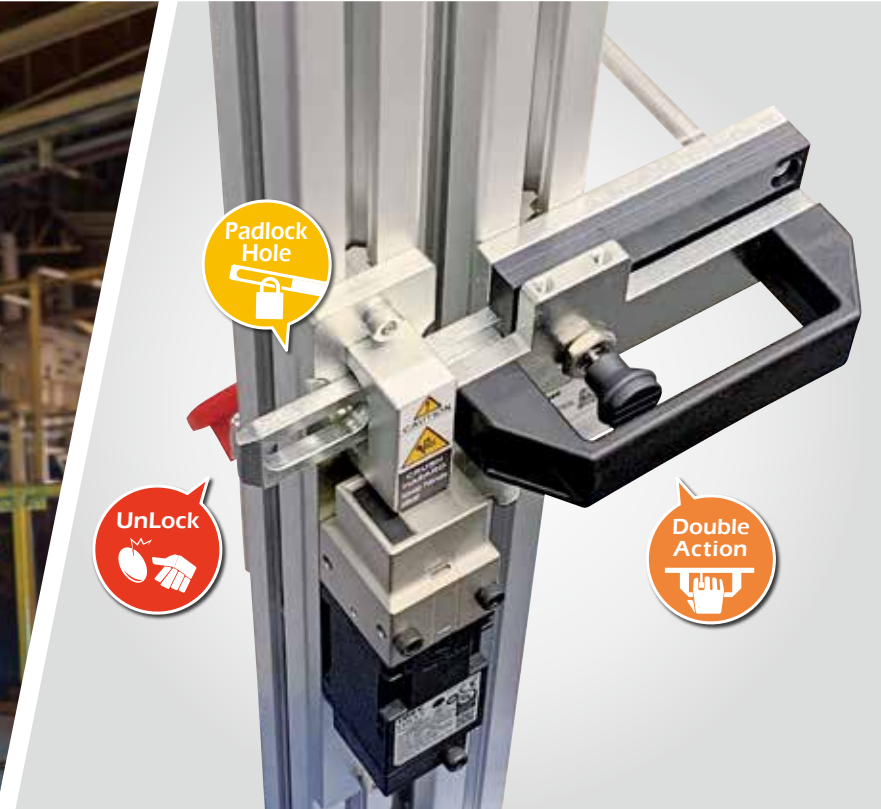




Interlock Switches with Solenoid Slide Handle Actuator for HS1T



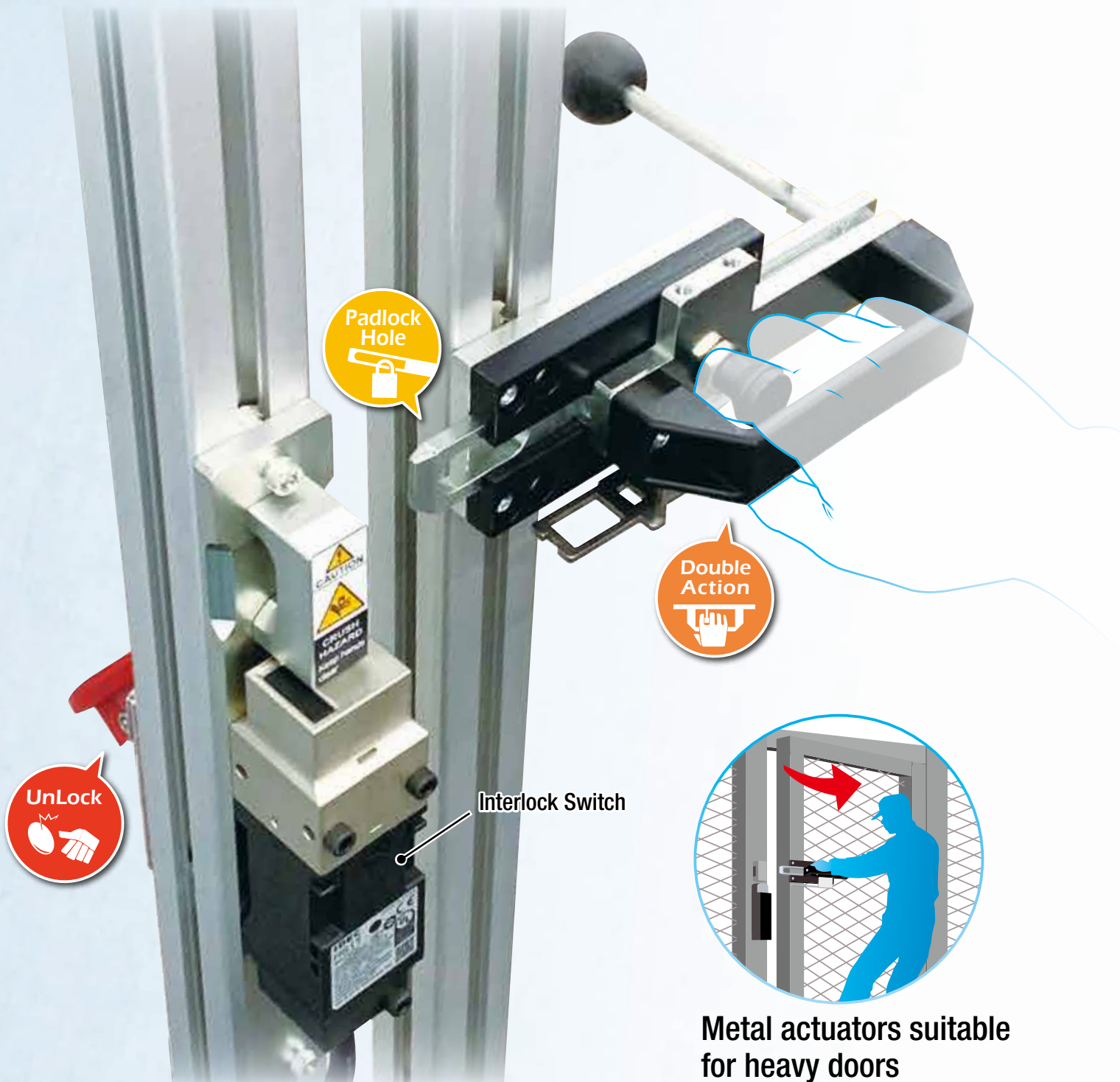
Robust & Shock Resistant

Ensures safety of workers

Shock-resistant metal slide handle actuators ensure a safe work environment

Slide handle actuators are user-friendly accessories for HS1T interlock switches.

