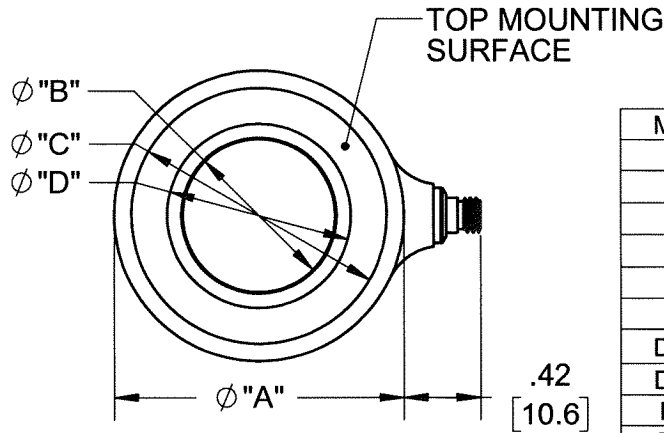


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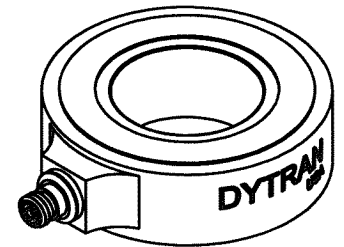
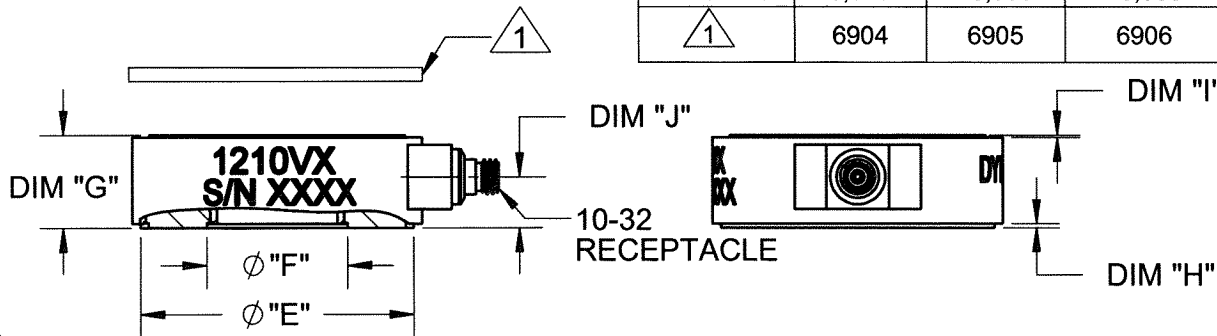
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REVISIONS

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

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



- RING STYLE FORCE SENSOR
- HERMETICALLY SEALED
- EXCELLENT LINEARITY

PHYSICAL

Weight, Max Size					
Connector [1]	Outer Dia	1.37	oz	39.00	grams
	Inner Dia	1.10	Inches	27.94	mm
	Thickness	0.52	Inches	13.21	mm
Housing	Material	0.43	Inches	10.92	mm
	Isolation	10-32		10-32	
Sensing Element	Material	Stainless steel		Stainless steel	
	Mode	Stainless steel		Stainless steel	
		Case grounded		Case grounded	
		Quartz		Quartz	
		Compression		Compression	

ENGLISH		SI	
Weight, Max Size	1.37 oz	39.00 grams	
Outer Dia	1.10 Inches	27.94 mm	
Inner Dia	0.52 Inches	13.21 mm	
Thickness	0.43 Inches	10.92 mm	
Connector [1]	10-32	10-32	
Housing	Stainless steel	Stainless steel	
Isolation	Stainless steel	Stainless steel	
Sensing Element	Case grounded	Case grounded	
Material	Quartz	Quartz	
Mode	Compression	Compression	

PERFORMANCE

Sensitivity, ± 15 %					
Range, Full Scale	0.25	mV/Lb	0.06	mV/N	
Maximum Force	20,000	Lbs.Force	88.96	kN	
Maximum Unloaded Vibration	25,000	Lbs.Force	111.21	kN	
Linearity [2]	2,000	g's, Peak	19,600	m/s ² Peak	
Resonant Frequency, No Load	± 1	% Full Scale	± 1	% Full Scale	
Stiffness	75	kHz	75	kHz	
Output Polarity for Compression Force	160	Lb/μin	27.72	kN/μm	
Preload	Positive		Positive		
	2000	Lbs.Force	8.90	kN	

Sensitivity, ± 15 %	0.25 mV/Lb	0.06 mV/N	
Range, Full Scale	20,000 Lbs.Force	88.96 kN	
Maximum Force	25,000 Lbs.Force	111.21 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					
Operating Temperature	0.03	%/°F	0.06	%/°C	
Environmental Seal	-60 to +250	°F	-51 to +121	°C	
Insulation Resistance	Hermetic		Hermetic		
	1	TΩ	1	TΩ	

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					
Full Scale Output	>2000	sec	>2000	sec	
Supply Current	5	Volts	5	Volts	
Compliance Voltage	2-20	mA	2-20	mA	
Bias Voltage	18-30	VDC	18-30	VDC	
Output Impedance	7.5-11.5	VDC	7.5-11.5	VDC	
Resolution	<100	Ω	<100	Ω	
	0.28	Lb	1.25	kN	

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	0.28 Lb	1.25 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
1210V4	0.13	40,000	50,000	-60 to +250
1210V5	0.08	60,000	70,000	-60 to +250
1210V6	0.06	80,000	90,000	-60 to +250
1210V7	0.05	100,000	110,000	-60 to +250

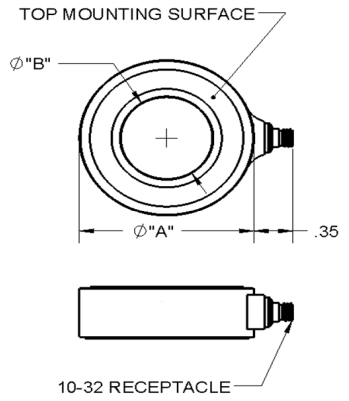
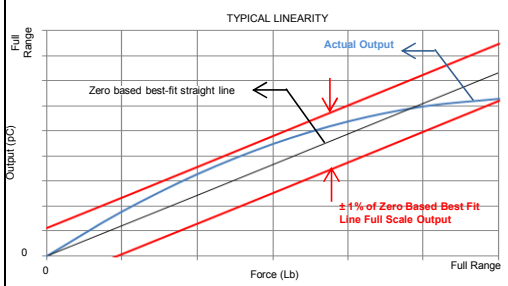
Please, refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Use supplied washer for top mounting surface (Model # 6906)

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.

