

3DT-231

3-Axis Hall Effect Probe

High Sensitivity, High Resolution,
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

* Contribution of probe



** Probe holder for representation only.

Specifications

The 3DT-231 Hall Effect Probe is designed for use with a DTM-351, 3-Channel, Digital Teslameter but may also be used with 3 units of DTM-151 (single channel teslameter).

Probe is calibrated up to 0.3 Tesla, bipolar. In 3-axis orientation reads positive (+) when field vector enters the top epoxy surface.

Accuracy at 25°C :

$\pm 0.03\%$ of reading + 0.006% of full scale with DTM-351 Digital Teslameter

Operating Range:

4- Range Operation.
0.03, 0.06, 0.12, 0.3 Tesla Full Scale
300, 600, 1200, 3000 Gauss Full Scale

ORDER CODE: 01560000

3DT-231-5S for probe with basic 5 meters shielded cable.
Special probe cable lengths may be ordered up to 30 meters.
Probe comes with a probe holder.

Temperature Stability:

Calibration: $\pm 25\text{ppm}$ of reading/ $^{\circ}\text{C}$ max.
- $3\text{ppm}/^{\circ}\text{C}$ 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 $+60^{\circ}\text{C}$ max.

Resolution using DTM-351 Digital Teslameter:

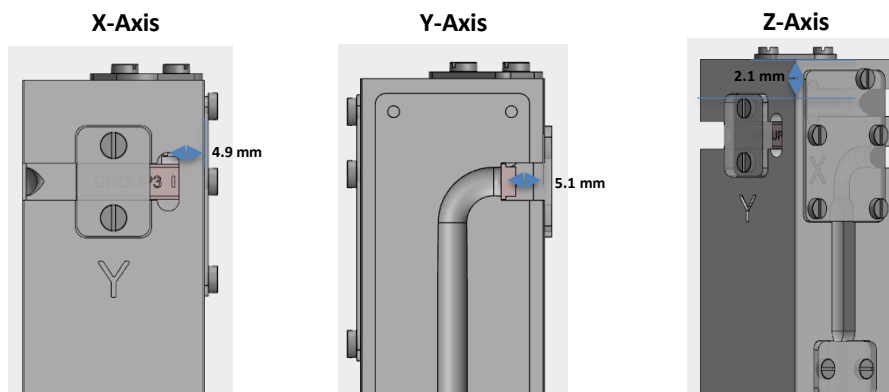
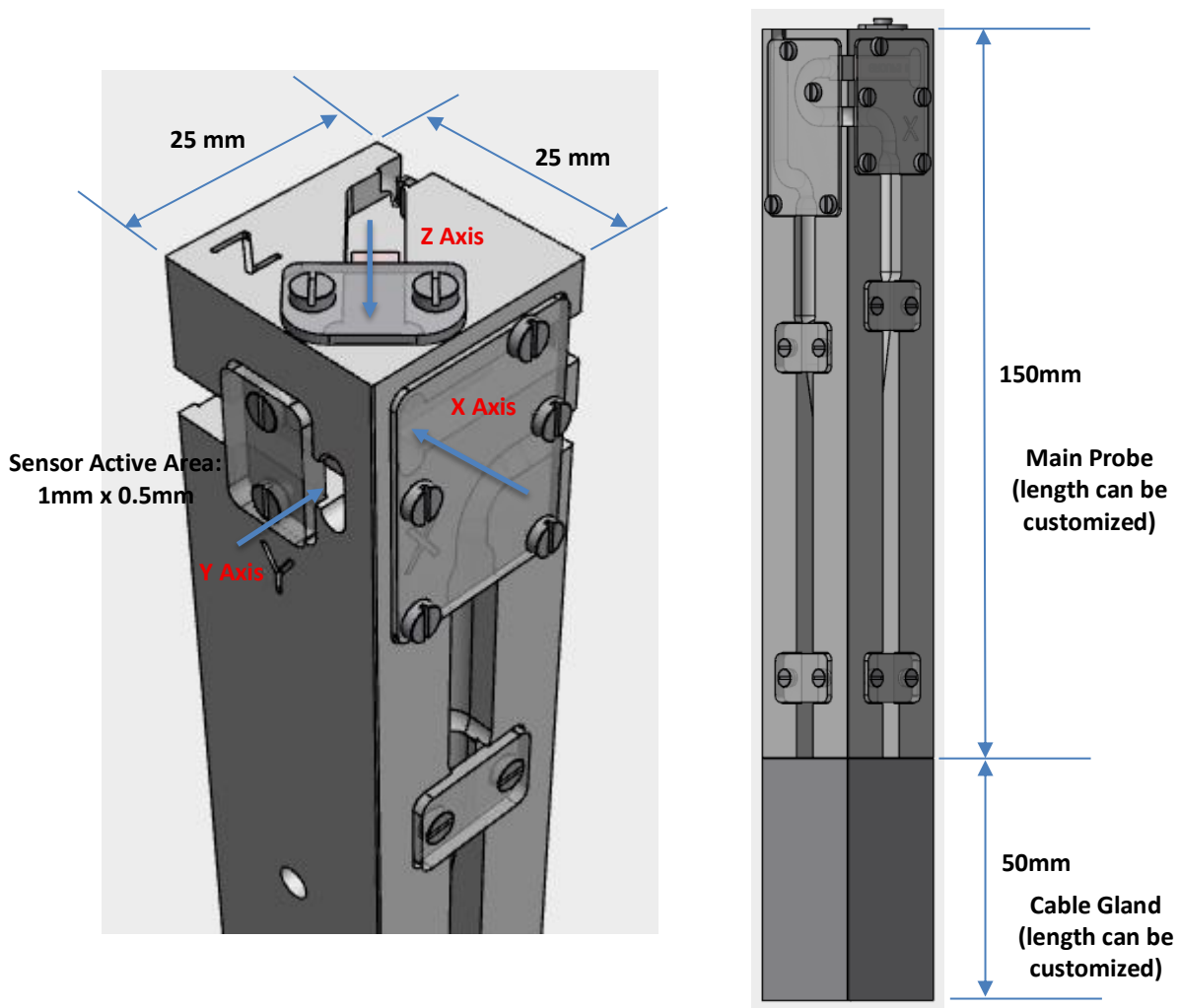
TABLE 1 -DC Mode with Digital Filtering ON
1 in 600,000 of bipolar scan in front of panel display

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

TABLE 2 - 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	0.001	0.0000001
0.06	0.01	0.000001	0.01	0.000001
0.12	0.02	0.000002	0.01	0.000001
0.3	0.05	0.000005	0.01	0.000001

Probe Standard Dimensions:



- Distance from center of active region of sensor to edge of probe holder with positive (+) field vector entering the top surface of epoxy. Additional distance contributed by cover and screw to be factored by user.
- Probes can be maintained, repaired or calibrated individually.
- For more information, please email sales@group3technology.com.