MPT-231

MINIATURE HIGH SENSITIVITY HALL PROBE

- **Very small sensitive area, small physical size.**
- **Ten times the sensitivity of MPT-141.**
- **High precision: ± 0.03% max. error at 25°C*.**
- **Low thermal drift: ±20ppm/°C max*.**
- **Low zero drift: ±0.01 gauss/°C max*.**
- **Calibration tables at 0, 25 and 50°C supplied with each probe.**

Specifications of system – MPT-231 with DTM-151 teslameter:

* contribution of probe only.

Orientation: Transverse, reads positive when field vector enters top epoxy surface

Field ranges: 0.03 0.06 0.12 0.3 tesla full-scale, 0.3 0.6 1.2 3.0 kilogauss full scale with polarity indication

Accuracy at 25°C: ±(0.03% of reading +0.006% of full scale) max.

Resolution - DC mode with digital filtering ON:

1 in 600,000 of bipolar span in front panel display.

range	display resolution		serial/GPIB resolution	
	gauss	tesla	gauss	tesla
0.03 tesla	0.001	0.0000001	0.0001	0.00000001
0.06 tesla	0.002	0.0000002	0.001	0.0000001
0.12 tesla	0.004	0.0000004	0.001	0.0000001
0.3 tesla	0.01	0.000001	0.001	0.0000001

Resolution - DC mode with digital filtering OFF, and AC mode:

1 in 120,000 of bipolar span in front panel display.

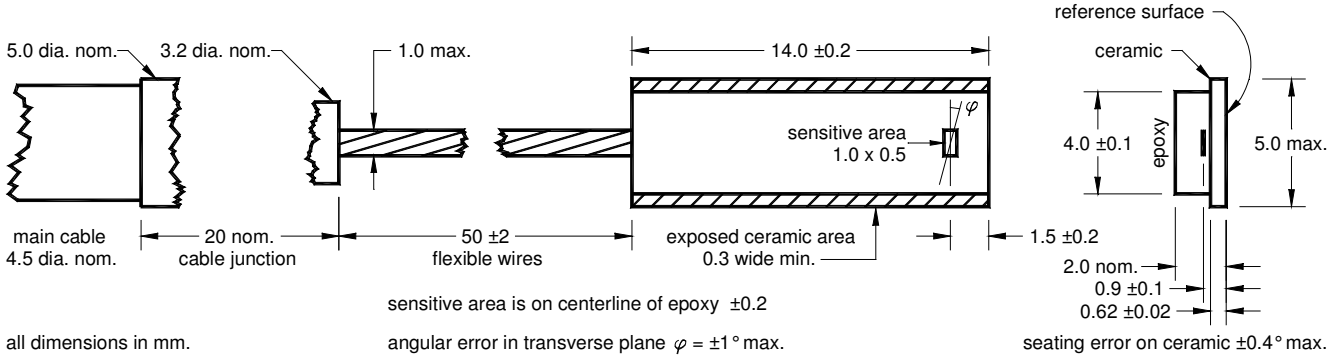
range	display resolution		serial/GPIB resolution	
	gauss	tesla	gauss	tesla
0.03 tesla	0.005	0.0000005	0.0001	0.00000001
0.06 tesla	0.01	0.000001	0.001	0.0000001
0.12 tesla	0.02	0.000002	0.001	0.0000001
0.3. tesla	0.05	0.000005	0.001	0.0000001

Temperature range: 0 to 50°C operating to spec, -20 to +60°C max.

Temperature stability: calibration: ±25ppm of reading/°C max. -3ppm/°C of reading per meter of probe cable
zero drift: ±(1µT + 0.0003% of full-scale)/°C max.

Probe dimensions: overall size: 14 x 5 x 2 mm sensitive area: 1 x 0.5mm
unshielded part of cable at probe head: 4.5mm diam. 300mm nom. length
shielded cable: 6.5mm diam.

Order code: MPT-231-2s for probe with basic 2 meter shielded cable.
Special probe cable lengths may be ordered up to 30 meters max.
Single-range probes: add range suffix –03 –06 –12 –30, e.g. MPT-231-03-2s.



sensitive area is on centerline of epoxy ±0.2

all dimensions in mm.

angular error in transverse plane φ = ±1° max.

seating error on ceramic ±0.4° max.

Group3 reserves the right to change the specifications at any time without notice.