00	oz	85.00	grams
1.58	Inches	40.13	mm
0.83	Inches	21.08	mm
0.51	Inches	12.95	mm
10-32		10-32	
Stainless steel		Stainless steel	
Stainless steel		Stainless steel	
Case grounded		Case grounded	
Quartz		Quartz	
Compression		Compression	

**PERFORMANCE**

Sensitivity, ± 15 %	0.08	mV/Lb
Range, Full Scale	60,000	Lbs.Force
Maximum Force	70,000	Lbs.Force
Maximum Unloaded Vibration	2,000	g's, Peak
Linearity [2]	± 1	% Full Scale
Resonant Frequency, No Load	75	kHz
Stiffness	160	Lb/μin
Output Polarity for Compression Force	Positive	
Preload	2000	Lbs.Force

0.02	mV/N
266.89	kN
311.38	kN
19,600	m/s <sup>2</sup> Peak
± 1	% Full Scale
75	kHz
27.72	kN/μm
Positive	
8.90	kN

**ENVIRONMENTAL**

Coefficient Of Thermal Sensitivity	0.03	%/°F
Operating Temperature	-60 to +250	°F
Environmental Seal	Hermetic	
Insulation Resistance	1	TΩ

0.06	%/°C
-51 to +121	°C
Hermetic	
1	TΩ

**ELECTRICAL**

Discharge TC	>2000	sec
Full Scale Output	5	Volts
Supply Current	2-20	mA
Compliance Voltage	18-30	VDC
Bias Voltage	7.5-11.5	VDC
Output Impedance	<100	Ω
Resolution	0.86	Lb

>2000	sec
5	Volts
2-20	mA
18-30	VDC
7.5-11.5	VDC
<100	Ω
3.83	kN

**This family also includes:**

Model	Sensitivity (mV/Lb)	Range (Lbs.Force)	Max.Force (Lbs.Force)	Oper. Temp(°F)
1210V1	1.00	5,000	10,000	-60 to +250
1210V2	0.50	10,000	15,000	-60 to +250
1210V3	0.25	20,000	25,000	-60 to +250
1210V4	0.13	40,000	50,000	-60 to +250
1210V6	0.06	80,000	90,000	-60 to +250
1210V7	0.05	100,000	110,000	-60 to +250

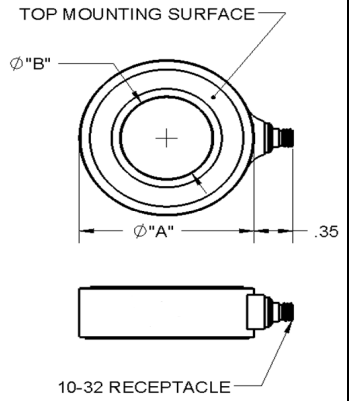
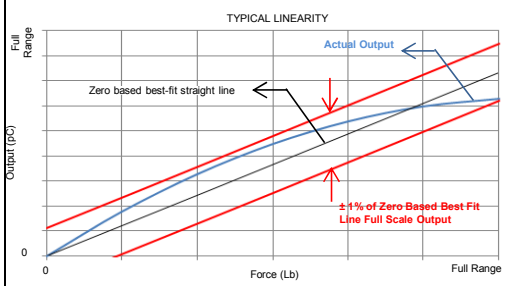
Please, refer to the performance specifications of the products in this family for detailed description

**Supplied Accessories:**

- 1) Accredited calibration certificate (ISO 17025)
- 2) Use supplied washer for top mounting surface (Model # 6901)

**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
1210V1	0.65 [16.51]	0.26 [6.6]	0.31 [7.87]
1210V2	0.87 [22.09]	0.41 [10.41]	0.39 [9.90]
1210V3	1.10 [27.94]	0.54 [13.72]	0.41 [10.41]
1210V4	1.34 [34.06]	0.66 [16.76]	0.46 [11.68]
1210V5	1.58 [40.13]	0.83 [21.08]	0.49 [12.45]
1210V6	2.05 [52.07]	1.03 [26.16]	0.56 [14.22]
1210V7	2.95 [74.93]	1.61 [40.89]	0.64 [16.26]

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

