

SPECIFICATIONS

GENERAL DESCRIPTION

1.0 THE MOS51-3204 LOW FIELD PROBE IS A MINIATURE FLUXGATE MAGNETOMETER WITH HIGH RESOLUTION USEFUL FOR INDICATION, MEASUREMENT, AND ANALYSIS OF WEAK MAGNETIC FIELDS WHEN UTILIZED WITH APPROPRIATE F.W. BELL, INC GAUSSMETER. BOTH STATIC D.C. AND TIME-VARYING FIELDS CAN BE MEASURED WITH A 1000 TIMES INCREASE IN SENSITIVITY COMPARED TO STANDARD 1X PROBE. BOTH AMPLITUDE AND FIELD DIRECTION CAN BE OBTAINED AS WELL AS MEASUREMENTS OF SMALL CHANGES IN MAGNETIC FIELDS OF LOW AMPLITUDE AND GENERAL NOISE FIELD APPLICATION. THE LOW FIELD PROBE IS DESIGNED FOR USE IN RELATIVELY UNIFORM, HOMOGENOUS MAGNETIC FIELDS (3 CU. FT. MIN) WHERE GRADIENTS ARE LOW WITH RESPECT TO PROBE DIMENSIONS.

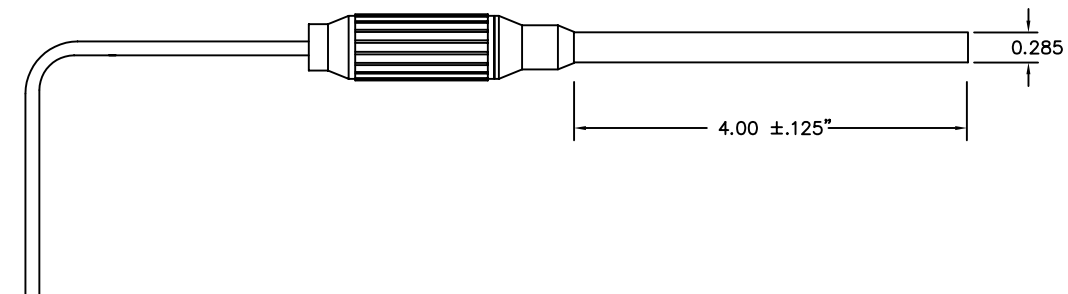
2.4 FREQUENCY RESPONSE - DC TO 750 Hz (-3dB point typical)
 2.5 STORAGE TEMPERATURE - 0° TO + 75° C
 2.6 WEIGHT - NET: 5 OZ
 SHIPPING: 1 LB

2.0 ELECTRICAL AND PHYSICAL SPECIFICATIONS

2.1 SENSITIVITY - PROBES FEATURE A 1000X SENSITIVITY INCREASE.
 2.2 PROBE RANGE - 0 TO ±1 GAUSS DC or peak AC
 2.3 LINEARITY - ±0.75 % OF READING

3.0 CALIBRATION

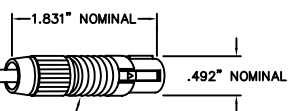
3.1 CALIBRATION IS REFERENCED TO A STANDARD LABORATORY SOLENOID COIL.
 3.2 PROBES ARE CALIBRATED TO INDICATED ACCURACY OVER THE SPECIFIED FIELD LEVELS WHEN USED WITH THE APPROPRIATE F. W. BELL GAUSSMETER. USE BEYOND THESE LEVELS WILL SHOW LINEARITY ERROR GREATER THAN THE SPECIFICATIONS.
 3.3 GAUSSMETER ERRORS MUST BE ADDED TO PROBE LINEARITY ERRORS TO OBTAIN OVERALL MEASURING ACCURACY.



CABLE JACKET MATERIAL: BLACK PVC

0.196" DIAMETER NOMINAL
 CABEL LENGTH = 5 FEET ± 1 INCH
 (1.5 METERS)

ACTIVE AREA	OP. TEMP RANGE	TEMP. STABILITY	
		ZERO	CAL
.024in ²	0°C TO +75°C	±0.001 GAUSS /°C	-0.05 %/°C



CONNECTOR MANUFACTURER: NEUTRIK USA
 INSERT: PA 6.6, BLACK COLOR, UL 94V-0 RATED, NEUTRIK P.N. MMI
 HOUSING: CuZn39Pb3/ZnAl4Cu1 SATIN CHROMIUM PLATED, NEUTRIK P.N. MSC
 CONTACTS: CuZn39Pb3/CuZn35Pb2/CuSn6 - 0.2um AuCo, NEUTRIK P.N. MPS

REF	QTY	ITEM NO.	DRAWING NO.	DESCRIPTION
UNLESS OTHERWISE SPECIFIED: DIMENSIONS IN INCHES (DO NOT SCALE TO DWG)		THIS DRAWING IS THE PROPERTY OF BELL TECHNOLOGIES, INC. AND MAY NOT BE COPIED, USED OR DISCLOSED FOR ANY PURPOSE EXCEPT AS AUTHORIZED IN WRITING BY BELL TECHNOLOGIES, INC.		F.W. BELL TITLE: SPECIFICATIONS, 5100 SERIES LOW FIELD PROBE
SCALE	NONE	DRN	12-13-04 GH	
DEC±	.025	APPD	04-05-05 JCR	SHT 1 OF 1 DWG NO. UA-6174 REV -
FRAC±	---	QA APPD	04-05-05 RMB	
ANG±	---	REL	04-05-05 GMR	