

# IDEC

## INSTRUCTION SHEET (ORIGINAL) GRIP SWITCH HOUSING HE9Z-GSH52

B-1592(0)



Confirm that the delivered product is what you have ordered. Read this instruction sheet to make sure of correct operation. Make sure that the instruction sheet is kept by the end user.

### SAFETY NOTE

In this operation instruction sheet, safety precautions are categorized in order of importance to Warning and Caution.

### WARNING

Warning notices are used to emphasize that improper operation may cause severe personal injury or death.

### CAUTION

Caution notices are used where inattention might cause personal injury or damage to equipment.

## 1 Type

HE9Z-GSH52W

Body Material / Color  
Blank : PA66 / Black  
W : PBT / White

## 2 Specifications and Ratings

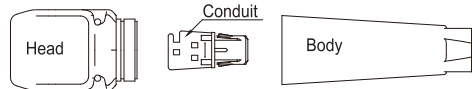
Applicable Standards	IEC60529/EN60529
Operating Temperature	-25 to +60°C (no freezing)
Pollution Degree	3
Electric Shock Protection	Class II (IEC61140)
Degree of Protection	IP20

### Application

- Housing to install the HE5B enabling switch for use as a 3-position grip switch.
- Housing to install the AB6M or AS6M switch for use as a hand-held switch.

## 3 Unpacking

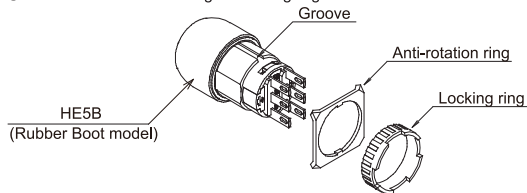
Check if the product is what you have ordered and there are no lack of parts or damages due to transport accident, before use. The package contains: A head, a body, a conduit, and an instruction sheet.



## 4 Assembling

- Applicable Switches
  - HE5B enabling switch
  - Note: The following switches (not enabling switches) can also be used with the HE9Z-GSH52 grip-switch housing for a hand-held switch.
    - AB6M Pushbutton Switch (except AB6M-V)
    - AS6M Selector Switch
    - AS6M Key Selector Switch
- Wiring
  - Applicable cable outside diameter: 3.5 to 7.1 mm
  - Applicable wire size : 0.5 mm<sup>2</sup> maximum × 1 pc.
  - Note: Comply with IEC60204-1 when wiring.
- Assembling
  - Assemble the switch and the HE9Z-GSH52 housing according to the following instructions ① to ⑦.

① Remove the anti-rotation-ring and locking ring from the switch.

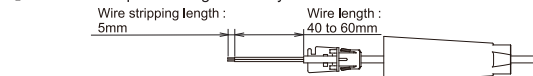


② Insert the switch into the head housing, and tighten using the locking ring.

Note 1: The head housing has anti-rotation projections. When assembling, align the grooves on the switch with the projections.

Note 2: Anti-rotation ring is not necessary when installing the switch on the grip-switch housing.

Note 3: Recommended tightening torque of the locking ring:  
HE5B enabling switch: 0.29 to 0.49 N·m  
Other switches : 0.68 to 0.88 N·m  
Tighten the locking ring using the ring wrench (Part No.: MT-001).



④ Tie the cable to the conduit using two cable ties.  
Recommended cable tie: T18R (HellermannTyton Co.,Ltd.)  
Recommended application tool: MK8 (HellermannTyton Co.,Ltd.)  
Recommended tightening strength: 11.6 to 44.2N

Note: See the following notes and figures for tightening the cable tie.

(4-1) Direction of cable tie

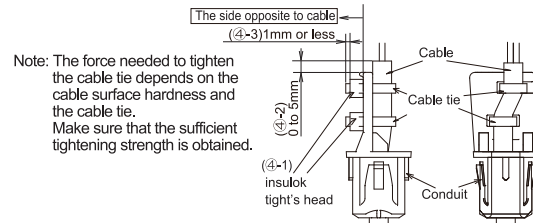
Make sure the head of the cable tie does not face the cable, otherwise the cable cannot be fixated tightly, which may cause the displacement of the cable when pulled.

(4-2) Cable tie position

Make sure that the end of cable sheath projects 0 to 5 mm from the top surface of conduit. Otherwise the cable cannot be fixated tightly.

(4-3) Cutting off the excess of cable tie

Make sure that the excess is 1mm or less.



⑤ Pass an insulation tube through each wire and solder the wire onto the terminal. Then attach the insulation tube on the terminal.

Note: Solder the terminal at a temperature of 260°C or less within 3 seconds. (Use non-corrosive liquid rosin as soldering flux. Sn-Ag-Cu type is recommended when using lead-free solder.)

⑥ To avoid excessive twisting or tension on the cable, tighten the body to the head while fixating the head and cable.  
• Recommended tightening torque: 1.0±0.2N·m

⑦ Attach the conduit to the body by pulling the cable.

Note: Make sure to attach the conduit to the body at the end of the process. Otherwise an excessive twist or tensile force will be applied to the cable by assembly work, which will cause wire disconnection or failure.

Note the followings when assembling.

(7-1) Direction of the conduit

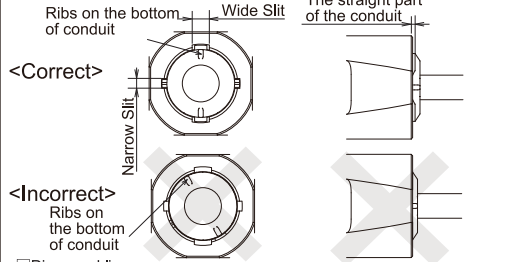
Make sure to align the ribs on the bottom conduit and the centers of the wider slits on the bottom of body before pulling the cable.

