

PROPRIETARY AND CONFIDENTIAL

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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

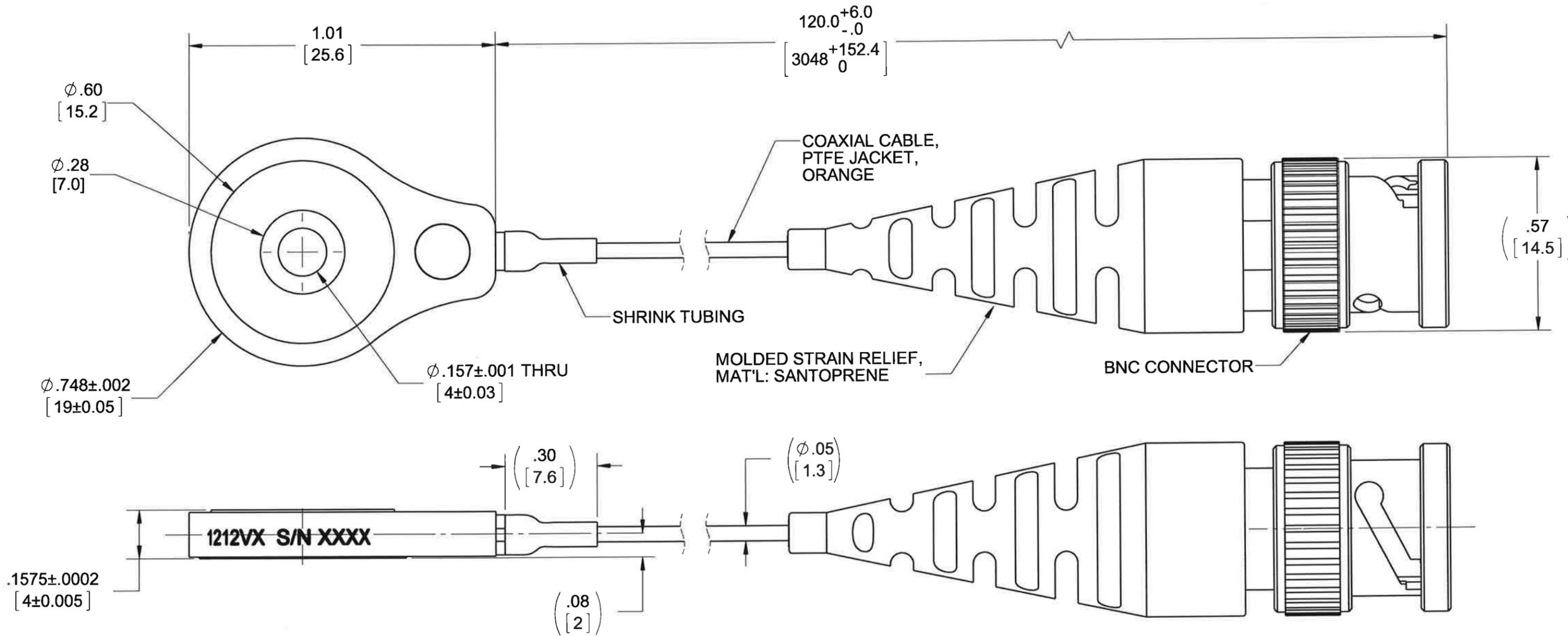
C

B

B

A

A



- 2. POSITIVE POLARITY ON COMPRESSION
  - 1. HOUSING MATERIAL: 304L STAINLESS STEEL
- NOTES: UNLESS OTHERWISE SPECIFIED

<small>UNLESS OTHERWISE SPECIFIED: INTERPRET DIM &amp; 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.</small>	<small>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS IN BRACKETS ( ) ARE IN MILLIMETERS TOLERANCES ARE:</small>														
	<small>DECIMALS .XX ±.03 .XXX ±.010</small>	<small>METRIC .X ± 0.8 .XX ±0.25</small>	<small>ANGLES ±1°</small>	<b>TITLE: OUTLINE/INSTALLATION DRAWING, MODEL 1212V1</b>											
	<table border="1"> <thead> <tr> <th>APPROVALS</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>ORIG DV</td> <td>05/21/13</td> </tr> <tr> <td>CHK DV</td> <td>03/28/14</td> </tr> <tr> <td>APP AS</td> <td>03/28/14</td> </tr> </tbody> </table>	APPROVALS	DATE	ORIG DV	05/21/13	CHK DV	03/28/14	APP AS	03/28/14	<small>THIRD ANGLE PROJECTION USA</small>		<small>SIZE B</small>	<small>CAGE CODE 2W033</small>	<small>DWG NO 127-1212V1</small>	<small>REV C</small>
	APPROVALS	DATE													
ORIG DV	05/21/13														
CHK DV	03/28/14														
APP AS	03/28/14														
<small>DO NOT SCALE DRAWING</small>		<small>SCALE: 2:1</small>	<small>SHEET 1 OF 1</small>												

