

Press Release

RAFI SMART ENCODER:

Adaptive encoder with programmable haptic feedback

With the Smart Encoder, RAFI is expanding its portfolio to include a software-controlled, haptic rotary encoder that enables a completely new user experience. The encoder redefines the function of traditional rotary encoders by offering customizable, realistic haptic feedback for a wide variety of applications.

At the heart of the system is fully programmable haptics: click behavior, torque, end stops, and return to a center position can all be flexibly configured via software. This allows the tactile behavior to be precisely tailored to the specific function or user requirement.

Among other features, the Smart Encoder enables a variable number and intensity of detents, dynamic and context-dependent end stops, and active return to the center position, which creates a spring-like operating feel. In addition, dynamic torque control allows for real-time adjustment of resistance, ensuring particularly intuitive and precise user feedback.

Thanks to this flexibility, the Smart Encoder functions as an intelligent haptic interface that actively interacts with the user. The result is intuitive operation, greater operational safety, and a significant reduction in operating errors.

As a standardized platform solution, the Smart Encoder can be used in a wide range of applications, from industry and mechanical engineering to medical technology and agricultural and construction machinery. Developers and manufacturers benefit from a uniform, flexibly adaptable solution for a wide variety of application scenarios.



Caption 1: The flexibly programmable SMART ENCODER from RAFI can be optimally adapted to specific application requirements in terms of detent behavior, torque, and angle.

Image source: RAFI



Caption 2: The SMART ENCODER from RAFI offers individually customizable, realistic haptic feedback for a wide variety of applications.

Image source: RAFI

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About the RAFI Group

Founded in 1900, RAFI today develops and produces electromechanical components and systems for human-machine interaction. The range of products includes key switches, switches, touchscreens, control systems, and electronic assemblies. RAFI products are employed in many industries including automation, medical technology, machine and plant engineering, road and railway vehicles, household appliances, and telecommunication. The RAFI Group operates internationally with more than 2,000 employees at sites in Germany, Europe, China, and the USA. Its headquarters are in Berg, Germany.

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