

Application Note

MICRO SWITCH™ GSS Hinge Mount Safety Switches

APPLICATION DESCRIPTION

In the applications shown in Figure 1, a MICRO SWITCH™ GSS Hinge Mount Safety Limit Switch (SIL 3 capable) provides positive opening of either 2NC (Normally Closed) or 1NC/1NO (Normally Open) contacts upon the opening of a protective guard or access door on which the switch is mounted.

The GSS Series Hinge Mount Safety Limit Switch is particularly suited to hinged doors that require an alternative interlock solution other than a key operated safety limit switch when:

- The space for mounting the key operated limit switch is limited.
- The protective guard may need to swing in toward the machine or robotic cell, or may need to swing in both directions.
- The actuator is difficult to align or engagement is sporadic.
- Tampering is a concern and internal mounting is desired.

OPERATION IN POSITIVE MODE

The MICRO SWITCH™ GSS Hinge Mount Safety Limit Switch is SIL 3 capable and available in the following three configurations as shown in Figure 2. The correct configuration for the application must be chosen in order to achieve positive mode operation.

- Left from center (A)
- 90° either direction from center (B)
- Right from center (C)

Refer to PK 80138 (GSS Series Hinge Mount Safety Limit Switch) for operating travel bar charts for each configuration. The actuator lever position shown for each model (270°, 360°, or 90° with respect to the 0° home position) is the actuator lever position in which the cam allows the switch's plunger to release, closing the positive opening NC contacts. This is the only permissible "run" position.

Only the NC contacts may be used for the safety control circuit (terminals 11 and 12, and terminals 21 and 22). If a NO contact is ordered (terminals 13 and 14), it must be used for monitoring only, not as a safety circuit. MICRO SWITCH™ GSS Hinge Mount Safety Limit Switches must be installed and wired according to these guidelines in order to meet the positive mode operation requirements as specified in the Machinery Directive and IEC 60947-5-5.

FIGURE 1: APPLICATION SUGGESTIONS

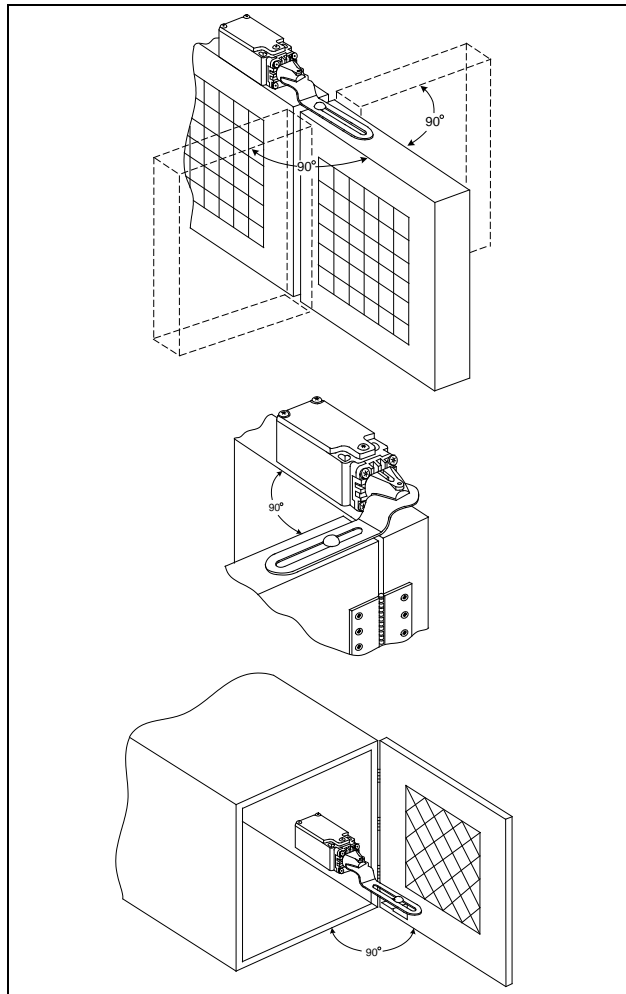
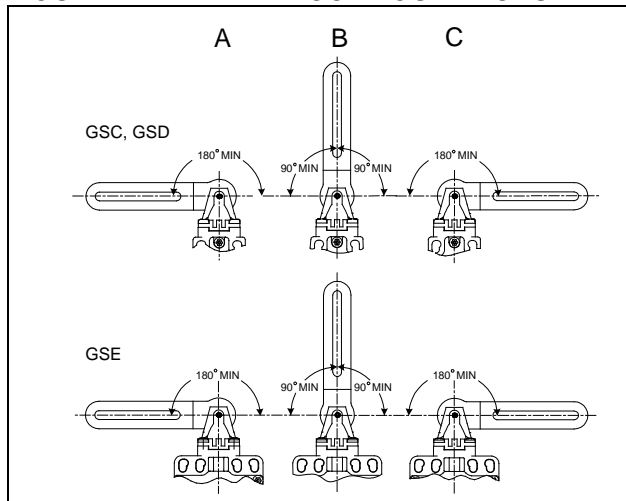


FIGURE 2: AVAILABLE CONFIGURATIONS



MICRO SWITCH™ GSS Hinge Mount Safety Switches

WARNING

RISK TO LIFE OR PROPERTY

Never use this product for an application involving serious risk to life or property without ensuring that the system as a whole has been designed to address the risks, and that this product is properly rated and installed for the intended use within the overall system.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this application note is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

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.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

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Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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