(7-2) Checking the fit of conduit

Check whether the conduit's straight part projects from the body. If not, the conduit is not attached to the body completely.

(7-1) Conduit direction

(7-2) Checking whether the conduit is attached to the body



□ Disassembling  
Turn off power before disassembly.

① Removing the conduit  
Insert a slotted screwdriver (Size : 1.2mm or less) into two wide slits at the bottom of the body, and disengage the conduit.

② Loose the body.  
Note: Turn off the power to the grip switch housing before disassembling. Failure to turn power off may cause electrical shocks or fire hazard.

Note: Do not disassemble the housing during operation, otherwise failure may result.

Note: Disassemble according to the above mentioned procedure.

Loosening the body first turns the cable with the body, resulting in excessive twisting and disconnection.

## 5 Notes for Operation

- The body of grip switch housing is made of PA66 or PBT. To clean use a detergent compatible with the materials.
- Do not install the grip switch in the environment subject to:
  - Dust
  - Oil or chemical splashes
  - Corrosive or combustible gasses
  - Outdoor
  - Condensation due to rapid temperature change

### WARNING

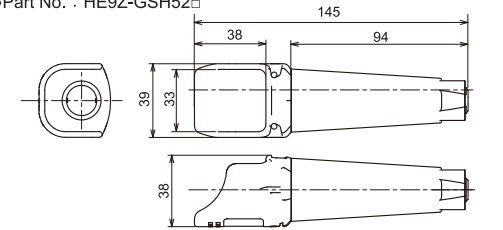
- Read this instruction sheet to make sure of correct operation before starting installation, wiring, operation, maintenance, and inspection.
- Turn off the power to the grip-switch housing before starting installation, wiring, maintenance, and inspection of the enabling switch. Failure to turn power off may cause electrical shocks or fire hazard.
- Use wires of proper size to meet voltage and current requirements. Using improper wires may cause fire hazard due to abnormal heat generation.
- Do not disassemble or modify the switch. Also do not attempt to disable the grip switch function, otherwise a failure or an accident will result.
- The grip switch is not waterproof (IP20). Do not use the grip switch in the environment subject to water or oil. Otherwise malfunction, electric shock, or fire may be caused.

### CAUTION

- Use the applicable switches only. Usage of unauthorized switches is not included in the warranty.
- Follow the instruction on this sheet when assembling the housing and switch.
- When assembling or disassembling, unscrew the housing in the specified order. Otherwise the wire and switch may be damaged.
- When assembling or disassembling, make sure that no parts are damaged, and that no foreign object enters inside.
- Do not disassemble the housing during operation. When tampering is anticipated, provide a tamper-evident measure (when someone attempts disassembling, the trace is left on the product).
- Do not twist or pull the cable with an excessive force, otherwise the wire and switch may be damaged.
- Do not apply an excessive shock such as by dropping. When an excessive shock has been applied, confirm normal operation before usage.
- When assembling, make sure that no foreign objects enter inside.
- Do not maintain the HE5B constantly in the enabling position by taping down the button part or by other means.
- The button unit may come off if the grip switch is dropped. Reinstall the button unit only if it is not damaged and operates normally. Make sure to turn off the power before reinstalling the button unit, because the contact turns on while it is installed on the grip switch. Replace with a new button unit when losing or damaging the button unit.  
Part No. AB6M-BK1-□ (□ : button color)

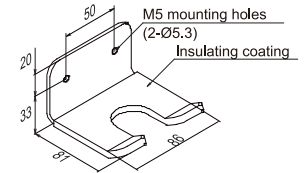
## 6 Dimensions (mm)

• Part No. : HE9Z-GSH52□

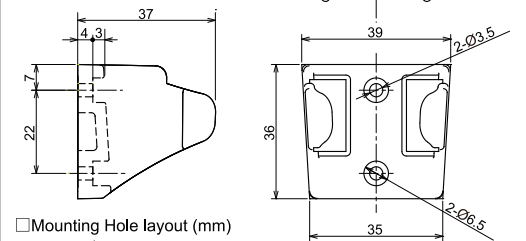


□ Mounting Bracket (sold separately)

• Part No.: HE9Z-GH1  
• Material : SUS304  
• Thickness : t=3.0mm



• Part No.: HE9Z-GH5□  
□ Body material/color  
Blank : PA66 / Black  
W : PBT / White



□ Mounting Hole layout (mm)

- Mounting screw: M3 Phillips pan head screw×2
- Mounting screw length: [When M3 nut is used] Mounting panel thickness + M3 nut thickness + washer thickness + 4mm minimum [When M3 nut is not used] Mounting panel thickness + washer thickness+ 4mm minimum
- \* The total thickness of mounting screw head and washer must be 3mm maximum.
- \* Use a washer with a diameter of 6.5mm maximum.
- Recommended screw tightening torque: 0.5 to 0.8 N·m

### CAUTION

- Install mounting bracket and grip switch holder in the direction as shown above.

## 7 Precaution for Disposal

Dispose of GRIP-SWITCH HOUSING HE9Z-GSH52 as an industrial waste.  
DECLARATION OF CONFORMITY  
We, IDEC CORPORATION, 7-31, Nishimiyahara 1-chome Yodogawa-ku, Osaka 532-8550, Japan declare under our sole responsibility that the product: Description: Grip Switch Housing Model No: HE9Z-GSH52 to which this declaration relates is in conformity with the EC Directive on the following standard(s) or other normative document(s). In case of alteration of the product, not agreed upon by us, this declaration will lose its validity. Applicable EC Directive: LOW Voltage Directive (2006/95/EC) Applicable Standard(s): EN60529

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