The slide handle actuator supports 4-way operation (left/right door, sliding door/opening door) and prevents workers from being confined in hazardous areas, creating a safe work environment.



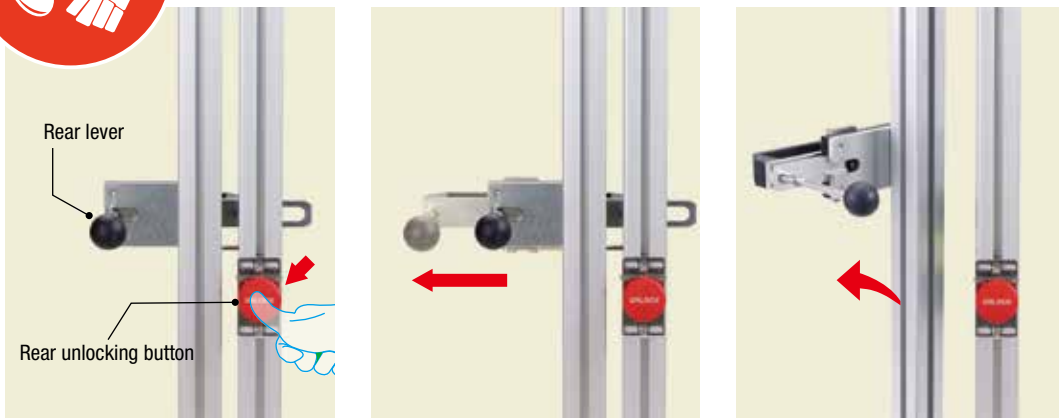
Metal actuators suitable for heavy doors

Shock-resistant and robust structure ideal for heavy doors.

Sliding features eliminate the need for angle adjustment, enabling easy installation.



