

# 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	<b>Inline QD</b> With QD facing down, switch is mounted on right side of hinge			<p>Contacts: □ Open ■ Closed ▒ Transition</p>
SI-HG63FQDL	<b>Inline QD</b> With QD facing down, switch is mounted on left side of hinge			
SI-HG63FQDRR	<b>Right-Angle QD</b> With switch body down, switch is mounted on right side of hinge			

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



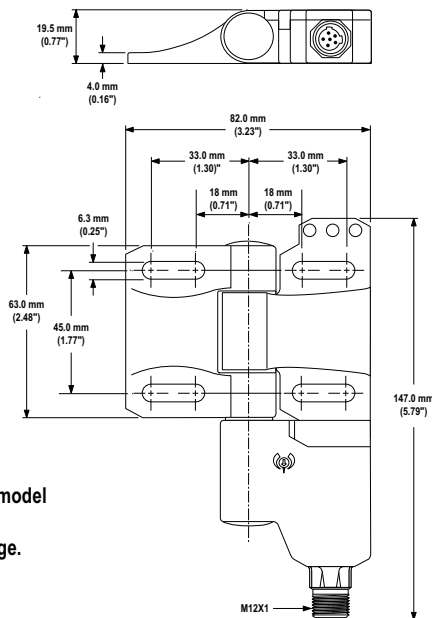
# Hinge Switches – SI-HG63 Series

## Specifications

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

## Dimensions

Model SI-HG63FQDR



Dimensions for model SI-HG63FQDL are a mirror image.

Model SI-HG63FQDRR

