

Application Note

Compact Limit Switches for Industrial and Transportation Applications

Description

Honeywell's MICRO SWITCH™ Compact Limit Switches, NGC Series, are a configurable platform of medium-duty switches that allow the customer to choose SPDT (single pole, double throw) or DPDT (double pole, double throw) circuitry while maintaining the same housing and mounting footprint throughout the NGC Series. MICRO SWITCH™ NGC Series can be configured more than 380,000 ways, carries global approvals, and are sealed to IP67 for potential use in indoor and outdoor applications.

Solutions

Industrial Applications

Elevators & escalators

Detects position of the moving equipment. The NGC Series Compact Limit Switch may be used to monitor moving components to ensure that they remain in their designed envelope of movement. If the limit switch monitoring the movement detects the machinery, it can be used to shut the machine down.

As a control mechanism, the NGC Series Compact Limit Switch may be used to indicate end of travel or other movement profile conditions (e.g., the elevator is moving from floor one to floor two). As the elevator passes the limit switch, the elevator engages the limit switch. The moving equipment then sends a signal to the system controller informing it that the elevator is moving. This signal can be used to further control other operations, or simply provide an indication that the elevator is working as intended.

Machine tools and Packaging Equipment

May be used for position detection. The NGC Series Compact Limit Switch may be integrated where other sealed limit switches typically cannot. The environment in which machine tools and packaging equipment operate is often dirty and extreme. Components used in machine tools typically must contend with cutting oils, fluids and metal debris. Components used around packaging equipment must typically contend with debris and dust from cardboard cutting operations in which switches must operate. The NGC Series provide a sealed switching package with single pole and double throw contact options.

Transportation Applications

Scissor lifts and mobile light towers

May be used for position detection. The NGC Series Compact Limit Switch's small size allows it to be integrated where other sealed limit switches cannot. By design, scissor lifts and mobile light towers lift or extend arms and platforms to positions high into the air. Scissor lifts are complex mechanisms which require significant control to function properly. Limit switches like the NGC Series Compact Limit Switch may be used at multiple points on scissor lifts without consuming critical space that is required for the mechanism to function properly. Mobile light towers function similarly; however, they are often used in harsh environments such as in cold temperatures and in rain and storms. The NGC Series Compact Limit Switch is designed for use in these demanding types of applications because it is sealed to the environment.

Rail doors

May be used for position detection. The NGC Series Compact Limit Switch's small size allows it to be integrated where other sealed limit switches cannot. Rail doors often function as a pocket-type door and perform a sliding motion when opening and closing. They are designed this way to maximize the space used by the rail cars. Therefore, products that are used to control the doors must be compact and efficient. The NGC Series Compact Limit Switch is small enough to fit in tight spaces, yet is built to withstand the harsh environments that rail applications typically present.

Application Note

Compact Limit Switch, NGC Series



MICRO SWITCH™
Compact Limit
Switch, NGC Series

Benefits to the Customer

- The NGC Series Compact Limit Switch's compact size allows it to be positioned in areas where space is at a premium.
- The internal workings of the NGC Series Compact Limit Switch are sealed from the environment, allowing for potential use in many types of environments.
- The NGC Series' configurable options allow a common switch body and interface for a variety of sensing requirements:
 - Choice of connector or cable options
 - Compact option for double pole double throw switching needs
 - Optional cable lengths and switch body exit configurations

Find Out More

To learn more about Honeywell sensors and switches, contact a Honeywell representative today at **1-800-537-6945**, e-mail info.sc@honeywell.com, or visit sensing.honeywell.com

Sensing and Productivity Solutions

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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

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