

HS5B Series Miniature Interlock Switch

HS5B

Key features include:

- 30mm x 30mm x 91mm Compact Housing
- Available with 2 Contact Configurations (1NO + 1NC or 2NC)
- Flexible Installation: By turning the head of the switch to the desired angle, the actuator can be accessed from 5 directions.
- Plastic Housing: Light weight
- Direct Opening Action: Opening the door forces the contacts to disconnect even if the contacts are welded. (IEC60947-5-1)
- Degree of Protection: IP67 (IEC60529)



Safety Products

B1



EN1088
EN60947-5-1
IEC60947-5-1



GS-ET-15
BG standard in Germany

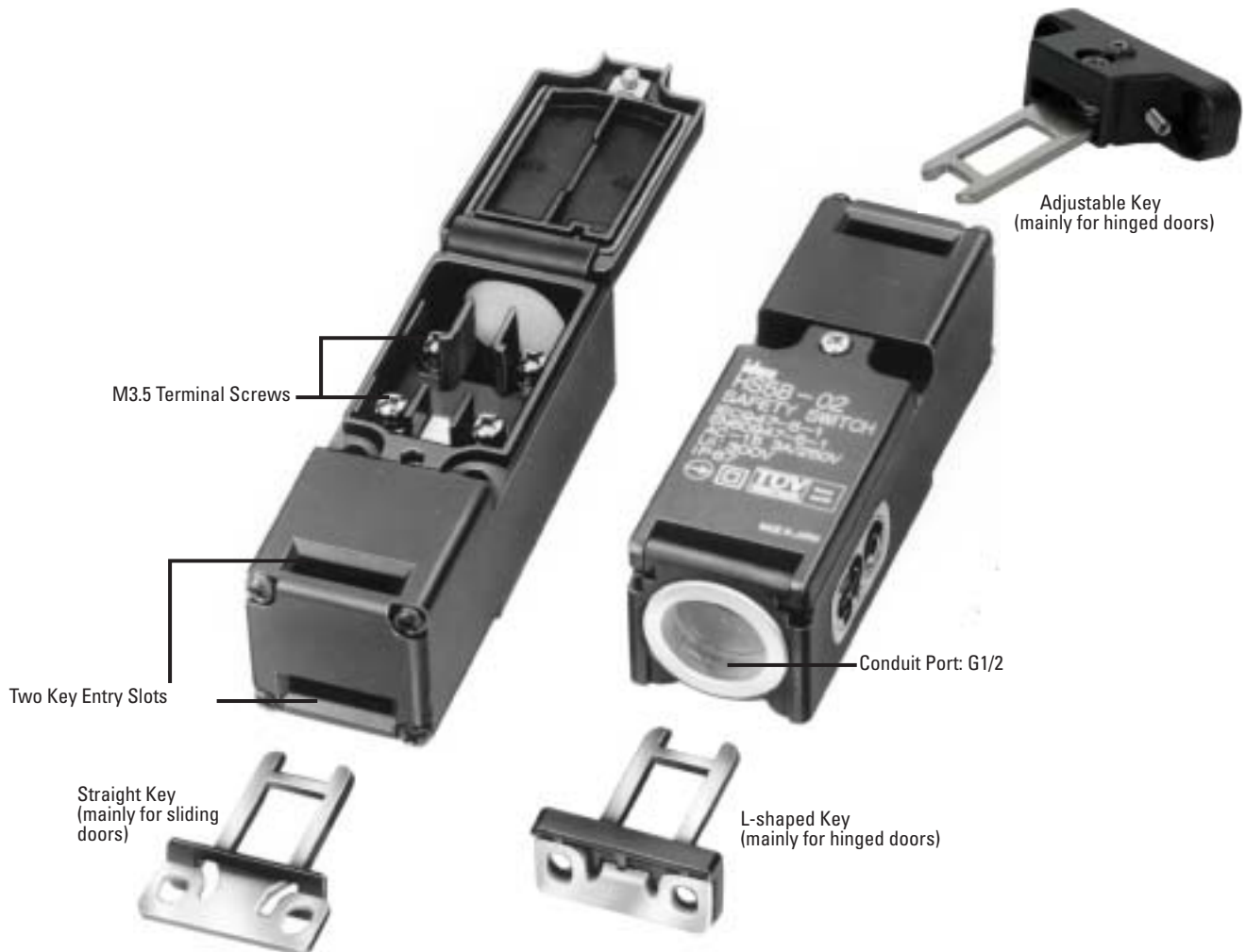


Direct Opening



Double Insulation

HS5B Series Functionality



Specifications

Specifications	Conforming to Standards		EN1088, IEC60947-5-1, EN60947-5-1, GS-ET-15				
	Operating Temperature		-20 to +70°C (no freezing)				
	Storage Temperature		-40 to +80°C				
	Operating Humidity		85% RH maximum (no condensation)				
	Altitude		2,000m maximum				
	Rated Insulation Voltage (Ui)		300V				
	Impulse Withstand Voltage (Uimp)		4 kV				
	Insulation Resistance		100 MΩ minimum (500V DC megger)				
	Electric Shock Protection Class		Class II (IEC61140)				
	Pollution Degree		3 (IEC60664-1)				
	Degree of Protection		IP67 (IEC60529)				
	Vibration Resistance	Operating Extremes	10 to 55 Hz, amplitude 0.5 mm				
		Damage Limits	60 m/sec ² (approx. 6G)				
	Shock Resistance		1,000 m/sec ² (approx. 100G)				
	Actuator Operating Speed		1 m/sec maximum				
	Positive Opening Travel		8 mm minimum				
	Positive Opening Force		60N minimum				
	Thermal Current (Ith)		10A				
	Rated Operating Current (Ie)		Rated operating voltage (Ue)		30V	125V	250V
			AC	Resistive load (AC12)		10A	10A
Inductive load (AC15)				10A	5A	3A	
DC			Resistive load (DC12)		8A	2.2A	1.1A
