

**NexSafe rail brakes with functional safety certification
for linear motion systems**

Wemmel, Belgium, November 2021. Nexen Group, Inc. presents NexSafe rail brakes for linear and profile rails and guides. NexSafe rail brakes are functional safety certified to comply with international safety standard ISO 13849-1. They are ideal for linear motion applications where safety is a priority. The spring engaged, air released rail brakes are compact and powerful, and can be used with most profile guide rails. They can be equipped with sensors to detect engagement and disengagement, making them Industry 4.0 compatible.

Rail brakes grip and hold profile guide rails. They play a critical role in many linear motion applications by ensuring that the guide carriage and payload do not move under load. Rail brakes are used in machinery such as packaging machines, metal-cutting machine tools, woodworking machines and medical systems. NexSafe spring engaged, air released rail brakes are designed to hold in a safe position by default. They use spring force to secure the load in holding applications. Having superior response time and high force for stopping and holding, the brakes are ideal in e-stop and power-off situations. They have low backlash for accurate position holding. Each brake clamps directly onto the guide rail to provide positive braking and holding in all axes, with no effect on bearing surfaces. For easy installation, the brake geometry is similar to linear bearing cassettes. No lubrication or periodic maintenance is required. Nexen offers many models to fit most common profile guide rails and carriages.

NexSafe rail brakes are available with operating mode sensors for either engagement and disengagement. By providing information to maximize machine efficiency, the sensor-equipped brakes allow system manufacturers to gain higher safety category ratings. Guide rail brakes with mounted sensors are ideal for e-stop and redundant safety braking applications such as gantry axis braking, industrial door open/close locking, medical equipment and hospital beds, primary and secondary packaging, and window and door manufacturing. NexSafe rail brakes with sensors are Industry 4.0 compatible. The information provided by the sensors aids with accurate linear positioning, predictive maintenance and operational feedback.

Functional safety certified brakes reduce the risk of injury in the face of operator error or mechanical failure, and provide a verified, reliable solution that machine builders can depend on. With ISO 13849-1 functional safety certification, NexSafe brakes are ideal for applications where safety is a priority. The optional operating mode sensors further ensure NexSafe products are a fit for safety channels designed for ISO 13849-1 categories B through 4 and performance levels PLa through PLe. In addition, NexSafe brakes are certified to meet IEC 61508, ISO 12100, ISO 13850, and ISO 4414 standards.

Images:

NexSafe functional safety certified rail brakes from Nexen with sensor (left) and without sensor (right)



Link to product page:

<https://www.nexengroup.com/nxn/products/prod-nav/lp/Rail+Brakes>

Link to product brochure:

<https://www.nexengroup.com/nxn/files/literatures/21327.pdf>

About Nexen Group, Inc.:

Nexen Group, Inc. is a worldwide leader in power transmission, linear and rotary motion, and tension control components. Nexen holds 120 US and international patents. A privately held company, Nexen traces its origins back to 1902. For more than 50 years, Nexen has been producing industrial brakes, clutches, torque limiters, overload protection devices and control systems for a variety of industrial applications ranging from packing equipment to sawmills and automobile conveyor systems. Nexen's customers span every industry – from multi-national corporations to small businesses – and range from design engineers to plant maintenance. Headquartered in the USA and with its European office based in Wemmel,

Belgium, Nexen has more 40 sales offices and more than 1,500 distributor outlets worldwide.

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