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DWG NO 127-3168D2-XX

1

REV B

2

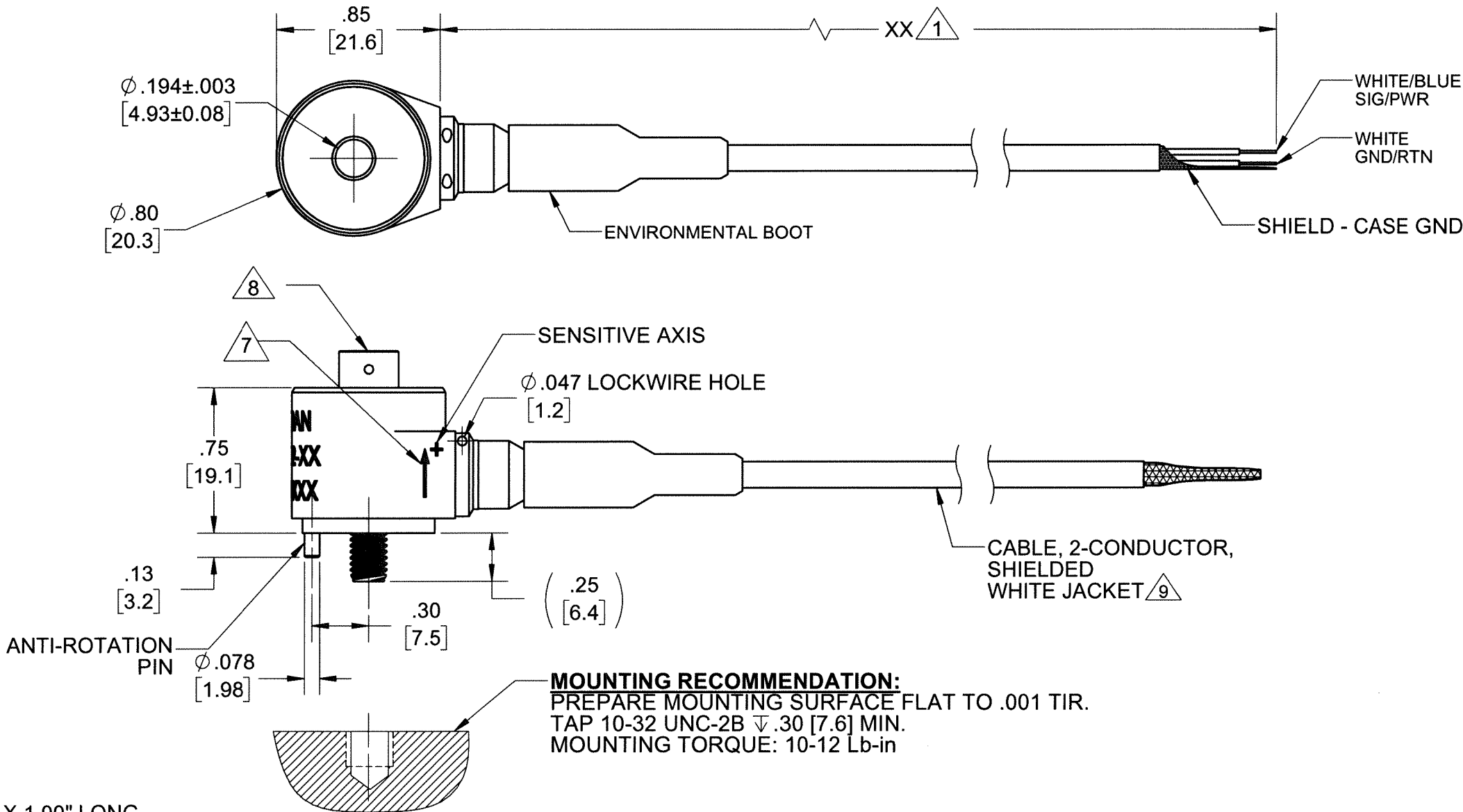
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REVISIONS

REV	ECN	DESCRIPTION	BY/DATE	CHK	APPR
A	14230	INITIAL RELEASE. SAME AS REV X1.	KG 05/16/18	LN	MH
B	14279	ADDED CABLE SPECIFICATION TABLE, NOTE 9 WHITE/BLUE SIG/PWR WAS: GND/RTN WHITE GND/RTN WAS: WHITE SIG/PWR	RA.06/14/18	KG	LW



- 9 SEE TABLE FOR CABLE SPECIFICATIONS.
- 8 MOUNTING SCREW MODEL 6543A3, 10-32 X 1.00" LONG, QTY. 1, SUPPLIED.
- 7 ARROW INDICATES ACCELERATION DIRECTION FOR POSITIVE OUTPUT.
6. OPERATING TEMPERATURE FOR ASSEMBLY: -67 TO 257°F.
- 5 DELETED
- 4 DELETED
3. HOUSING MATERIAL: 300 SERIES STAINLESS STEEL.
2. WEIGHT: 42 GRAMS MAX, (LESS CABLE).
- 1 PART NO. 3168D2-XX ("XX" DENOTES LENGTH IN FEET).
- 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	METRIC	ANGLES
.XX ± .03	.X ± 0.8	± 1°
.XXX ± .010	.XX ± 0.25	
APPROVALS		DATE
ORIG	LN	08/11/14
CHK	MH	05/17/18
APP	LN	05/17/18
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION USA