	Inductive load (DC13)		4A	1.1A	0.6A		
Operating Frequency		900 operations/hour					
Mechanical Life		1,000,000 operations					
Electrical Life		100,000 operations (rated load)					
Conditional Short-circuit Current		100A (IEC60947-5-1)					
Recommended Short Circuit Protection		250V, 10A fuse (Type D01 based on IEC60269-1, 60269-2)					
Weight		Approx. 80g					

Ordering Information

HS5B - **11 B**

Contact Configuration
(11: 1N0-1NC, 02: 2NC)

B1

Safety Products

Part Numbers

Part Numbers: Body

Part Number	Contact Configuration	Conduit Port
HS5B-11B	1N0-1NC	G1/2
HS5B-02B	2NC	



The key is not included with the switch and must be ordered separately.

Part Numbers: Key

Part Number	Shape
HS9Z-A51	Straight (Mainly for sliding doors)
HS9Z-A52	L-shaped (Mainly for hinged doors)
HS9Z-A55	flexible adjustable key

Application Examples and Circuit Diagrams

HS5B-11B (1NO-1NC)

	Status 1	Status 2
Door/ Switch Status	<ul style="list-style-type: none"> • Door Closed • Machine ready to operate 	<ul style="list-style-type: none"> • Door opened • Machine cannot be started
Door		
Circuit Diagram		
Main Circuit	3-4: Closed	3-4: Open
Aux. Circuit	1-2: Open	1-2: Closed

HS5B-02B (2NC)

	Status 1	Status 2
Door/ Switch Status	<ul style="list-style-type: none"> • Door Closed • Machine ready to operate 	<ul style="list-style-type: none"> • Door opened • Machine cannot be started
Door		
Circuit Diagram		
Main Circuit	3-4: Closed	3-4: Open
Aux. Circuit	1-2: Closed	1-2: Open

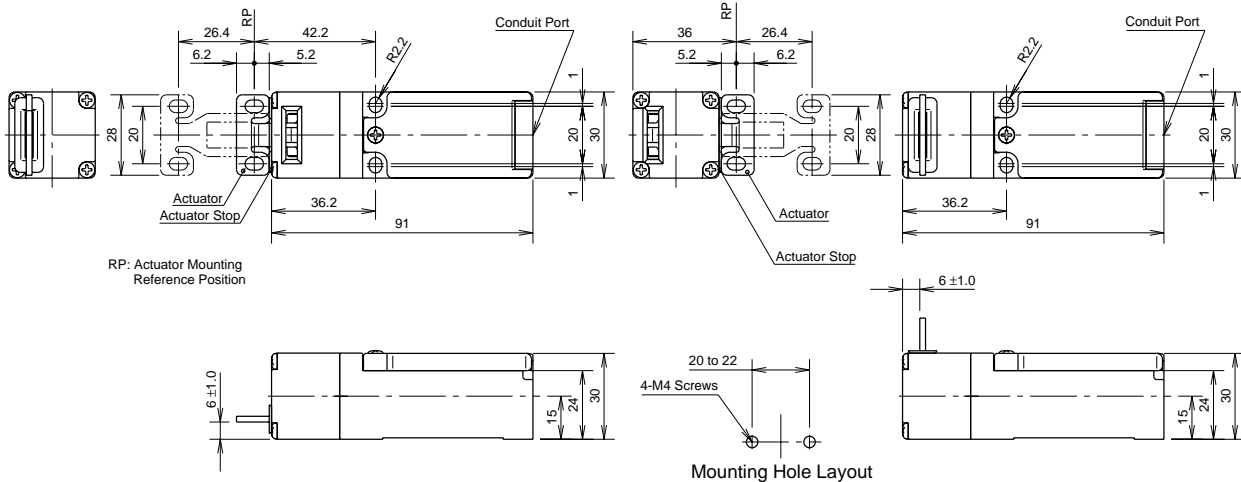
Safety Products



1. Main Circuit: used to enable the machine to start only when the main circuit is closed.
2. Auxiliary Circuit: used to indicate whether the machine circuit or door is open or closed.

Dimensions

HS5B - using the straight key (HS9Z-A51)



All dimensions in mm.