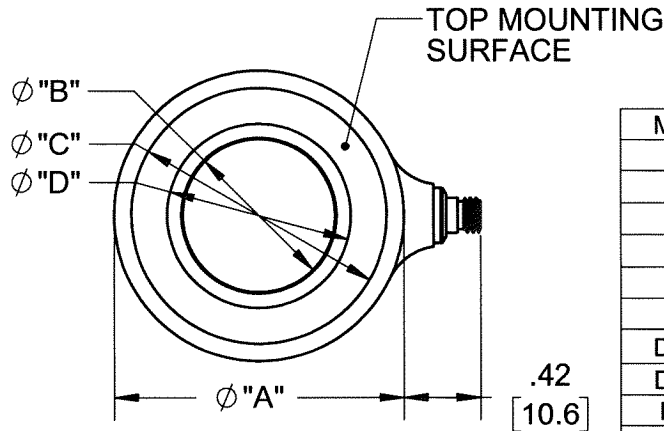


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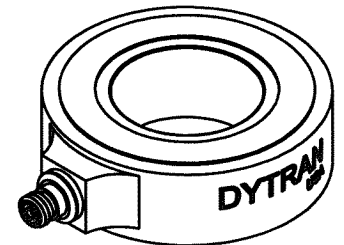
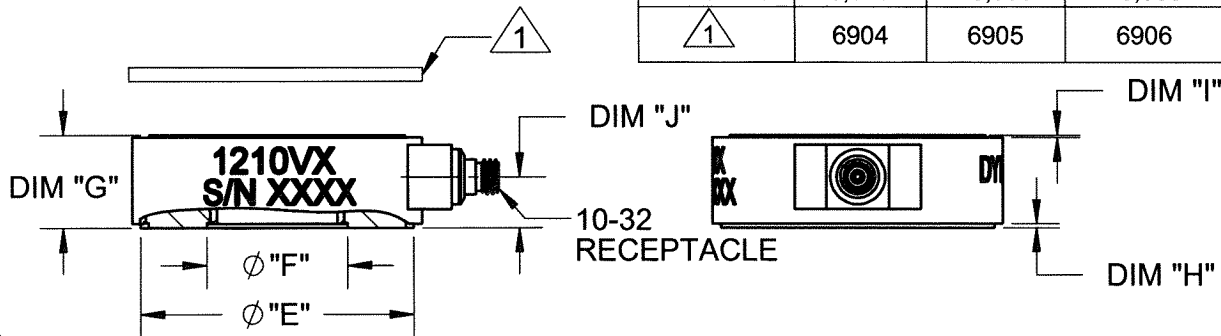
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REVISIONS

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



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]	.52 [13.2]	.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]	1.86 [47.3]	2.73 [69.3]
ϕ "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]
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]	.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		

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Chatsworth, CA

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

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

Model Number
1210V7

PERFORMANCE SPECIFICATION

Doc No
PS1210V7

Force Sensors, Voltage Mode

REV B, ECN 12431, 01/06/16



- RING STYLE FORCE SENSOR
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

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]	10-32	10-32	
Housing Material	Stainless steel	Stainless steel	
Sensing Element Material	Stainless steel	Stainless steel	
Isolation	Case grounded	Case grounded	
Sensing Element Material	Quartz	Quartz	
Mode	Compression	Compression	

PHYSICAL

Weight, Max Size

Outer Dia
Inner Dia
Thickness

Connector [1]

Housing

Sensing Element

PERFORMANCE

Sensitivity, ± 15 %

Range, Full Scale

Maximum Force

Maximum Unloaded Vibration

Linearity [2]

Resonant Frequency., No Load

Stiffness

Output Polarity for Compression Force

Preload

0.05	mV/Lb
100,000	Lbs.Force
110,000	Lbs.Force
2,000	g's,Peak
± 3	% Full Scale
75	kHz
160	Lb/μin
Positive	
2000	Lbs.Force

0.01	mV/N
444.82	kN
489.30	kN
19,600	m/s ² Peak
± 3	% Full Scale
75	kHz
27.72	kN/μm
Positive	
8.90	kN

ENVIRONMENTAL

Coefficient Of Thermal Sensitivity

Operating Temperature

Environmental Seal

Insulation Resistance

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

ELECTRICAL

Discharge TC

Full Scale Output

Supply Current

Compliance Voltage

Bias Voltage

Output Impedance

Resolution

>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
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

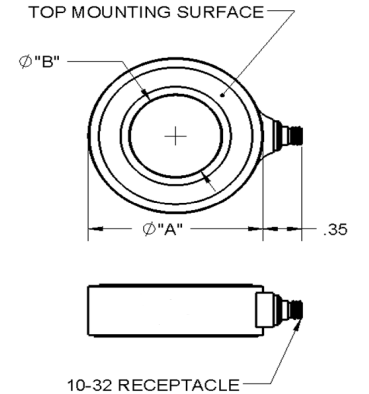
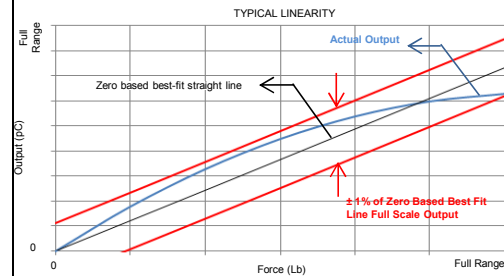
Please, refer to the performance specifications of the products in this family for detailed description

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.



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