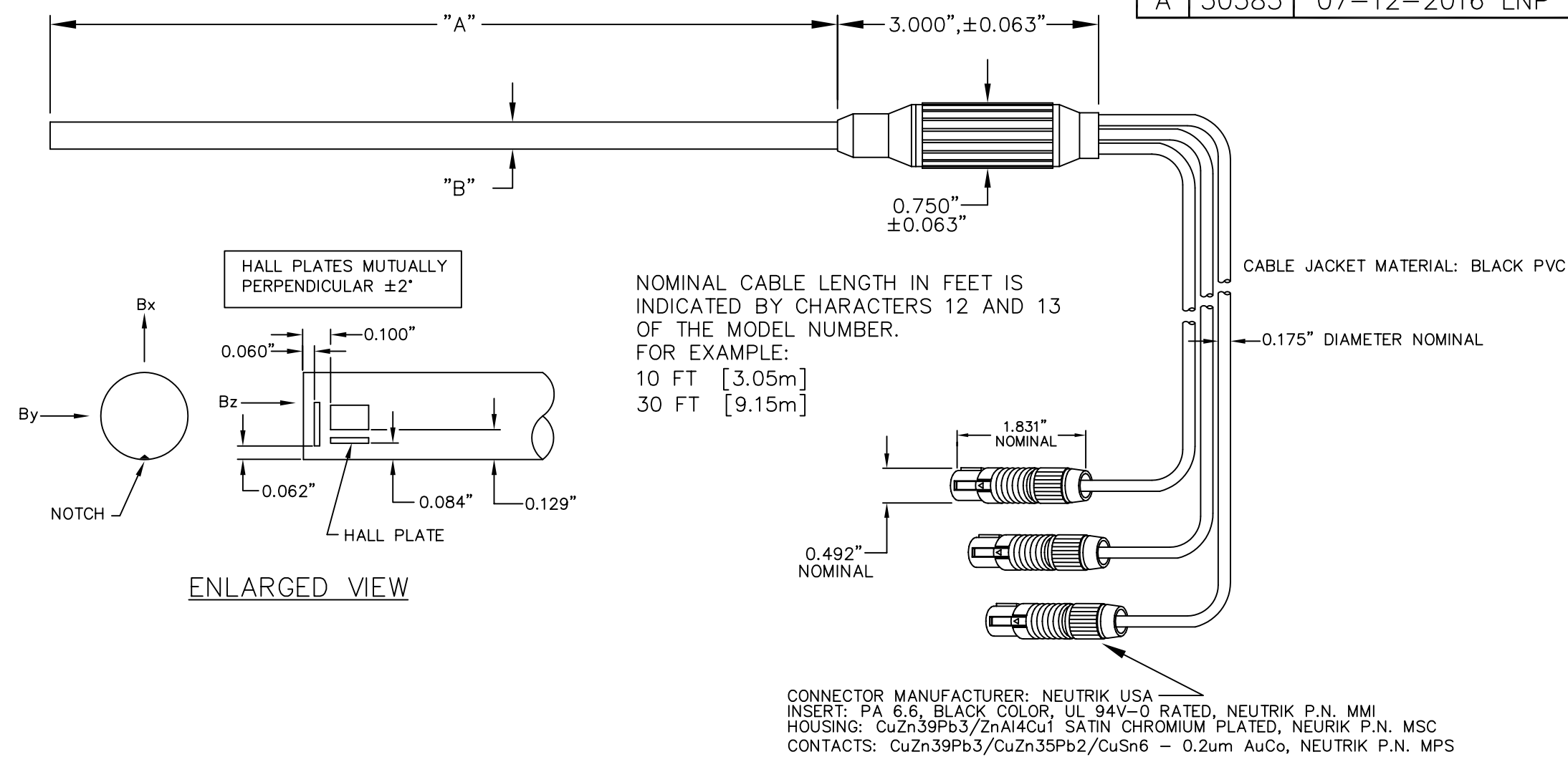


PART NUMBER	MODEL NUMBER	DIM. "A" STEM LENGTH
122343 122343-3	ZOA83-3208-10 ZOA83-3208-30	8.0" ±0.125"
122344 122344-3	ZOA83-3208-10-T ZOA83-3208-30-T	
122351-1 122351-2	ZOA83-3204-10 ZOA83-3204-10-T	4.0" ±0.125"
122351-3 122351-4	ZOA83-3204-30 ZOA83-3204-30-T	
122352-1 122352-2	ZOA83-3215-10 ZOA83-3215-10-T	15.0" ±0.125"
122352-3 122352-4	ZOA83-3215-30 ZOA83-3215-30-T	
122353-1 122353-2	ZOA83-3226-10 ZOA83-3226-10-T	26.0" ±0.125"
122353-3 122353-4	ZOA83-3226-30 ZOA83-3226-30-T	
122354-1 122354-2	ZOA83-3236-10 ZOA83-3236-10-T	36.0" ±0.125"
122354-3 122354-4	ZOA83-3236-30 ZOA83-3236-30-T	
122355-1 122355-2	ZOA83-3248-10 ZOA83-3248-10-T	48.0" ±0.125"
122355-3 122355-4	ZOA83-3248-30 ZOA83-3248-30-T	



NOTE: 8" models are the standard product. Others may have longer lead times.

