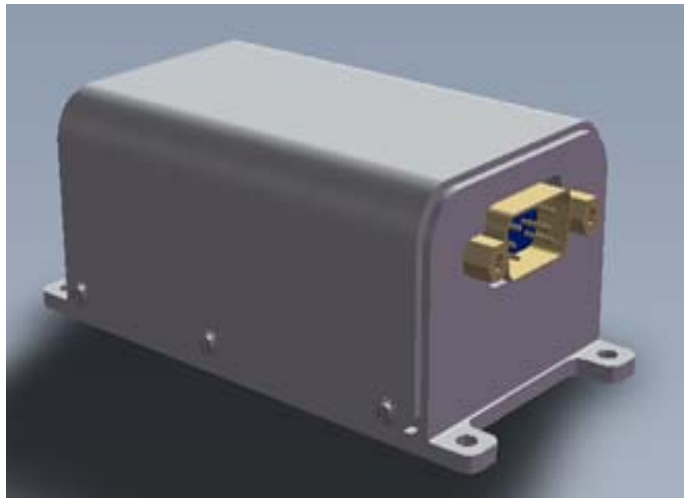


Magnetometer

Applications

- Attitude Determination Systems
- Safe-mode Systems
- LEO Missions
- Earth Observation Missions
- Space Science Missions



Features

- 3-Axis Fluxgate Magnetometer
- Reliable Attitude Sensing
- Low Mass and Power
- Temperature Sensor
- 7 year Design Life

Interfaces

- Analogue Inputs/Outputs
- D-Type DC Connector

Heritage

- 70 Magnetometers Flown on over 30 Missions

Options

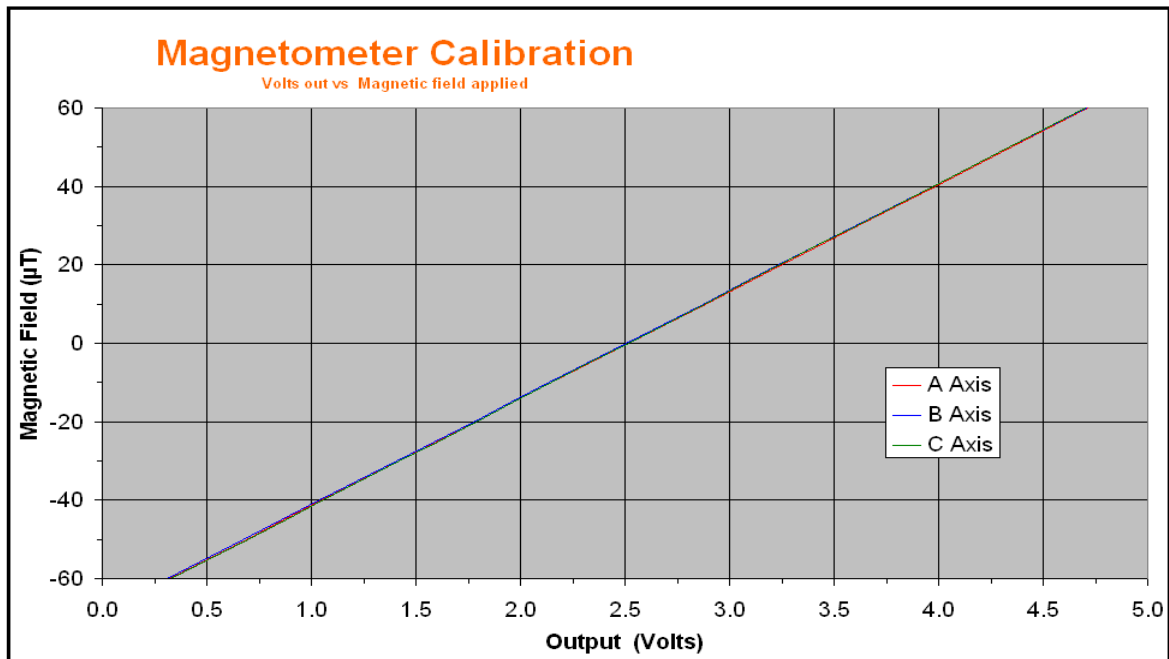
- Various Surface Finishes Available
- Custom Design Available
- Digital Interface Unit

Other SSTL AOCs Subsystems

- Reaction Wheels
- Star Trackers
- Sun Sensors
- Magnetometer MTR-30 (dual Coil)
- Magnetorquer MTR-30s (single coil)
- Magnetorquer MTR-5

Sensitivity	± 10 nT
Range	± 60 µT
Bandwidth	10 Hz
Temperature Channel	1x 0-5V Analogue
Field Measurement	3x 0-5V Analogue
Mass	140 g
Dimensions	99 x 35 x 51.72 mm
Power Supply	Supply ± 12 V Consumption <300mW
Temperature	-20 to +50°C operating -40 to +80°C non-operating
Random Vibration	15Grms in all axis
Radiation Tolerance	10kRad (Si)

Magnetometer



The magnetometer is suitable for use as part of a coarse attitude determination system on LEO missions. The 3-axis fluxgate magnetometer measures the magnetic field and provides readings from 3 sensors arranged in orthogonal axes. It can be used in combination with a satellite position fix and International Geomagnetic Reference Field (IGRF) model to determine satellite attitude. In addition, an analogue temperature sensor provides case-temperature telemetry.

SSTL is ISO9001:2008 certified

Subsystems are manufactured to:

- ECSS Q-ST-70-08C
- ECSS Q-ST-70-38C
- All work overseen by ESA - trained assembly staff

Standard Delivery Service Includes:

- compliance testing
- vibration test
- thermal cycling
- user manual
- test results
- export license and shipping
- thermal vacuum testing available
- unit can be supplied prior to environmental testing

Surrey Satellite Technology Limited

SSTL has launched over 34 satellites gaining almost 200 years in-orbit experience. SSTL draws on its world-class expertise in both small satellite platform technology and high and medium resolution optical instruments. SSTL provides complete turn-key system solutions; spacecraft, ground station, launch, operations and image processing.

SSTL is unique in the space industry; able to design, manufacture and integrate multiple satellites in-house.

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