

HS2P Interlock Plug Unit

Interlock plugs for controlling the safety at production sites.

- Ideal as a portable key for bringing into the hazardous area.
- Removing the interlock plug maintains the interrupted status of load circuit and control circuit.
- Bayonet-style plug removal/installation ensures stability.
- Prevents intentional short-circuit with a wire or metal chip. (Double-break internal contacts achieve high safety.)
- $\phi 30\text{mm}$ mounting hole
- Plastic housing with die-cast aluminum plug
- Easy wiring using M3.5 terminal screw.
- Terminal cover is provided as standard.



- See website for details on approvals and standards.



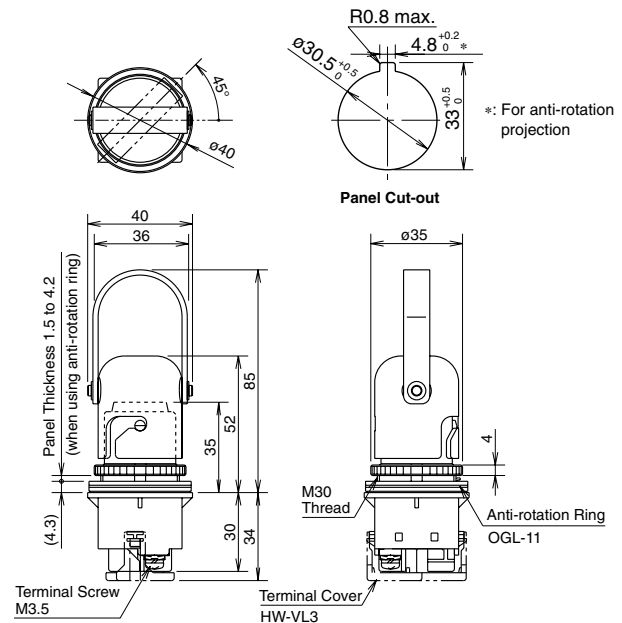
Interlock Plug Unit

Part No.
HS2P-1M

Specifications

Applicable Standards	UL508 (UL listed) CSA C22.2, No. 14 (c-UL listed) UL498 CSA C22.2 No. 182.1 EN 1088 (applicable standards for use)
Rated Insulation Voltage (Ui)	250V
Rated Thermal Current (Ith)	10A
Operating Temperature	-20 to +50°C (no freezing)
Relative Humidity	45 to 85% (no condensation)
Storage Temperature	-40 to +80°C (no freezing)
Pollution Degree	3
Insulation Resistance	100 M Ω minimum (500V DC megger)
Dielectric Strength	Between live and dead metal parts: 2000V, 1 minute Between terminals of the same poles: 2000V, 1 minute
Contact Resistance	100 m Ω minimum (initial value)
Shock Resistance	Damage limits: 1000 m/s ²
Vibration Resistance	Operating extremes: 10 to 55 Hz, amplitude 0.5 mm minimum Damage limits: 30 Hz, amplitude 1.5 mm minimum
Operation Method	With dedicated plug
Mechanical Life	30,000 operations minimum
Operating Characteristics	Operating angle 45° Pull-out stroke 23.0mm minimum
Interlock Plug Strength	Rotation strength when locked: 3.0 N·m minimum
Weight (approx.)	150g

Dimensions



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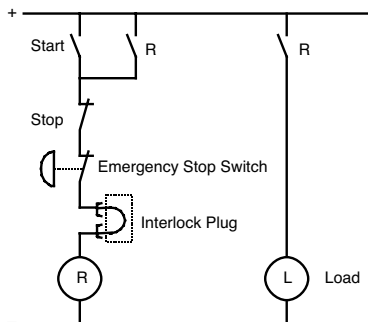
Safety Precautions

- Do not install the interlock plug unit in places subject to oil or water. Electric shock or fire hazard may be caused if the interlock plug is operated when the plug part is contaminated with oil or water.
- Interlock plug units are used to ensure the safety of operators who carry the plugs. Provide only one plug to a guard. Otherwise the hostage control function is lost, endangering the operators. Ensure complete safety management so that the function is maintained.
- In order to avoid electric shocks or fire, turn power off before installation, removal, wire connection, maintenance, or inspection of the interlock plug unit.
- Do not disassemble or modify the interlock plug unit. Also do not disable the function of interlock plug unit intentionally. Otherwise a malfunction or an accident may occur.

Instructions

- The plug of HS2P interlock plug units resemble the plug of HS1P interlock plug units, however, these plugs are not interchangeable. Do not use the plugs of other types, otherwise the interlock plug units will be damaged. The plugs can be distinguished with the handle color.
 HS1P: black
 HS2P: aluminum color
- Do not store the interlock plug units in a dusty, humid, or organic-gas atmosphere. Also avoid direct sunlight.
- Make sure that the interlock plug unit is not energized when removing or installing the plug (after operating the emergency stop button shown in the circuit example shown below). Do not start or stop the machine by plug removal/installation, otherwise the interlock plug unit may fail.

[Interlock Plug Circuit Example]



- Note 1: When using the main circuit on AC, connect emergency stop switch to Line, and interlock plug unit to Neutral.
- Note 2: When using the main circuit on DC, connect to the + line with emergency stop switch first followed by the interlock plug unit.

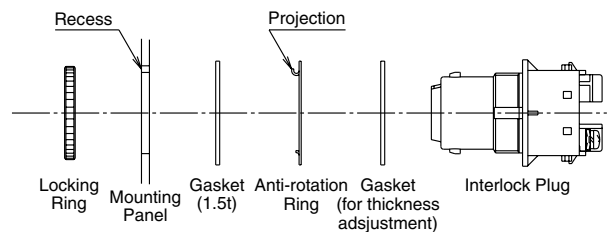
Mounting Panel Thickness and Gaskets

The HS2P interlock plug is supplied with gaskets (1.5-mm-thick × 2 and 0.5-mm-thick × 1) and an anti-rotation ring. Adjust the number of gaskets depending on the mounting panel thickness as shown in the table below. Do not use other combination of gaskets, otherwise the interlock plug will be damaged.

Mounting Panel Thickness (mm)	1.5 to 2.7	2.0 to 3.2	3.0 to 4.2
Gasket Combination	1.5t × 2 0.5t × 1	1.5t × 2	1.5t × 1 0.5t × 1

Installing the Anti-rotation Ring

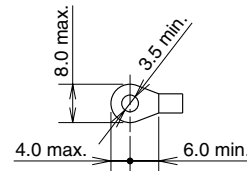
When mounting the HS2P interlock plug on a panel, align the recess on the panel and the projection of the anti-rotation ring as shown below.



Installing the Locking Ring

Using locking ring wrench OR-12 sold separately, tighten the locking ring to a torque of 1.8 to 2.2 N·m. Do not tighten with excessive force, otherwise the interlock plug will be damaged.

Applicable Crimping Terminal



- Use an insulation tube on the crimping terminal.
- When using stranded wires, make sure that loose wires do not cause short circuit. Also, do not solder the terminal to prevent loose wires.

Applicable Wire Size

- ø2.0 mm² maximum (solid wire: ø1.6mm maximum) × 2

Recommended Tightening Torque of Mounting Screws (M3.5)

- 0.9 to 1.1 N·m