

3DT-141

3-Axis Hall Effect Probe

Standard Sensitivity with temperature compensation
(Max. calibrated field is 2.2T or 22000 Gauss)

High Accuracy: $\pm 0.01\%$ max. error at 25°C^*

Low thermal drift at $\pm 5\text{ppm}/^{\circ}\text{C}$ 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-141 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 2.2 Tesla, bipolar. Transverse orientation reads positive (+) when field vector enters the top epoxy surface.

Accuracy at 25°C :

$\pm 0.01\%$ of reading + 0.006% of full scale with DTM-351 Digital Teslameter

Operating Range:

4- Range Operation.

0.3, 0.6, 1.2, 3.0 Tesla Full Scale

3, 6, 12, 30 Kilo Gauss Full Scale

Temperature Stability:

Calibration: $\pm 10\text{ppm}$ 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.

ORDER CODE:

3DT-141-5S 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.

See below dimensions for details.

Available for High Field Applications from 4T to 13T

Resolution using DTM-351 Digital Teslameter:

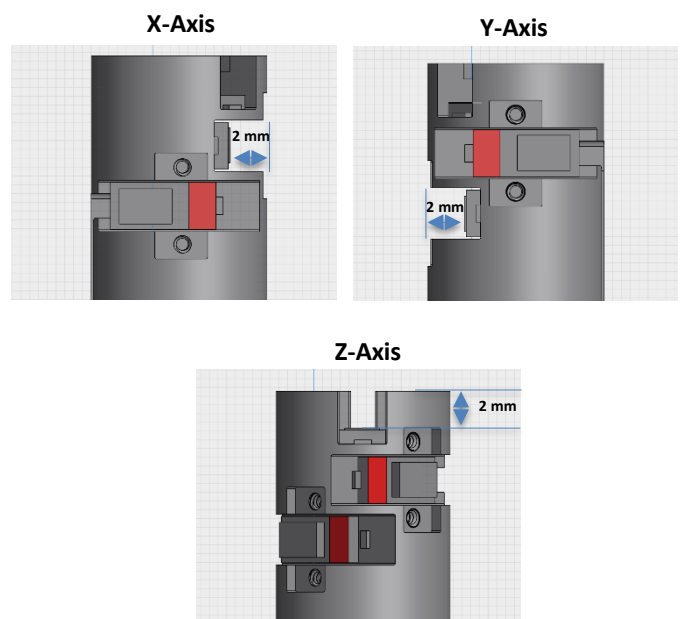
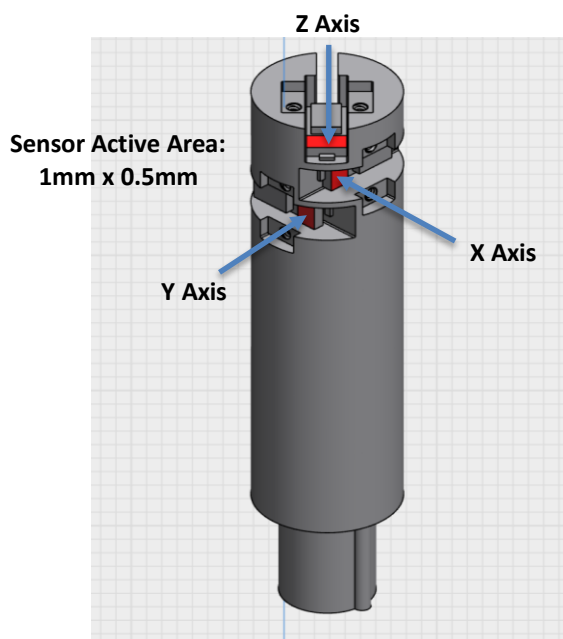
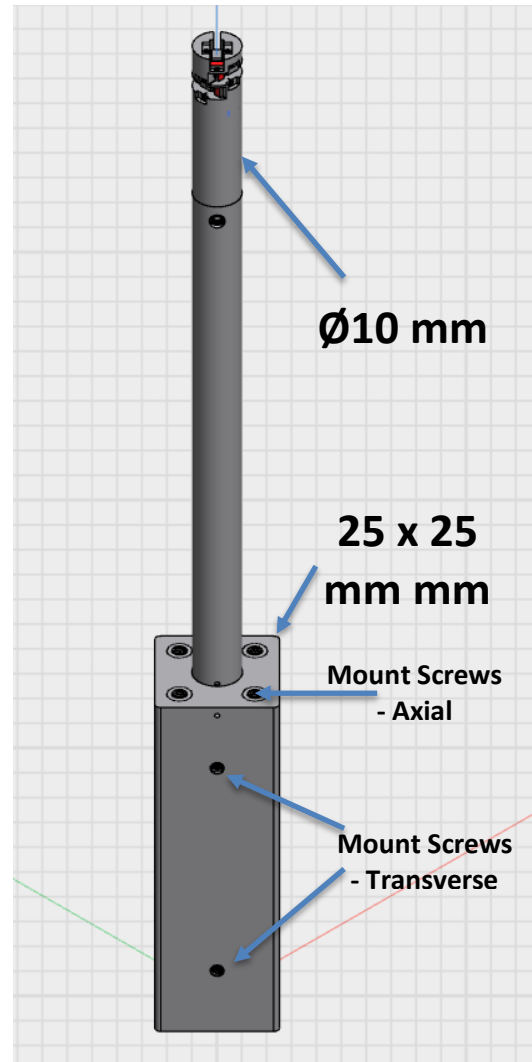
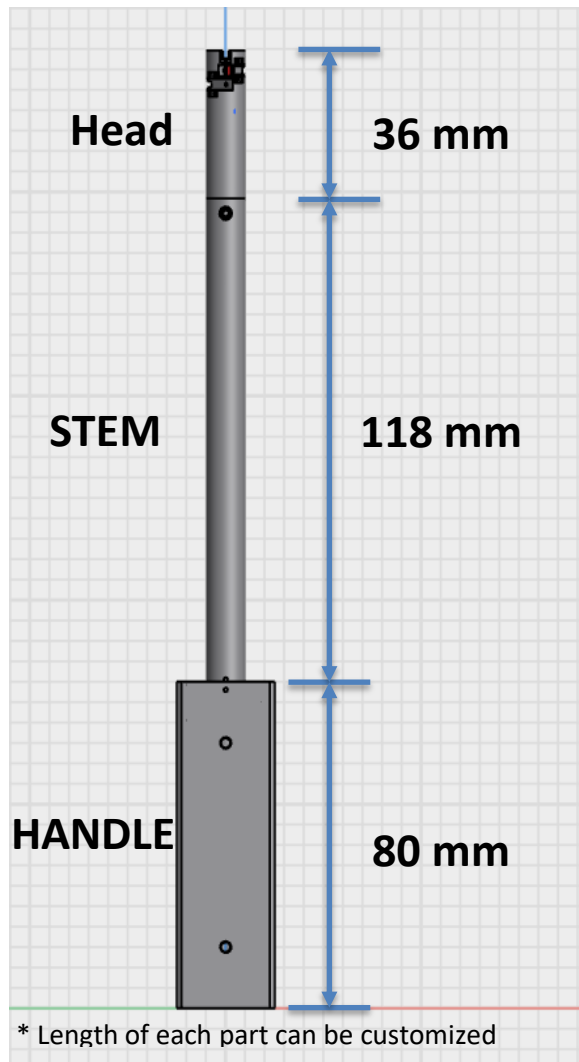
TABLE 1 -DC Mode with Digital Filtering ON
1 in 600,000 of bipolar scan in front of panel display

Range	Display resolution		Serial / GPIB Output Resolution	
	Gauss	Tesla	Gauss	Tesla
0.3	0.01	0.000001	0.001	0.0000001
0.6	0.02	0.000002	0.01	0.000001
1.2	0.04	0.000004	0.01	0.000001
3.0	0.1	0.00001	0.01	0.000001

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
0.3	0.05	0.000005	0.001	0.0000001
0.6	0.1	0.00001	0.01	0.000001
1.2	0.2	0.00002	0.01	0.000001
3.0	0.5	0.00005	0.01	0.000001

Dimensions:



Probes can be maintained, repaired or calibrated individually.