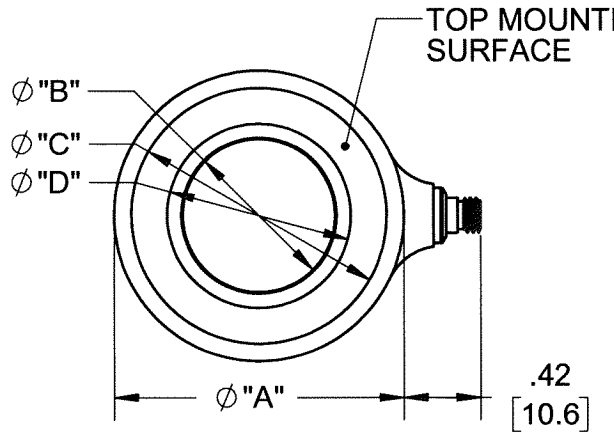
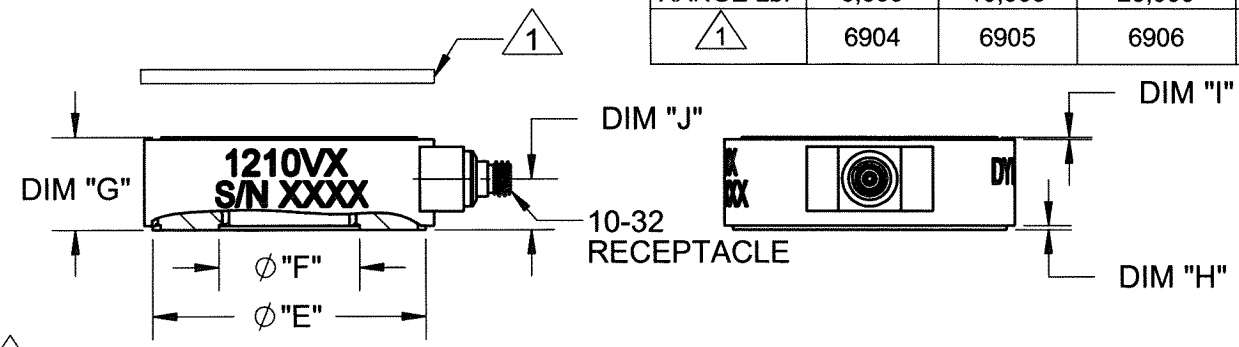
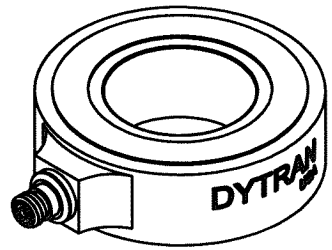
REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	9467	INITIAL RELEASE	JS 08/27/15	DV	RT
B	12444	1210V1 ∅ "B" WAS: .28 [7.1]	JS 01/18/16	LA	LN
C	14189	SEE ECN	RA, 05/07/18	EM	



MODEL	1210V1	1210V2	1210V3	1210V4	1210V5	1210V6	1210V7
∅"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]
∅"B"	.26 [6.6]	.41 [10.4]	.52 [13.2]	.66 [16.8]	.83 [21.1]	1.03 [26.2]	1.61 [40.9]
∅"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]
∅"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]
∅"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]
∅"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
1	6904	6905	6906	6907	6901	6908	6909





1 USE APPROPRIATE SUPPLIED WASHER ON TOP MOUNTING SURFACE.

NOTES: UNLESS OTHERWISE SPECIFIED

USED ON	NEXT ASSY
APPLICATION	

THIRD ANGLE PROJECTION USA

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.
63
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		

DYTRAN INSTRUMENTS, INC. Chatsworth, CA

TITLE:

OUTLINE/INSTALLATION DRAWING, 1210V SERIES

SIZE	CAGE CODE	DWG. NO.	REV
A	2W033	127-1210V	C

SCALE: NONE | SOLIDWORKS | SHEET 1 OF 1

Model Number 1210V6	PERFORMANCE SPECIFICATION	Doc No PS1210V6
	Force Sensors, Voltage Mode	REV A, ECN 9467, 08/27/15

- **RING STYLE FORCE SENSOR**
- **HERMETICALLY SEALED**
- **EXCELLENT LINEARITY**

		ENGLISH		SI	
PHYSICAL					
Weight, Max		5.90	oz	168.00	grams
Size	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]	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 %		0.06	mV/Lb	0.01	mV/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		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 Impdeance		<100	Ω	<100	Ω
Resolution		1.17	Lb	5.20	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
1210V7	0.05	100,000	110,000	-60 to +250

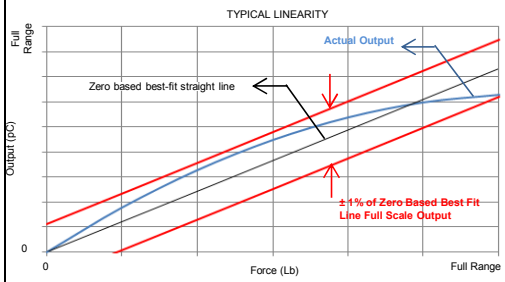
Please, refer to the performance specifications of the products in this family for detailed description

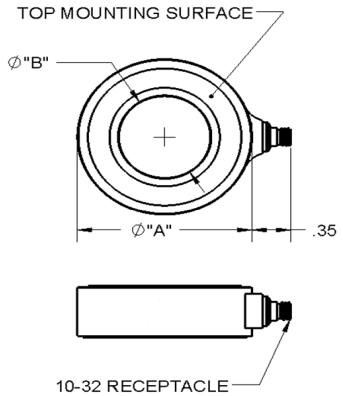
Supplied Accessories:

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

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