TITLE: OUTLINE/INSTALLATION DWG,
MECHANICALLY FILTERED ACCEL,
MODEL 3168D2-XX

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-3168D2-XX	B
SCALE: 1:1		SHEET 1 OF 2	

4

3

2

1

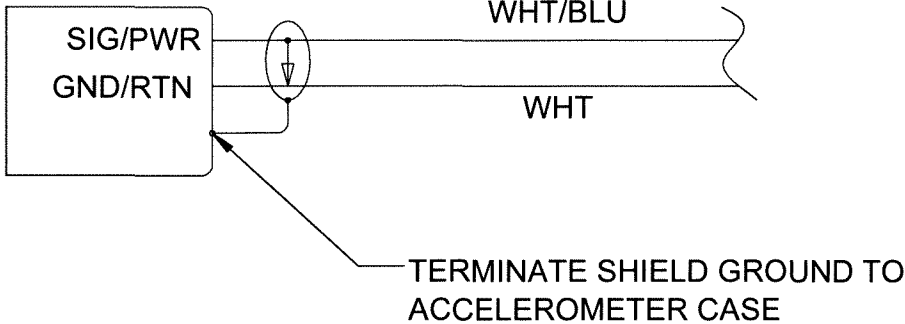
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1 CABLE LENGTH TOLERANCE

≤1FT	+1/ -0 IN
>1 FT - 5 FT	+2/ -0 IN
> 5 FT - 10 FT	+4/ -0 IN
>10 FT - 25FT	+6 / -0 IN
>25 FT	+5% / -0%

3168D2-XX
ACCELEROMETER
(REF)



ELECTRICAL SCHEMATIC

2-CONDUCTORS CABLE 9	
AWG	22-19/34 NICKEL PLATED COPPER
WIRE TYPE	MIL-W-22759/41
INSULATION MATERIAL	EXTRUDED XL-ETFE, (DOUBLE JACKET) OD .050" ±.002
SHIELD	38 AWG SILVER PLATED COPPER BRAID 90% COVER 30° ANGLE
JACKET	EXTRUDED WHITE IRRADITED TEFZEL® (XL-ETFE) .005 TO .010 WALL THICKNESS
DIAMETER	.140 ± .005
TEMPERATURE	200°C (WIRE RATED)
VOLTAGE	600 VOLTS



MASTER
ONLY IF IN RED

TITLE: OUTLINE/INSTALLATION DWG,
MECHANICALLY FILTERED
ACCEL, MODEL 3168D2-XX

SIZE B	CAGE CODE 2W033	DWG NO 127-3168D2-XX	REV B
SCALE: 1:1	PART NO: 3168D2-XX	SHEET 2 OF 2	

MODEL NUMBER		PERFORMANCE SPECIFICATION				DOC NO.	
3168D2-XX						PS3168D2-XX	
		ACCELEROMETER, IEPE, SINGLE AXIS				REV B, ECN 14279, 06/18/18	
		• RUGGED, LIGHTWEIGHT • MECHANICALLY AND ELECTRICALLY FILTERED • THROUGH HOLE MOUNT • CASE ISOLATED • HERMETICALLY SEALED					
		ENGLISH		SI			
PHYSICAL		1.5		42		grams	
Weight, Max. (Less Cable)		oz		300 Series S.S			
Housing		Case Isolated		Case Isolated			
Material Isolation							
PERFORMANCE		10		1.02		mV/ m/s ²	
Sensitivity +/- 5% [1]		mV/g		4903		m/s ² pk	
Range F.S. For ± 5 Volts Output		500		g pk			
Frequency Range, ± 3dB		1 to 10000		Hz		1 to 10000	
Resonant Frequency		> 40		kHz		> 40	
Mechanical Filter Resonance		> 13		kHz		> 13	
Linearity [2]		± 1		%F.S		± 1	
Transverse Sensitivity, Max.		5%		5%		5%	
Equivalent Electrical Noise Floor, Max.		0.007		grms		0.07	
Spectral Noise, Typ		1.25 Hz		0.0008		g/sqr(Hz)	
		10Hz		0.0002		g/sqr(Hz)	
		100Hz		0.00008		g/sqr(Hz)	
		1000Hz		0.00009		g/sqr(Hz)	
		10000Hz		0.00002		g/sqr(Hz)	
ENVIRONMENTAL		600		±gpk		5884	
Maximum Vibration		5000		±gpk		49033	
Maximum Shock		-67 to 257		°F		-55 to 125	
Temperature Range (Operational)		Hermetic		Hermetic		Hermetic	
Seal		0.0003		g/με		0.00294	
Base Strain Sensitivity		0.00035		g/Gauss		0.00004	
Magnetic sensitivity, Typ		2 to 10		mA		2 to 10	
ELECTRICAL		18 to 30		VDC		18 to 30	
Supply Current [3]		100		Ω		100	
Compliance Voltage Range		7.5 to 9.5		VDC		7.5 to 9.5	
Output Impedance, Typ		0.5 to 1.0		sec		0.5 to 1.0	
Bias Voltage		<4		sec		<4	
Discharge Time Constant		<50		μsec		<50	
Warm up Time		<1		%		<1	
Overload Recovery		10		GΩ		10	
Sensitivity Change Vs.Current		10		kHz		10	
Electrical Isolation, Min		10		kHz		10	
Electrical Filter Corner Frequency (2 pole)							