

## HIGH SENSITIVITY HALL PROBE

- Ten times the sensitivity of LPT-141.
- High accuracy:  $\pm 0.03\%$  max. error at 25°C\*.
- Low thermal drift:  $\pm 20\text{ppm}/^\circ\text{C}$  max\*.
- Low zero drift:  $\pm 0.01$  gauss/ $^\circ\text{C}$  max\*.
- Calibration tables at 0, 25 and 50°C supplied with each probe.

\* contribution of probe only.

### Specifications of system – LPT-231 with DTM-151 teslameter:

Orientation Transverse, reads positive when field vector enters top aluminium surface  
 Field ranges 0.3 0.6 1.2 3.0 tesla full-scale, 3 6 12 30 kilogauss full scale with polarity indication, calibrated to  $\pm 2.2$  tesla,  $\pm 22,000$  gauss  
 Accuracy at 25°C  $\pm(0.01\%$  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:

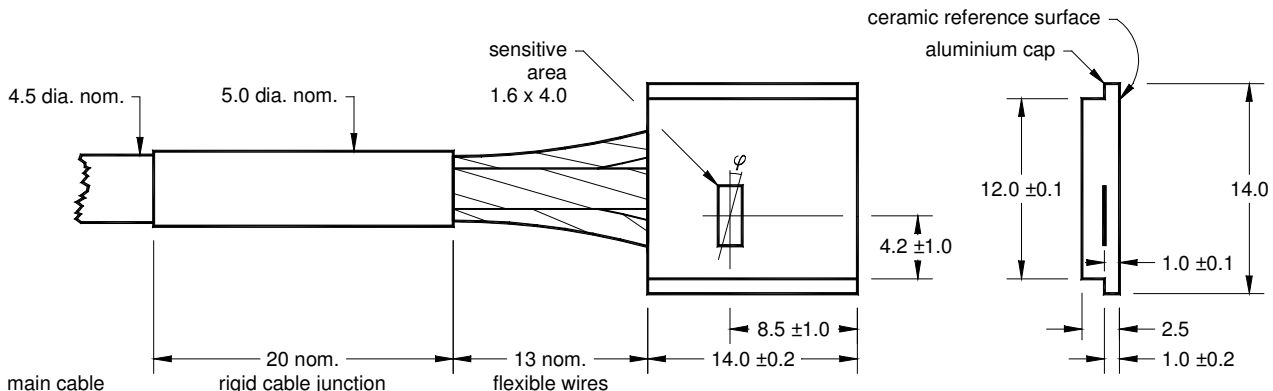
1 in 120,000 of bipolar span in front panel display.

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

Probe dimensions overall size: 14 x 14 x 2.5 mm sensitive area: 4 x 1.6 mm  
 unshielded part of cable at probe head: 4.5mm diam. 300mm nom. length  
 shielded cable: 6.5mm diam.

Order code LPT-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. LPT-231-03-2s.



all dimensions in mm. target error  $\pm 0.3\text{mm}$  angular error in transverse plane  $\varphi = \pm 1^\circ$  max. seating error on ceramic  $\pm 0.4^\circ$  max.

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