

HS6B Subminiature Interlock Switches

Key features:

- Only 78 x 30 x 15mm
- Two actuator entrances provide flexibility for installation options
- Integrated molded cable reduces wiring time
- IP67 (IEC60529)
- Direct Opening Action
- Actuators comply with ISO14119 and EN1088



Part Numbers

| Contact Configuration | Cable Length | Part Number |
|-----------------------|--------------|-------------------|
| 1NC-1NO | 1m | HS6B-11B01 |
| | 3m | HS6B-11B03 |
| | 5m | HS6B-11B05 |
| 2NC | 1m | HS6B-02B01 |
| | 3m | HS6B-02B03 |
| | 5m | HS6B-02B05 |
| 2NC-1NO | 1m | HS6B-12B01 |
| | 3m | HS6B-12B03 |
| | 5m | HS6B-12B05 |
| 3NC | 1m | HS6B-03B01 |
| | 3m | HS6B-03B03 |
| | 5m | HS6B-03B05 |

Standard stock items in bold.

Actuator Keys (order separately)

| Appearance | Part Number | Shape |
|------------|-------------|--------------------------------|
| | HS9Z-A61 | Straight |
| | HS9Z-A62 | Right-angle |
| | HS9Z-A65 | Adjustable actuator 90° angle |
| | HS9Z-A66 | Adjustable actuator 180° angle |

Actuators are not included and must be ordered separately.

Contact Configuration & Operation Chart

| Type | Contact Configuration | Contact Operation Chart |
|---------|-----------------------|-------------------------|
| HS6B-11 | 1NC-1NO | |
| HS6B-02 | 2NC | |
| HS6B-12 | 2NC-1NO | |
| HS6B-03 | 3NC | |

Specifications

| | | |
|---|--------------------|---|
| Conforming to Standards | | EN1088, IEC60947-5-1, EN60947-5-1, GS-ET-15, IEC60664-1, IEC60204-1, EN60204-1, UL508, CSA C22.2 No. 14 |
| Operating Temperature | | -25 to +70°C (no freezing) |
| Storage Temperature | | -40 to +80°C (no freezing) |
| Relative Humidity | | 45 to 85% RH (no condensation) |
| Storage Humidity | | 95% maximum (no condensation) |
| Altitude | | 2,000m maximum |
| Pollution Degree | | 3 |
| Rated Insulation Voltage (U _i) | | 300V |
| Impulse Withstand Voltage (U _{imp}) | | 4kv |
| Insulation Resistance | | Between live & dead metal parts: 100MΩ maximum Between positive & negative live parts: 100MΩ minimum |
| Electric Shock Protection Class | | Class II |
| Degree of Protection | | IP67 (IEC60529) |
| Vibration Resistance | Operating Extremes | 5 to 55 Hz, half amplitude 0.5 mm |
| | Damage Limits | 30Hz, half amplitude 1.5mm |
| Contact Resistance | | 300mΩ maximum |
| Shock Resistance | Operating Extremes | 300m/s ² (30G) |
| | Damage Limits | 1000m/s ² (100G) |
| Direct Opening Travel | | 8mm minimum |
| Direct Opening Force | | 60N minimum |
| Thermal Current (I _{th}) | | 2.5A |
| Operating Frequency | | 1200 operations/hour |
| Mechanical Life | | 1,000,000 operations (GS-ET-15) |
| Recommended Actuation Speed | | 0.05 to 1.0m/s |
| Wire Tensile Strength | | 50N minimum |
| Electrical Life | | 100,000 operations (at full rated load) |
| Conditional Short-Circuit Current | | 50A 250V (IEC60947-5-1, IEC60269-1, -2) |
| Weight | | 120g |

Contact Ratings

| | | | | | |
|---|----|-------------------------------------|------|---------|--------|
| | | Operating Voltage (U _e) | 30V | 125V | 250V |
| | | AC | | | |
| Rated Operating Current (I _e) | AC | Resistive load (AC-12) | – | 2.5A | 1.5A |
| | | Inductive load (AC-15) | – | 1.5A | 0.75A |
| | DC | Resistive load (DC-12) | 2.5A | 1.1A | 0.55A |
| | | | (2A) | (0.4)A | (0.2A) |
| | | Inductive load (DC-13) | 2.3A | 0.55A | 0.27A |
| | | | (1A) | (0.22A) | (0.1A) |

Overview

XW Series E-Stops

Interlock Switches

Enabling Switches

Safety Control Relays

Light Curtains

AS-Interface Safety at Work

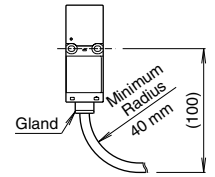
Installation Notes

Recommended Screw Torque

- Safety switch body installation (M4 screw): 1.0~1.5N·m
- Actuator installation (M4 screw): 1.0~1.5N·m

Handling Cables

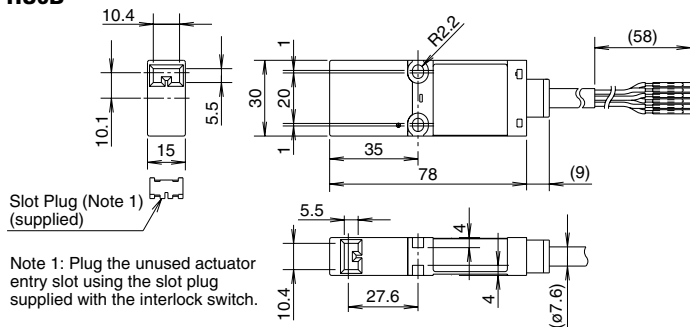
- Do not tighten or loosen the fastened cable conduit of the safety switch
- Minimum bend radius of installed cable: 40mm



