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## ITER Outer Vessel Steady-State magnetic sensor calibration

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The ITER outer vessel steady-state magnetic field sensors (OVSS) have been calibrated at Argonne National Laboratory's 4 Tesla Magnet Facility, using a fixture and process developed by Fermilab. The OVSS consists of two bismuth Hall probe sensing layers and onboard thermocouple, designed to operate with a measurement error of 4 mT for the magnetic field up to 2.5 T at the OVSS location. To achieve this accuracy, the calibration requires metrology accuracy to 0.5 mrad, temperature measurement accuracy of 6 mK at controlled heating setpoints up to 104 degrees Celsius, and a calibrated magnetic field up to 3 T with a maximum error of 0.02 %. We will present how these requirements were achieved and the fixturing devised to allow the calibration process.

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