Emergency escape from inside hazardous areas



Rear unlocking button kit (HS9Z-FL5□: optional)



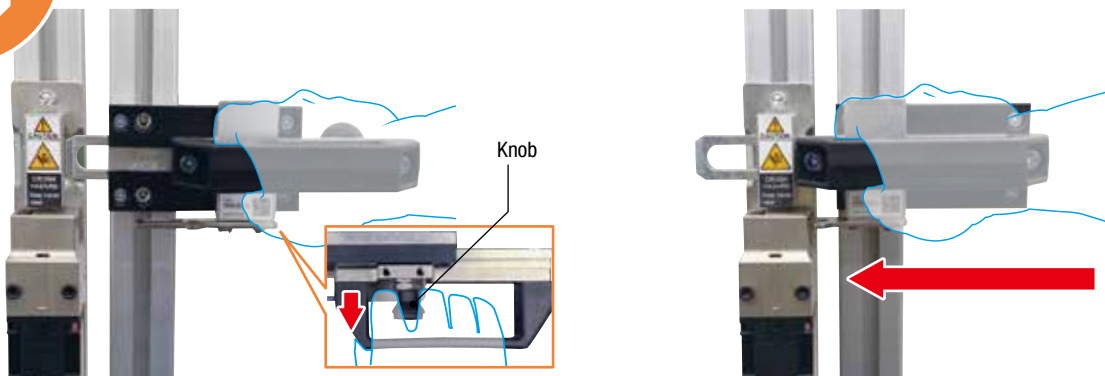
- 1** Push the rear unlocking button to release the lock and stop the hazard.
- 2** Slide the lever.
- 3** Open the door and escape.

Even if an operator is trapped inside the hazardous area, the operator can escape by unlocking the lock using the rear unlocking button and by sliding the lever to open the door. (Only when using the HS1T rear unlocking button model. Use with an optional manual rear unlocking button kit for frame).

ANSI/RIA R15.06-1999 11.2.2 Interlocking portion
 b) The interlocking portion of the interlocked barrier shall be installed, applied, and maintained so that:
 8) be capable of being easily unlocked from the inside of the safeguarded space with or without power available, when the possibility of full body access exists;



Two-step action prevents inadvertent operation



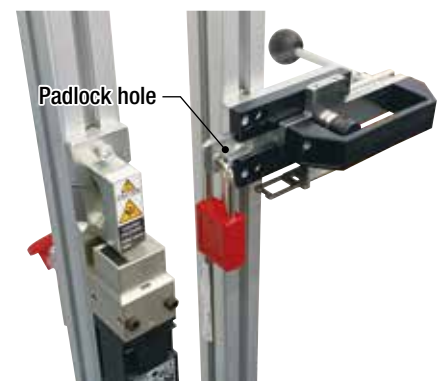
- 1** Grab the handle, and pull the knob to unlatch.
- 2** Slide the handle and insert the actuator.

When inserting the actuator, **1** unlatch the knob, **2** slide the handle. Two-step action prevents handles from inadvertent operation.



Padlock

Padlocks can be installed on the padlock hole. By using padlocks, other operators cannot operate the slide handle actuator, preventing inadvertent operation of machines and ensuring safety of operators. (padlocks must be purchased by the customer)



8.4 Protection of personnel within the safeguarded space
 Personnel required to perform tasks within the safeguarded space shall be protected by:
 a) Preventing the re-initiation of any motion or hazardous process while personnel are within the safeguarded space, for example locking a gate open;

Slide Handle Actuator for HS1T

Shock-resistant slide handle actuators ensure a safe work environment

HS1T slide handle actuator

Package quantity: 1

Item	Part No. Ordering No.	Remarks
Slide handle actuator	HS9Z-EH1L	Used with an interlock switch
Manual rear unlocking button kit for frame (*1)	HS9Z-FL54	Thickness of mounting part (*2) (Y): $30 \leq Y \leq 35$ (mm)
	HS9Z-FL55	Thickness of mounting part (*2) (Y): $35 < Y \leq 45$ (mm)
	[HS9Z-FL56]	Thickness of mounting part (*2) (Y): $45 < Y \leq 55$ (mm)
	[HS9Z-FL57]	Thickness of mounting part (*2) (Y): $55 < Y \leq 65$ (mm)

*1) Must be purchased when using a HS1T rear unlocking button model (sold separately)

*2) Mounting part refers to a part where the product will be attached (such as a frame).

- Items in [] are not for standard sale. To order, contact IDEC.
- For other panel thickness, contact IDEC.

