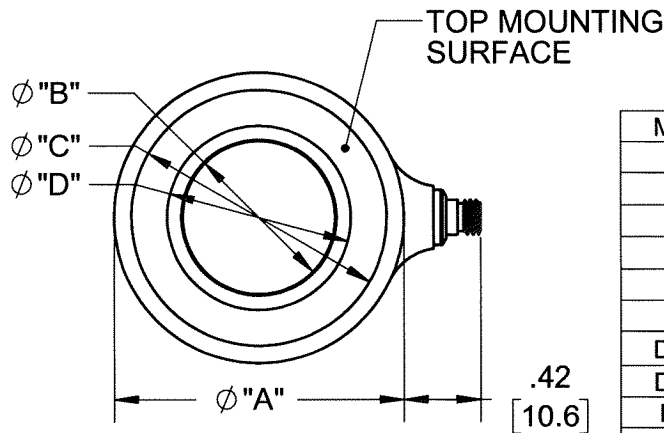


**PROPRIETARY AND CONFIDENTIAL**

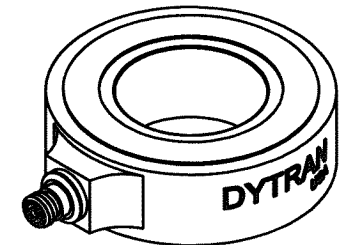
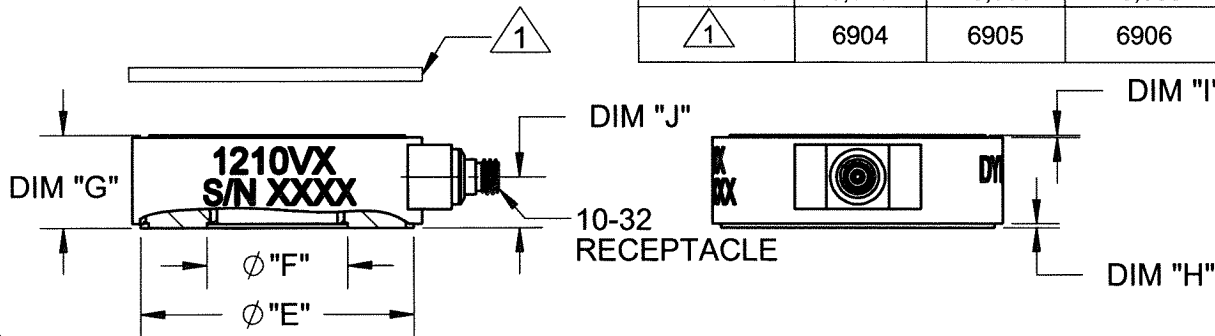
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**REVISIONS**

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	LN
C	14189	SEE ECN	RA, 05/07/18	EM	LN



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]	.52 [13.2]	.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]	1.86 [47.3]	2.73 [69.3]
$\phi$ "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]
$\phi$ "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]	.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 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**

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.	
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.	

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		
MATERIAL		
FINISH		
DO NOT SCALE DRAWING		

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



**MASTER COPY 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>C</b>
SCALE: NONE		SOLIDWORKS	SHEET 1 OF 1



- RING STYLE FORCE SENSOR
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

**PHYSICAL**

Weight, Max Size		Outer Dia		oz		Inches	
Connector [1]		Type		Inches		Inches	
Housing		Material					
Sensing Element		Material					
		Isolation 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 %		mV/Lb		kN	
Range, Full Scale		Lbs.Force		kN	
Maximum Force		Lbs.Force		kN	
Maximum Unloaded Vibration		g's, Peak		m/s <sup>2</sup> Peak	
Linearity [2]		% Full Scale		% Full Scale	
Resonant Frequency, No Load		kHz		kHz	
Stiffness		Lb/μin		kN/μm	
Output Polarity for Compression Force		Positive		Positive	
Preload		Lbs.Force		kN	

0.08	mV/Lb	0.02	mV/N
60,000	Lbs.Force	266.89	kN
70,000	Lbs.Force	311.38	kN
2,000	g's, Peak	19,600	m/s <sup>2</sup> Peak
± 1	% Full Scale	± 1	% Full Scale
75	kHz	75	kHz
160	Lb/μin	27.72	kN/μm
Positive		Positive	
2000	Lbs.Force	8.90	kN

**ENVIRONMENTAL**

Coefficient Of Thermal Sensitivity		%/°F		%/°C	
Operating Temperature		°F		°C	
Environmental Seal					
Insulation Resistance		TΩ		TΩ	

0.03	%/°F	0.06	%/°C
-60 to +250	°F	-51 to +121	°C
Hermetic		Hermetic	
1	TΩ	1	TΩ

**ELECTRICAL**

Discharge TC		sec		sec	
Full Scale Output		Volts		Volts	
Supply Current		mA		mA	
Compliance Voltage		VDC		VDC	
Bias Voltage		VDC		VDC	
Output Impedance		Ω		Ω	
Resolution		Lb		kN	

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

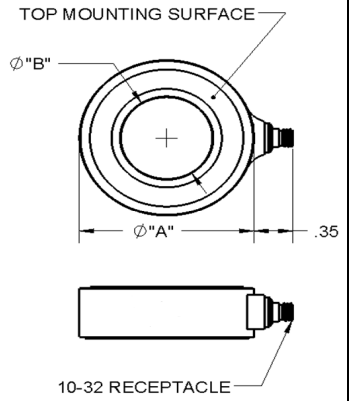
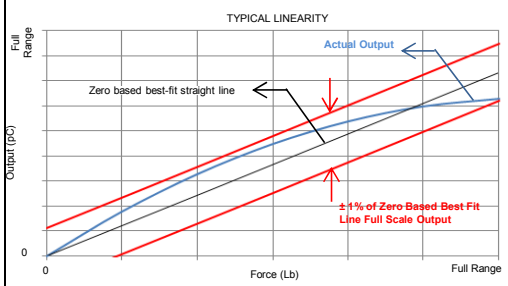
Please, refer to the performance specifications of the products in this family for detailed description

**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.

