

# **North America Radiation Hardened Feedback Sensors Market Forecast to 2031 - Regional Analysis - by Sensor (Resolver, Encoder, Hall Effect Sensor, Potentiometer, and Others) and Application (Space, Aerospace and Defense, Nuclear Power Plant, and Others)**

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## **Abstracts**

The North America radiation hardened feedback sensors market was valued at US\$ 43.76 million in 2023 and is anticipated to reach US\$ 59.60 million by 2031; it is estimated to register a CAGR of 3.9% from 2023 to 2031.

### **Miniaturization of Radiation Hardened Feedback Sensors Fuels North America Radiation Hardened Feedback Sensors Market**

Miniaturized devices play a crucial role in providing precise measurements under harsh radiation environments. These sensors offer significant benefits such as improved radiation resistance, space-saving, and extended operational lifespan in a wide range of applications—aerospace & defense, space, and nuclear power plants. The primary advantage of miniaturized radiation hardened feedback sensors is their improved efficiency. The reduced size of radiation hardened feedback sensors allows manufacturers to optimize their operational performance, enable faster response times, and provide more accurate readings. This enhanced efficiency of miniaturized radiation hardened feedback sensors is highly beneficial in applications where real-time data acquisition and analysis are critical, such as in particle accelerators and nuclear reactors.

Miniaturization of sensors opens up possibilities to integrate radiation hardened

feedback sensors into a wide range of electronic devices such as satellites, nuclear reactors, microcontrollers, radiation therapy or imaging devices, and particle accelerators. The integration of such sensors ensures accurate and reliable measurements in the presence of ionizing radiation. The key players operating in the market are taking several strategic steps, such as partnerships, collaborations, and new product launches. Thus, the rising demand for miniaturized radiation hardened feedback sensors drives the market.

## North America Radiation Hardened Feedback Sensors Market Overview

The expanding space industry is boosting the radiation hardened feedback sensors market in North America. The US has been at the forefront of spaceflight for more than 60 years. It has the world's largest government space program. The US-registered satellites accounted for more than half of all operational satellites in 2022. The US is currently the only country with a thematic account for space activities. It allows it to track the space economy in robust and comparative ways with other parts of the US economy, using the statistical framework of national accounts. According to the US Bureau of Economic Analysis, the US space economy employed 360,000 workers and generated US\$ 211.6 billion in gross output in 2021, including government activities. The US space industry, which covers all segments from R&D to satellite data/signals exploitation and analysis, caters both to a strong domestic government demand (including defense) and international markets. By the end of 2022, seven out of the ten biggest commercial space operators worldwide, in terms of number of satellites, were headquartered in the US.

## North America Radiation Hardened Feedback Sensors Market Revenue and Forecast to 2031 (US\$ Million)

### North America Radiation Hardened Feedback Sensors Market Segmentation

The North America radiation hardened feedback sensors market is categorized into sensor, application, and country.

Based on sensor, the North America radiation hardened feedback sensors market is segmented into resolver, encoder, hall effect sensor, potentiometer, and others. The resolver segment held the largest market share in 2023.

By application, the North America radiation hardened feedback sensors market is segmented into space, aerospace and defense, nuclear power plant, and others. The

space segment held the largest market share in 2023.

By country, the North America radiation hardened feedback sensors market is segmented into the US, Canada, and Mexico. The US dominated the North America radiation hardened feedback sensors market share in 2023.

Power Device Corporation; NewTek Sensor Solutions; Honeywell International Inc; Dynapar Corporation; EMPIRE MAGNETICS, INC; Magics Technologies NV; Netzer Precision Position Sensors A.C.S. Ltd.; and Computer Conversions Corporation are some of the leading companies operating in the North America radiation hardened feedback sensors market.

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