

# MPT-231

## Hall Effect Probe

High Sensitivity with temperature compensation  
(Max. calibrated field is 0.3T or 3000 Gauss)

High Accuracy:  $\pm 0.03\%$  max. error at 25°C\*

Low thermal drift at  $\pm 20\text{ppm}/^\circ\text{C}$  max.\*

Low Zero Drift of  $\pm 0.01\text{G}/^\circ\text{C}$  max.\*

Calibration tables at 0, 25 and 50°C supplied

## Specifications

The MPT-231 Hall Effect Probe is most suitable to be use with a DTM-151 or DTM-152 Digital Teslameter.

Probe is calibrated up to 0.3 Tesla, bipolar. Temperature-compensated from 0 to 50°C. Transverse orientation, reads (+) when field vector enters the top epoxy surface.



\*Contribution of probe only

### Accuracy at 25°C:

$\pm 0.03\%$  of reading + 0.006% of full scale

### Operating Range:

4- Range Operation.

0.03, 0.06, 0.12, 0.3 Tesla Full Scale

300, 600, 1200, 3000 Gauss Full Scale

### Temperature Stability:

Calibration:  $\pm 25\text{ppm}$  of reading/ $^\circ\text{C}$  max.

- 3ppm/ $^\circ\text{C}$  of reading per meter of probe cable

Zero Drift:  $\pm (1\mu\text{T} + 0.0003\%$  of full scale)/ $^\circ\text{C}$  max.

### Temperature Range:

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

### ORDER CODE:

MPT-231-2S for probe with basic 2 meters shielded cable.

Special probe cable lengths may be ordered up to 30 meters.

For single range probes, add range suffix -03, -06, -12, -30

e.g. MPT-231-03-2S

### Probe Accessories:

MPT Transverse Probe Holder – Part No. 17000081

MPT Axial Probe Holder – Part No. 17000100

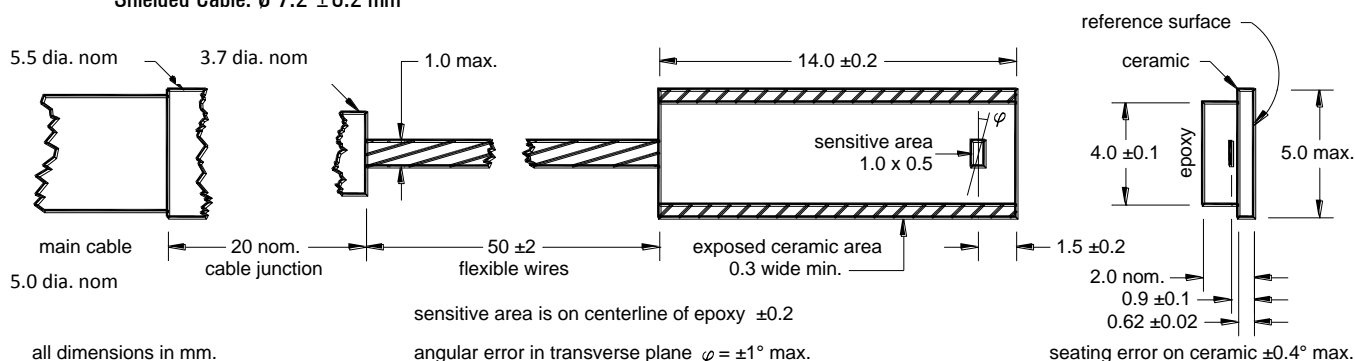
### Dimensions:

Probe Head Size: 14 x 5 x 2 mm

Sensitive Area: 1 x 0.5 mm

Unshielded part of cable at probe head:  $\varnothing 5.0 \pm 0.2$  mm, 300 mm nominal length

Shielded Cable:  $\varnothing 7.2 \pm 0.2$  mm



### Resolution using DTM-151 Digital Teslameter:

DC Mode with Digital Filtering ON

1 in 600,000 of bipolar scan in front of panel display

Range	Display resolution		Serial / GPIB Output Resolution	
	Gauss	Tesla	Gauss	Tesla
0.03	0.001	0.0000001	0.0001	0.00000001
0.06	0.002	0.0000002	0.001	0.0000001
0.12	0.004	0.0000004	0.001	0.0000001
0.3	0.01	0.000001	0.001	0.0000001

DC Mode with Digital Filtering OFF, and AC Mode,

1 in 120,000 of bipolar scan in front of panel display

Range	Display resolution		Serial / GPIB Output Resolution	
	Gauss	Tesla	Gauss	Tesla
0.03	0.005	0.0000005	0.0001	0.00000001
0.06	0.01	0.000001	0.001	0.0000001
0.12	0.02	0.000002	0.001	0.0000001
0.3	0.05	0.000005	0.001	0.0000001