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MODEL	SENSITIVITY	RANGE
1212V1	2.5 mV/Lb	2000 Lb
1212V4	10 mV/Lb	500 Lb
1212V3	1 mV/Lb	5000 Lb

REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
B	11343	ADDED MOLDED STRAIN RELIEF	LN 10/01/14	DV	AS
C	11664	ADDED MODEL 1212V3	NDC 01/16/15	LN	RS

D

D

C

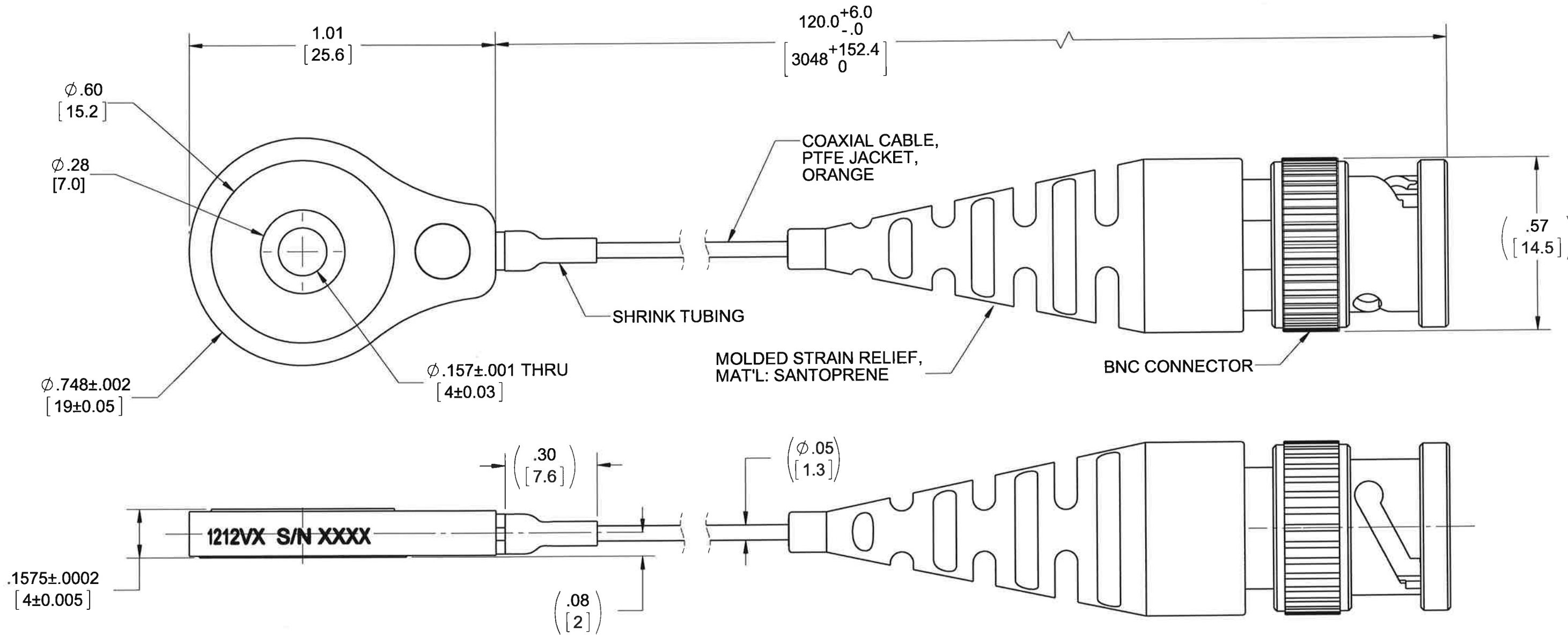
C

B

B

A

A



- 2. POSITIVE POLARITY ON COMPRESSION
 - 1. HOUSING MATERIAL: 304L STAINLESS STEEL
- 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.
 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.