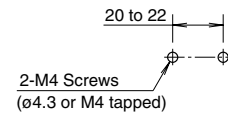
Wiring Designations

| Part Number | Contact | Terminal # | Color |
|-------------------------|---------|------------|---------------------|
| HS6B-12B01 (2NC-1NO) | NC | 11-12 | blue-blue/white |
| | NC | 21-22 | brown-brown/white |
| | NO | 33-34 | orange-orange/white |
| HS6B-03B01 (3NC) | NC | 11-12 | blue-blue/white |
| | NC | 21-22 | brown-brown/white |
| | NC | 31-32 | orange-orange/white |
| HS6B-11B01 (1NC-1NO) | NC | 11-12 | blue-blue/white |
| | NO | 33-34 | orange-orange/white |
| HS6B-02B01 (2NC) | NC | 11-12 | blue-blue/white |
| | NC | 31-32 | orange-orange/white |

Dimensions (mm) HS6B

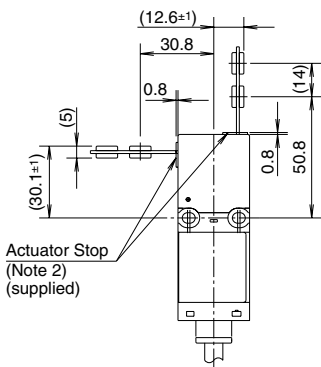


Installation

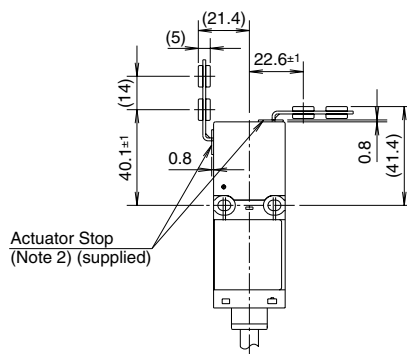


The interlock switch can be mounted in two directions.

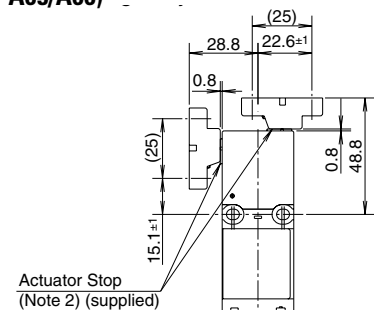
Using straight actuator (HS9Z-A61)



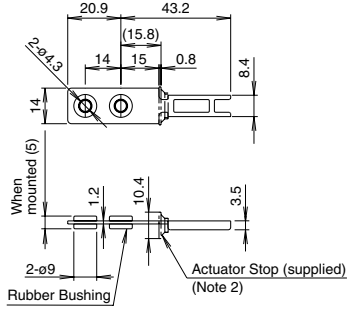
Using Right-angle actuator (HS9Z-A62)



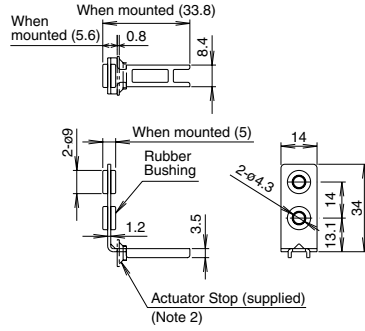
Using Angle Adjustable Actuator (HS9Z-A65/A66)



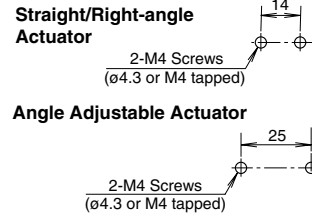
Straight actuator (HS9Z-A61)



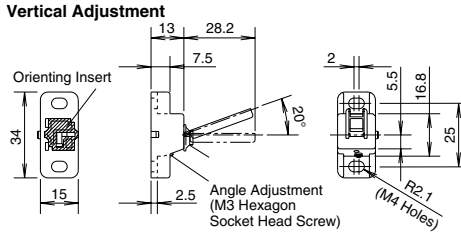
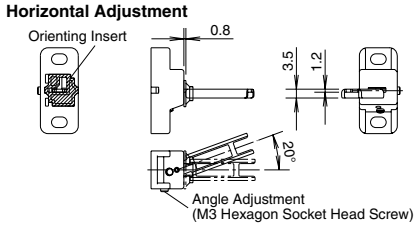
Right-angle actuator (HS9Z-A62)



Actuator Installation



Adjustable Actuator (HS9Z-A65)



The orientation of actuator adjustment (horizontal/vertical) can be changed using the orienting insert (white plastic) installed on the back of the actuator.

The base is made of glass-reinforced PA66 (66 nylon). Angle adjustment screws are stainless steel. When using adhesive on screws, take material compatibility into consideration.

Note 2: After mounting the actuator, remove the actuator stop from the interlock switch.

Adjustable Actuator (HS9Z-A66)

The HS9Z-A65 and HS9Z-A66 have the metal key inserted in opposite directions.

