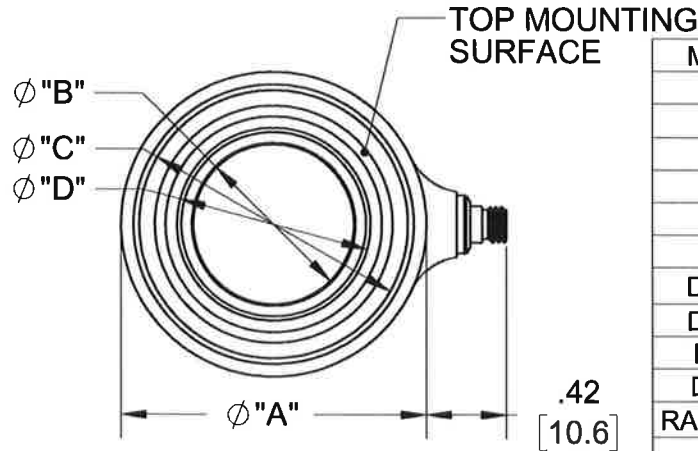


PROPRIETARY AND CONFIDENTIAL

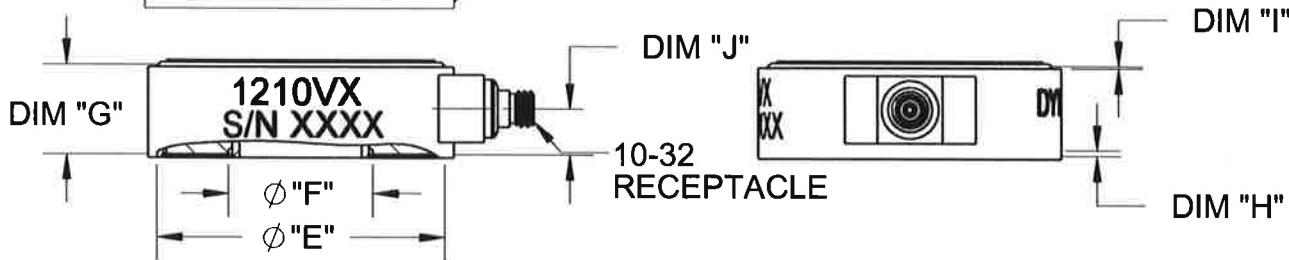
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REVISIONS

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



MODEL	1210V1	1210V2	1210V3	1210V4	1210V5	1210V6	1210V7
ϕ "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]
ϕ "B"	.26 [6.6]	.41 [10.4]	.54 [13.7]	.66 [16.8]	.83 [21.1]	1.03 [26.2]	1.61 [40.9]
ϕ "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]
ϕ "D"	.35 [8.89]	.52 [13]	.65 [16.5]	.82 [20.8]	1.00 [25.4]	1.22 [30.9]	1.85 [47]
ϕ "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]
ϕ "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	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.
APPLICATION		
THIRD ANGLE PROJECTION USA		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS. TOLERANCES ARE: INCHES METRIC ANGLES .XX \pm .03 X \pm 0.8 \pm 1° .XXX \pm .010 .XX \pm 0.25
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 AB	12/26/12
CHK DV	09/08/15
APP RT	09/08/15
APP	

MASTER ONLY IF IN RED
 Chatsworth, CA

DYTRAN INSTRUMENTS, INC.

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

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

	Force Sensors, Voltage Mode	REV B, ECN 12431, 01/06/16
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- RING STYLE FORCE SENSOR
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

PHYSICAL

		ENGLISH		SI	
Weight, Max Size		13.10	oz	372.00	grams
	Outer Dia	2.95	Inches	74.93	mm
	Inner Dia	1.61	Inches	40.89	mm
	Thickness	0.67	Inches	17.02	mm
Connector [1]	Type	10-32		10-32	
	Material	Stainless steel		Stainless steel	
Housing	Material	Stainless steel		Stainless steel	
	Isolation	Case grounded		Case grounded	
Sensing Element	Material	Quartz		Quartz	
	Mode	Compression		Compression	

PERFORMANCE

Sensitivity, ± 15 %	0.05	mV/Lb	0.01	mV/N
Range, Full Scale	100,000	Lbs.Force	444.82	kN
Maximum Force	110,000	Lbs.Force	489.30	kN
Maximum Unloaded Vibration	2,000	g's,Peak	19,600	m/s ² Peak
Linearity [2]	± 3	% Full Scale	± 3	% Full Scale
Resonant Frequency., No Load	75	kHz	75	kHz
Stiffness	160	Lb/μin	27.72	kN/μm
Output Polarity for Compression Force	Positive		Positive	
Preload	2000	Lbs.Force	8.90	kN

ENVIRONMENTAL

Coefficient Of Thermal Sensitivity	0.03	%/°F	0.06	%/°C
Operating Temperature	-60 to +250	°F	-51 to +121	°C
Environmental Seal	Hermetic		Hermetic	
Insulation Resistance	1	TΩ	1	TΩ

ELECTRICAL

Discharge TC	>2000	sec	>2000	sec
Full Scale Output	5	Volts	5	Volts
Supply Current	2-20	mA	2-20	mA
Compliance Voltage	18-30	VDC	18-30	VDC
Bias Voltage	7.5-11.5	VDC	7.5-11.5	VDC
Output Impedance	<100	Ω	<100	Ω
Resolution	1.4	Lb	6.23	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
1210V5	0.08	60,000	90,000	-60 to +250
1210V6	0.06	80,000	90,000	-60 to +250

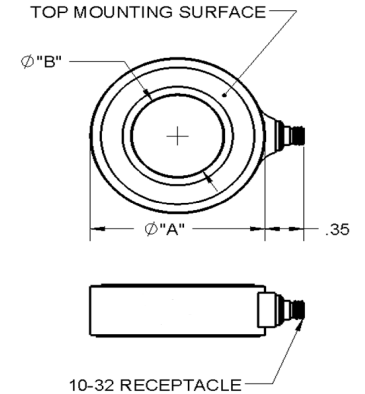
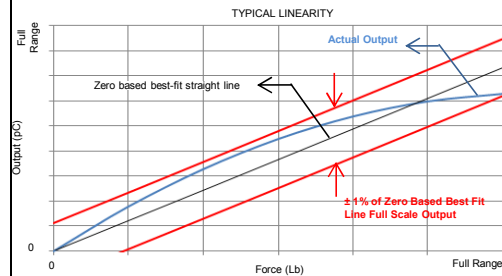
Please, refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Use supplied washer for top mounting surface (Model # 6909)

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.

