

Hinge Wing Safety Interlock Switches

SI-HG63 Series Safety Interlock Switches Attached to a Load-Bearing Hinge



Model SI-HG63FQDR shown



Features

- Safety switch is integrated into a highly robust PBT housing and screwed onto the fine-cast stainless steel hinge.
- Safety switching point is repositionable.
- Right-hinge, left-hinge, and right-angle hinge models available; switches can also be converted to operate from the opposite side.
- A non-switching blank hinge is also available (see page 7).
- Switch components are protected from mechanical impact, for superior performance to actuator-activated safety switches; rated IEC IP67.
- Hinge operates to a full 270° range of motion; safety switching point (guard-closed position) is adjustable over the full 0–270° operating range.
- Hinge can support an axial and radial load of 1200 N (120 Kg).
- When properly interfaced or used with an appropriate controller, two **SI-HG63** switches on an individual gate or guard can achieve safety category 4, per ISO 13849-1 (EN 954-1).
- Typical applications include:
 - Hinged covers and guards to machines
 - Hinged doors and gates in safety fencing systems
 - Modular aluminum framing

Models


| Model | Housing Style/ QD Connection | Contact Configuration* (Gate Closed State) | Contact Configuration* (Gate Open State) | Switching Diagram |
|--------------|--|---|---|---|
| SI-HG63FQDR | Inline QD With QD facing down, switch is mounted on right side of hinge | | | <p>Contacts: □ Open ■ Closed ▒ Transition</p> |
| SI-HG63FQDL | Inline QD With QD facing down, switch is mounted on left side of hinge | | | |
| SI-HG63FQDRR | Right-Angle QD With switch body down, switch is mounted on right side of hinge | | | |

*NOTE: Terminals 33 and 34 are non-safety.



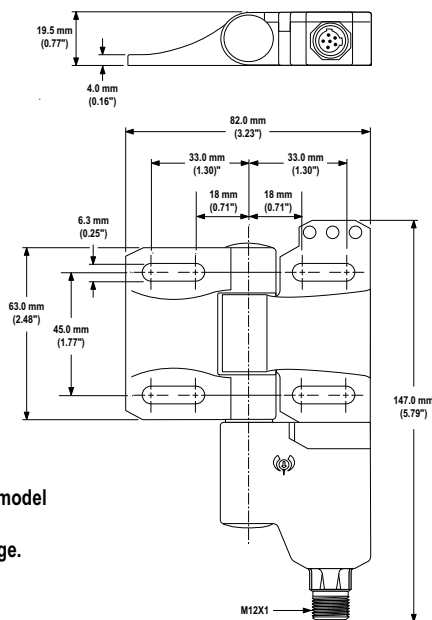
Hinge Switches – SI-HG63 Series

Specifications

| | |
|--|--|
| Contact Rating | 3A @ 230V ac max., 1.0 A @ 24V dc max. 2.5 kV max. transient tolerance NEMA A300 P300 |
| European Rating | Utilization categories: AC15 and DC13 (IEC 90497-5-1) $U_i = 250V$ ac $I_{th} = 5A$ |
| Minimum Switching Speed | 5 operations per minute |
| Switching Angle | N.C. Contact: $\pm 3^\circ$ N.O. Contact: $\pm 9^\circ$ Tolerance for all angles: 1.5° |
| Mechanical Life | 1 million operations |
| Short Circuit Protection | 4 amp Slow Blow, 8 amp Fast Blow. Recommended external fusing or overload protection. |
| Force Exerted by Guard per Switch | Axial and Radial: 1200 N (264 lbf) max. |
| Operating Range | 0° to 270° |
| Wire Connections | 6-pin Micro-style quick-disconnect (QD) fitting. Cordsets are ordered separately; see page 8. |
| Construction | Hinge: X22CrNi 17 Switch: PBT |
| Environmental Rating | NEMA 4, IEC IP67 acc. IEC/EN60529 |
| Operating Conditions | Temperature: -25° to $+70^\circ$ C (-13° to $+158^\circ$ F) |
| Weight | 0.65 kg (1.43 lb) |
| Application Notes | To avoid excessive radial stress in applications containing large doors, the hinge switch should be mounted either in pairs of two, or in conjunction with a blank hinge (see page 8). |
| Certifications |  |

Dimensions

Model SI-HG63FQDR



Dimensions for model SI-HG63FQDL are a mirror image.

Model SI-HG63FQDRR