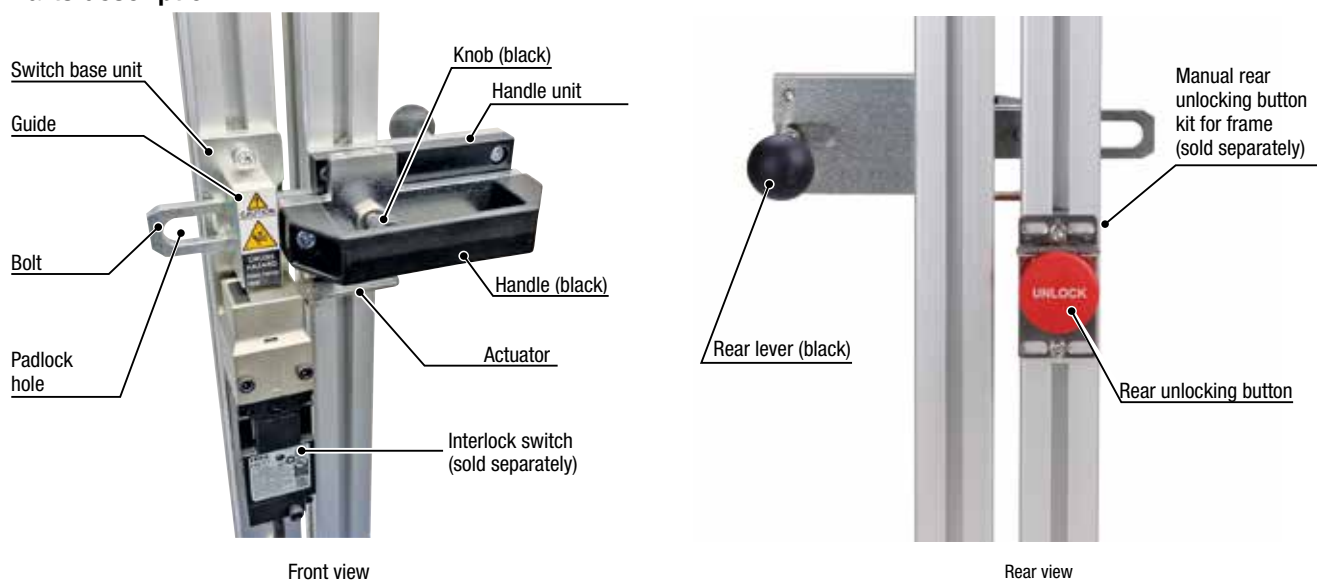
Specifications

Applicable interlock switches (*1)	HS1T interlock switches with solenoid
Operating temperature	-30 to +70°C (no freezing)
Mechanical durability	100,000 operations minimum
Applicable padlock shackle diameter	ø6 to 13
Padlock withstand load	50N minimum
Handle travel (approx.)	80mm (removed <—> inserted)
Weight (approx.)	2,000g

*1) Be sure to use a HS1T interlock switches with rear unlocking button.

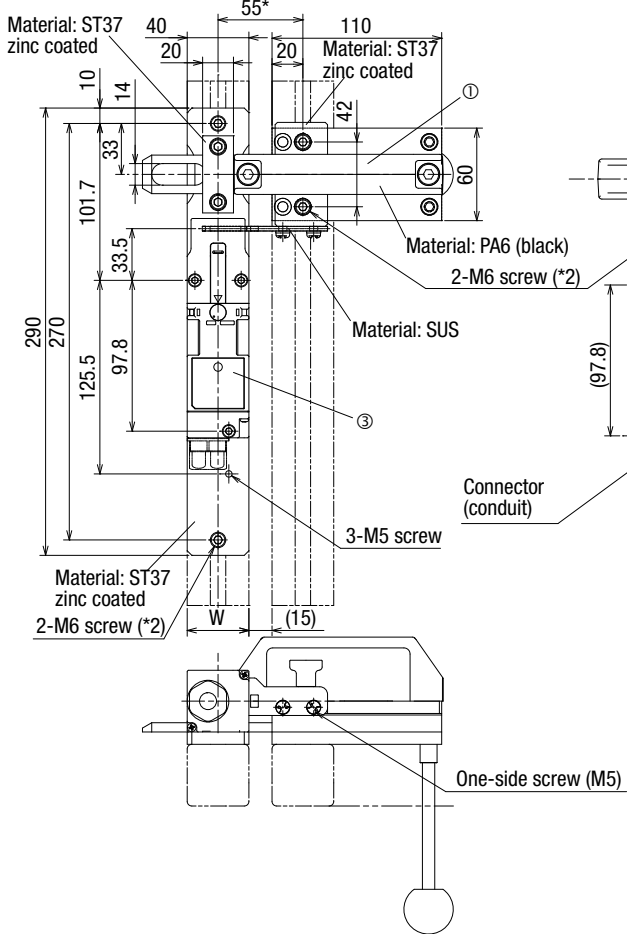
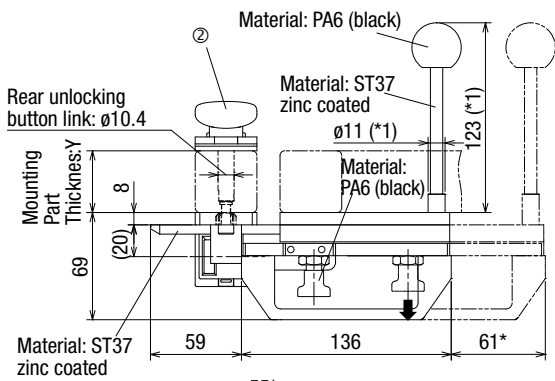
- The interlock switch must be prepared by the customer.
- For specifications on the interlock switch, see HS1T catalog.