	<b>Force Sensor, Voltage Mode</b>	REV C, ECN 11664, 01/20/15
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- RING STYLE FORCE SENSOR
- LOW PROFILE
- EXCELLENT LINEARITY

**PHYSICAL**

Weight, Max (less cable)	Type				
Connector [1]	Material				
Housing	Isolation				
Sensing Element	Material				
	Mode				

ENGLISH		SI	
0.28	oz	8.0	grams
BNC		BNC	
Stainless Steel		Stainless Steel	
Case grounded		Case grounded	
Quartz		Quartz	
Compression		Compression	

**PERFORMANCE**

Sensitivity, ± 15 %	2.5	mV/LbF	0.62	mV/N
Range, Full Scale	2,000	LbF	8.90	kN
Maximum Force	3,000	LbF	13.34	kN
Maximum Unloaded Vibration	2,000	g's, Peak	19,600	m/s <sup>2</sup> 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	5000	LbF	22.24	kN

0.03	%/°F	0.06	%/°C
-60 to +250	°F	-51 to +121	°C
Epoxy		Epoxy	

**ENVIRONMENTAL**

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

**ELECTRICAL**

Discharge TC	>2000	sec	>2000	sec
Full Scale Output	5.0	Volts	5.0	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	0.012	Lb	0.031	N

1575±.0002	(.08)	(.30)	(.05)
	(.08)	(.30)	(.05)

**This family also includes:**

Model	Sensitivity (mV/Lb)	Range (Lbs.Force)	Max.Force (Lbs.Force)	Oper. Temp(°F)
1212V3	1.0	5,000	6,000	-60 to +250
1212V4	10	500	3,000	-60 to +250

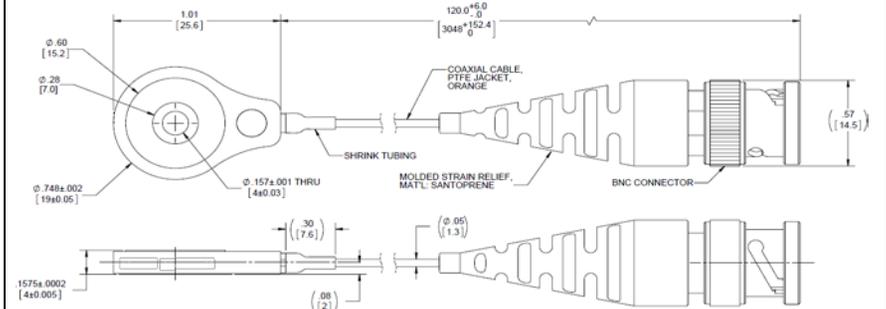
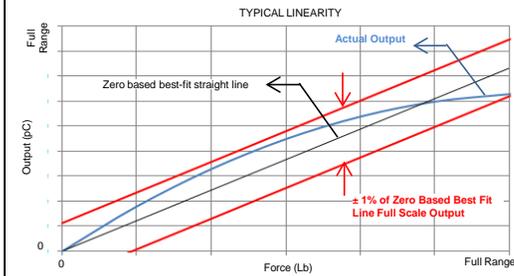
Please, refer to the performance specifications of the products in this family for detailed description

**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.

