

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

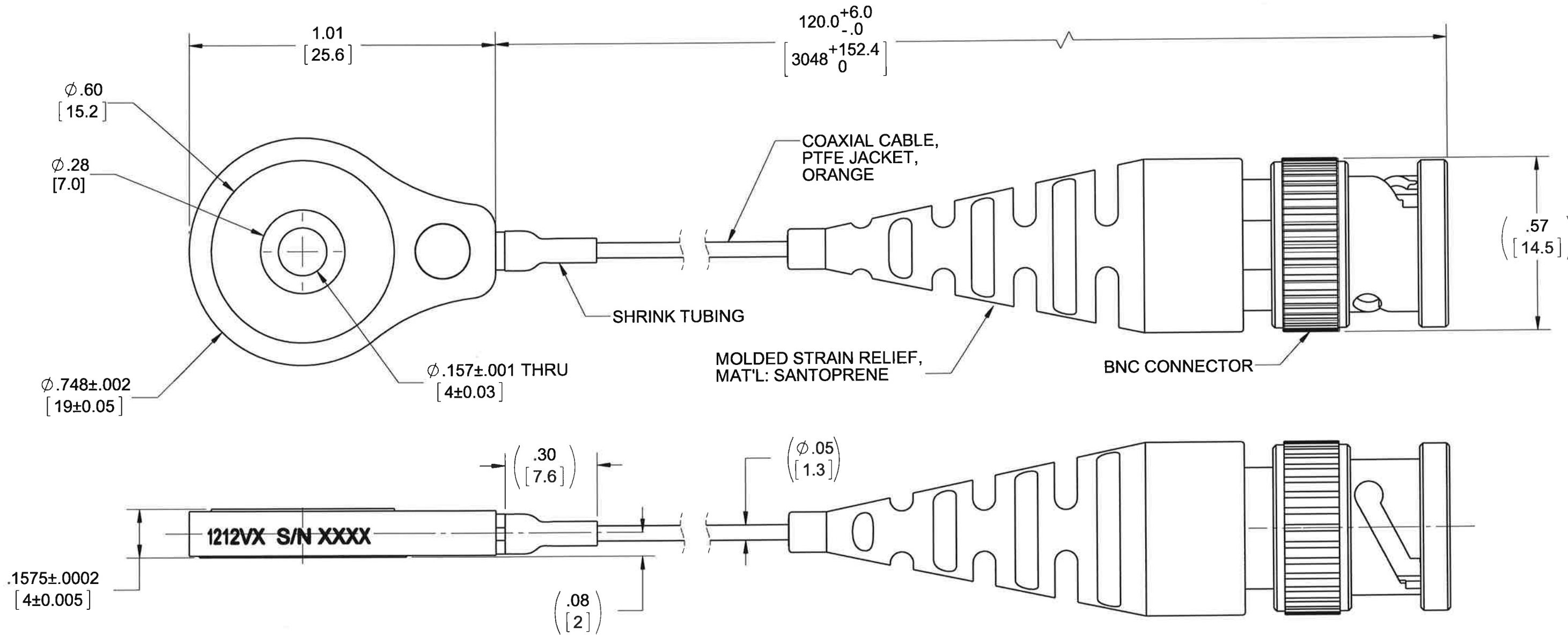
C

B

B

A

A



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

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.	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES DIMENSIONS IN BRACKETS () ARE IN MILLIMETERS TOLERANCES ARE:				
	DECIMALS .XX ± .03 .XXX ± .010	METRIC .X ± 0.8 .XX ± 0.25	ANGLES ± 1°	TITLE: OUTLINE/INSTALLATION DRAWING, MODEL 1212V1	
	APPROVALS ORIG DV 05/21/13 CHK DV 03/28/14 APP AS 03/28/14	DATE 05/21/13 03/28/14 03/28/14	SIZE B	CAGE CODE 2W033	DWG NO 127-1212V1
	DO NOT SCALE DRAWING		SCALE: 2:1	REV C	SHEET 1 OF 1

Force Sensor, Voltage Mode

REV C, ECN 11664, 01/20/15



- RING STYLE FORCE SENSOR
- LOW PROFILE
- EXCELLENT LINEARITY

ENGLISH	SI
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PHYSICAL					
Weight, Max (less cable)	Type	0.28	oz	8.0	grams
Connector [1]	Material	BNC		BNC	
Housing	Isolation	Stainless Steel		Stainless Steel	
Sensing Element	Material Mode	Case grounded		Case grounded	
		Quartz		Quartz	
		Compression		Compression	

PERFORMANCE					
Sensitivity, ± 15 %		10	mV/LbF	2.47	mV/N
Range, Full Scale		500	LbF	2.22	kN
Maximum Force		3,000	LbF	13.34	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		5000	LbF	22.24	kN

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	

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

This family also includes:

Model	Sensitivity (mV/Lb)	Range (Lbs.Force)	Max.Force (Lbs.Force)	Oper. Temp(°F)
1212V1	2.5	2,000	3,000	-60 to +250
1212V3	1.0	5,000	6,000	-60 to +250

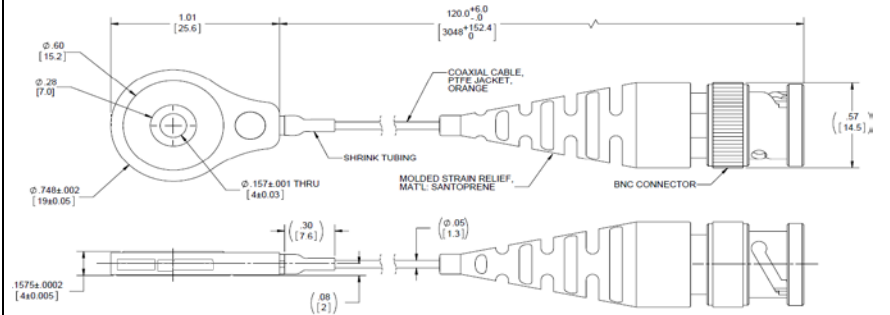
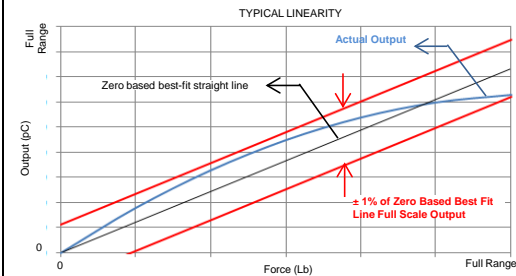
Please, refer to the performance specifications of the products in this family for detailed description

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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