Parts description



Dimensions in mm.

Dimensions



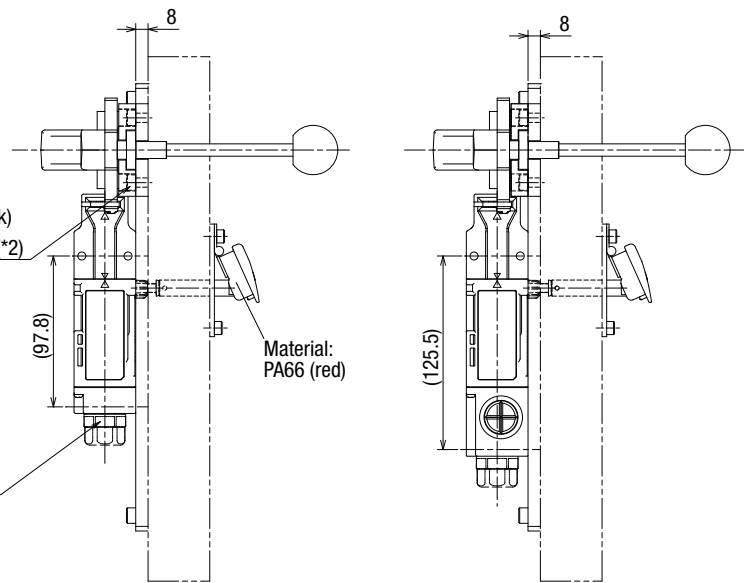
Legend	Item
①	HS9Z-EH1L slide handle actuator
②	Manual rear unlocking button kit for frame (HS9Z-FL5□: sold separately)
③	HS1T Interlock switch with rear unlocking button (HS1T-□44ZL**-□: sold separately)

Interlock switch with rear unlocking button selection table

Part No.	Mounting Part Thickness: Y
HS9Z-FL54	30 ≤ Y ≤ 35
HS9Z-FL55	35 < Y ≤ 45
[HS9Z-FL56]	45 < Y ≤ 55
[HS9Z-FL57]	55 < Y ≤ 65

Part No. in [] are not for standard sale. To order, contact IDEC.

HS1T-□44ZLSM-□ (Side conduit model)

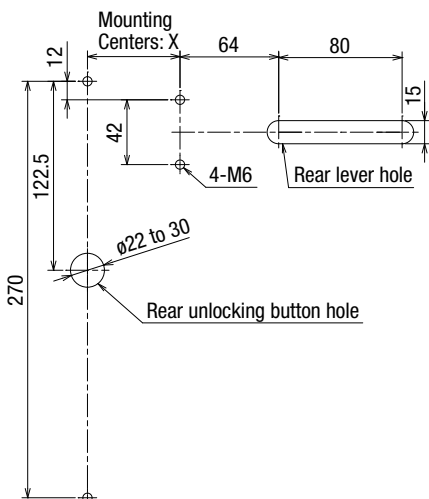


In the example shown on the left, a □40mm frame is used.

Note 1: Mount the product before operation and ensure that rear lever does not interfere with the frame.

Note 2: When choosing mounting part (frame), note that the mounting screws are M6.

Panel cut-out



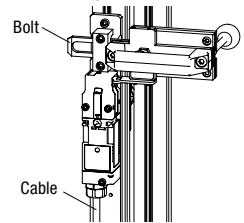
Applicable frame size (hinged door)

Frame Size: W	Mounting Centers: X
40 ≤ W ≤ 45	55 ≤ X ≤ 60
45 ≤ W ≤ 50	55 ≤ X ≤ 60
50 ≤ W ≤ 55	60 ≤ X ≤ 70
55 ≤ W ≤ 60	65 ≤ X ≤ 70

• Make sure to observe the applicable frame size, otherwise the actuator cannot be inserted/removed properly.