MODEL NO.	NOMINAL CABLE LENGTH (FEET)	"B"	MATERIAL	CORRECTED LINEARITY AT DISPLAY	LINEARITY AT UNCORRECTED ANALOG OUTPUT	FREQUENCY RANGE	ACTIVE AREA	OPERATING TEMPERATURE RANGE	TEMPERATURE STABILITY		HALL DEVICE TYPE	TEMPERATURE COMPENSATED See Note 4.0
									ZERO	CAL		
ZOA83-32xx-10 ZOA83-32xx-30	10 30	0.312" ±0.005"	ALUMINUM 3003 3/4 F.H	0.25%/10kG  See Note 2.5	1.0%/10kG	DC - 400Hz	.060" DIA. (NOM) Each Axis	0°C TO +75°C	±0.1 GAUSS/°C	-0.04%/°C	YB-2053	NO
ZOA83-32xx-10-T ZOA83-32xx-30-T	10 30								±0.06 GAUSS/°C	-0.02%/°C		YES

**SPECIFICATIONS**

**1.0 GENERAL DESCRIPTION**

8000 SERIES 3-AXIS PROBES ARE PRECISION MAGNETIC FIELD SENSORS WHICH PROVIDE 3-AXIS FIELD MEASUREMENT CAPABILITY WHEN USED WITH F.W. BELL GAUSSMETERS. THREE (3) HALL ELEMENTS ARE MOUNTED MUTUALLY PERPENDICULAR TO EACH OTHER TO MEASURE THE X, Y AND Z COMPONENTS OF THE FIELD.

**2.0 ELECTRICAL AND PHYSICAL SPECIFICATIONS**

- 2.1 SPECIFICATION DETAILS : REFER TO TABLE.
- 2.2 ELECTRICAL SCHEMATIC : U2-6277
- 2.3 STORAGE TEMPERATURE RANGE : -55°C TO +100°C
- 2.4 WEIGHT : NET - 4 LBS  
SHIPPING - 10 LBS
- 2.5 PROBES WILL OPERATE AT HIGHER FIELD LEVELS BUT AT REDUCED ACCURACY (TYPICALLY <1% CORRECTED LINEARITY ERROR AT 20kG).

**3.0 CALIBRATION**

- 3.1 CALIBRATION IS REFERENCED TO A LABORATORY STANDARD MAGNET. THIS STANDARD IS MEASURED BY THE NUCLEAR MAGNETIC RESONANCE (NMR) TECHNIQUE WHICH IS BASED ON ACCEPTED VALUES OF NATURAL PHYSICAL CONSTANTS.
- 3.2 PROBES ARE CALIBRATED TO INDICATED ACCURACY OVER THE SPECIFIED GAUSS RANGE WHEN USED WITH THE APPROPRIATE F. W. BELL GAUSSMETER. USE BEYOND THESE RANGES WILL SHOW LINEARITY ERROR GREATER THAN THE SPECIFICATIONS.
- 3.3 GAUSSMETER ERRORS MUST BE ADDED TO PROBE ERRORS TO OBTAIN OVERALL MEASURING ACCURACY.

**4.0 TEMPERATURE COMPENSATION**

- 4.1 COMPENSATED PROBES CONTAIN A THERMISTOR TO MONITOR PROBE TIP TEMPERATURE. THE COMPENSATION IS PERFORMED BY THE GAUSSMETER FOR IMPROVED ACCURACY ON THE DISPLAY, COMMUNICATION BUS AND CORRECTED ANALOG OUTPUT. PERFORMANCE AT UNCORRECTED ANALOG OUTPUT IS SAME AS UNCOMPENSATED PROBE.

REF	QTY	ITEM NO.	DRAWING NO.	DESCRIPTION
UNLESS OTHERWISE SPECIFIED:		THIS DRAWING IS THE PROPERTY OF OECO/F.W. BELL AND MAY NOT BE COPIED, USED OR DISCLOSED FOR ANY PURPOSE EXCEPT AS AUTHORIZED IN WRITING BY OECO/F.W. BELL		
(DO NOT SCALE TO DWG)		FW. BELL		
SCALE	None	DRN	07-30-09 GG	TITLE SPECIFICATION, 3 AXIS 8000 SERIES PROBES
DEC±	.005	APPD	10-29-12 UAG	
FRAC±	-	QA APPD	10-26-12 JSS	
ANG±	-	REL	10-29-12 LNP	
SHT 1 OF 1				DWG NO. U1-6278
				REV A