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ± 0.8	±1°
.XXX ±.010	.XX ±0.25	

APPROVALS DATE

ORIG	DV	05/21/13
CHK	DV	03/28/14
APP	AS	03/28/14

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED:
 DIMENSIONS ARE IN INCHES.
 DIMENSIONS IN BRACKETS () ARE IN MILLIMETERS TOLERANCES ARE:

DYTRAN INSTRUMENTS, INC. Chatsworth, CA
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TITLE: **OUTLINE/INSTALLATION DRAWING, MODEL 1212V1**

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-1212V1	C

SCALE: 2:1 SHEET 1 OF 1

Model Number
1212V3

PERFORMANCE SPECIFICATION

Doc No
PS1212V3

Force Sensor, Voltage Mode

REV A, ECN 11664, 01/22/15



- RING STYLE FORCE SENSOR
- LOW PROFILE
- EXCELLENT LINEARITY

PHYSICAL

Weight, Max (less cable)
Connector [1]
Housing

Type
Material
Isolation
Material
Mode

Sensing Element

PERFORMANCE

Sensitivity, $\pm 15\%$
Range, Full Scale
Maximum Force
Maximum Unloaded Vibration
Linearity [2]
Resonant Frequency., No Load
Stiffness
Output Polarity for Compression Force
Preload

ENVIRONMENTAL

Coefficient Of Thermal Sensitivity
Operating Temperature
Environmental Seal

ELECTRICAL

Discharge TC
Full Scale Output
Supply Current
Compliance Voltage
Bias Voltage
Output Impedance
Resolution

ENGLISH		SI	
0.28	oz	8.0	grams
BNC		BNC	
Stainless Steel		Stainless Steel	
Case grounded		Case grounded	
Quartz		Quartz	
Compression		Compression	
1.0	mV/LbF	0.25	mV/N
5,000	LbF	22.24	kN
6,000	LbF	26.69	kN
2,000	g's, Peak	19,600	m/s ² Peak
± 1	% Full Scale	± 1	% Full Scale
75	kHz	75	kHz
160	Lb/ μ in	27.72	kN/ μ m
Positive		Positive	
5000	LbF	22.24	kN
0.03	%/ $^{\circ}$ F	0.06	%/ $^{\circ}$ C
-60 to +250	$^{\circ}$ F	-51 to +121	$^{\circ}$ C
Epoxy		Epoxy	
>2000	sec	>2000	sec
5.0	Volts	5.0	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
0.012	Lb	0.031	N

This family also includes:

Model	Sensitivity (mV/Lb)	Range (Lbs.Force)	Max.Force (Lbs.Force)	Oper. Temp($^{\circ}$ F)
1212V1	2.5	2,000	3,000	-60 to +250
1212V4	10	500	3,000	-60 to +250

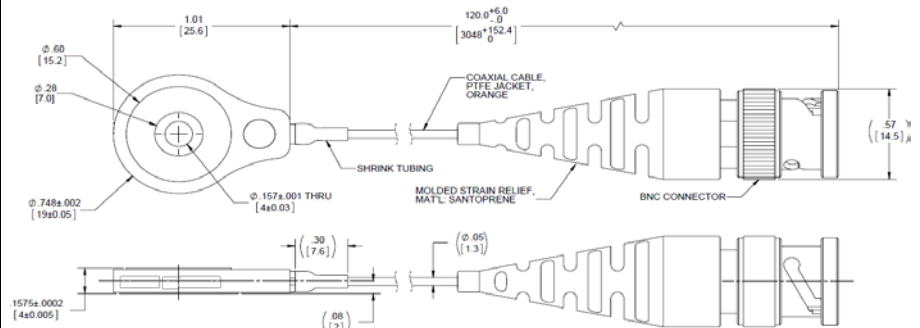
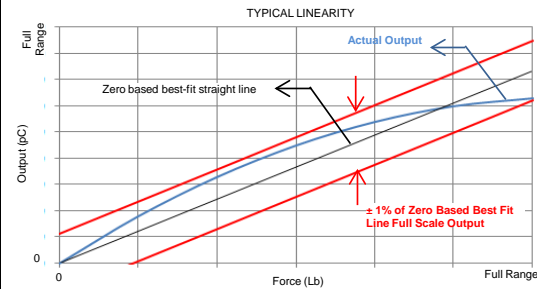
Please, refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)

Notes:

- [1] Integral cable to the sensor, 10 foot long with BNC connector
- [2] Percent of full scale or any lesser range, Zero based best-fit straight line method.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-1212V1 for more information.



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