⚠ Safety Precautions

- In order to avoid electric shock or fire, turn power off before installation, removal, wire connection, maintenance, or inspection of the interlock switch.
- Do not disassemble or modify the interlock switch, otherwise a malfunction or an accident may occur.
- The slide handle actuator can be used with the HS1T only. Do not use with other interlock switches.
- HS9Z-EH5L slide handle actuator is also available.
- When using the slide handle actuator in the safety-related part of the system, make sure of proper operation while observing the safety standards and regulations of the relevant country or region where the actual machine/system is used. Also, perform a risk assessment before operation.
- Read the instruction sheet of interlock switch before installing the slide handle actuator.
- Do not move the handle by force when the door is locked. Otherwise damage will result.
- Install the slide handle actuator on the outside of the door. Do not install inside the door, otherwise the door cannot be opened or closed by the operator, affecting the operation and causing danger to the operator.
- Do not close the door when the bolt is slid out, otherwise damage will result.
- Install the slide handle actuator as shown at right, so that the cable hub faces downward. Do not install in any other direction.



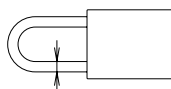
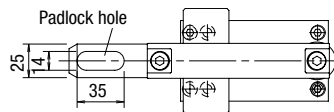
Instructions

For details on mounting, wiring, and circuit examples, see the instruction manual from the below URL.
 URL: <https://product.idec.com/?product=HS9Z-EH>



Padlock hole

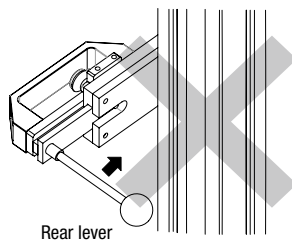
- Install the padlock or hasp on the padlock hole as shown at right.
- Make sure that the load on the padlock bolt does not exceed 50N, otherwise the slide handle actuator may be deformed or damaged.
- The applicable shackle diameter is $\phi 6$ to 13.



Applicable shackle diameter: $\phi 6$ to 13mm

Rear lever

- The actuator cannot be inserted using the rear lever.



Mounting

Confirm that the package contains the following parts.

Unit	Parts	Quantity
HS9Z-EH1L	① Switch base unit	1
	② Handle unit	1
	③ Actuator	1
	④ One-side screw (M5)	2
	⑤ Spring washer	2
	⑥ Rear lever	1

Fasten the switch base unit on the mounting frame or panel.
 Mounting screws and nuts are not supplied and must be provided by the user.
 *HS1T mounting screw thread length: 45mm (M5)

Recommended Tightening Torque

Screw	Recommended tightening torque
HS1T-□L mount screws (Three M5 screws)*	3.2 to 3.8 N-m
Switch base unit mount screws (Two M6 screws)*	4.5 to 5.5 N-m
Handle unit mount screws (Two M6 screws)*	4.5 to 5.5 N-m
Actuator mount screws (Two M5 one-side screws)	2.7 to 3.3 N-m

The above tightening torque of the mounting screw is the value confirmed with hex socket head bolts. When other screws are used and tightened to a smaller torque, make sure that the screws do not become loose after mounting.

Safety Distance and Minimum Gaps

Before installing the slide handle actuator, make sure to take safety distance and safety clearance into consideration in order to secure the distance between the mounting part (frame) and the hazard.

ISO 13852: Safety of machinery – Safety distances to prevent danger zones being reached by the upper limbs

ISO 13853: Safety of machinery – Safety distances to prevent danger zones being reached by the lower limbs

ISO 13854: Safety of machinery – Minimum gaps to avoid crushing of parts of the human body



Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

1. Notes on contents of Catalogs

- (1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.
Also, durability varies depending on the usage environment and usage conditions.
- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

2. Note on applications

- (1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards.
Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
 - i. Use of IDEC products with sufficient allowance for rating and performance
 - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
 - iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
 - i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
 - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
 - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference
If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

4. Warranty

(1) Warranty period

The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.

(2) Warranty scope

Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.

- i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
- ii. The failure was caused by reasons other than an IDEC product
- iii. Modification or repair was performed by a party other than IDEC
- iv. The failure was caused by a software program of a party other than IDEC
- v. The product was used outside of its original purpose
- vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs
- vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from IDEC
- viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)

Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- (1) Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

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EP1754-0

