

Zerone IP68 Connector

Zerone IP68 Wire Connector User Manual

Model: IP68 Connector (2-Pin, 3-Pin, 4-Pin)

1. PRODUCT OVERVIEW

The Zerone IP68 Wire Connector is a robust and reliable solution for connecting electrical wires in various applications, especially those requiring protection against water and dust. Its IP68 rating ensures high resistance to environmental factors, making it suitable for outdoor and harsh conditions. The connector features a flame-retardant PA66 shell and copper contacts for safe and efficient electrical connections. This connector is available in 2-pin, 3-pin, and 4-pin configurations to accommodate different wiring needs. Its compact design facilitates easy installation without the need for additional screws for fixing.



Image 1.1: Zerone IP68 Wire Connector with examples of outdoor applications, highlighting its waterproof and compact design.

2. SAFETY INFORMATION

Please read all instructions carefully before installation and use. Failure to follow these instructions may result in electrical shock, fire, or other hazards.

- Ensure power is disconnected before installing or servicing the connector.
- Only use the connector within its specified current and voltage ratings (24A/450V).
- Ensure proper wire gauge (0.75-2.5mm²) is used for secure connections.
- Do not modify the connector in any way.
- Consult a qualified electrician if you are unsure about any part of the installation process.

3. PACKAGE CONTENTS

Upon opening the package, verify that all components are present and undamaged:

- 1 x Zerone IP68 Wire Connector (selected pin configuration)



Image 3.1: An assembled Zerone IP68 Wire Connector, ready for installation.

4. SETUP AND INSTALLATION

The Zerone IP68 Wire Connector is designed for straightforward installation. Follow these steps to ensure a secure and waterproof connection:

1. **Prepare Wires:** Strip approximately 7-9mm of insulation from the ends of the wires you intend to connect. Ensure the wire diameter is within the specified range of 0.75-2.5mm².
2. **Disassemble Connector:** Unscrew the end caps and the main body of the connector to expose the terminal block.
3. **Insert Wires:** Carefully insert the stripped wire ends into the corresponding terminals of the connector. Ensure each wire is fully seated and the copper strands are securely held by the terminal screws (if applicable, or push-in mechanism). Match the polarity (live, neutral, ground) if applicable for your wiring.
4. **Secure Connections:** Tighten any terminal screws to firmly secure the wires. Gently tug on each wire to confirm it is properly secured and cannot be pulled out easily.
5. **Reassemble Connector:** Carefully reassemble the connector body, ensuring the internal seals are correctly positioned. Screw the end caps back on tightly. The IP68 rating relies on these caps being

fully tightened to create a waterproof seal around the cables.



Image 4.1: Disassembled connector components, illustrating the internal structure for wire insertion.



Image 4.2: The male and female sections of the connector, showing the pin configurations.

5. OPERATION

Once the Zerone IP68 Wire Connector is properly installed and all connections are secure, its operation is passive. It functions as a sealed conduit for electrical current between two wire segments.

- **Connection:** Ensure the male and female ends of the connector are fully engaged and the locking mechanism (if present, typically a threaded collar) is tightened to maintain the waterproof seal.
- **Power On:** After confirming all connections are secure and sealed, you may safely restore power to the circuit.
- **Verification:** Verify that the connected device or circuit is functioning as expected.



IP68 waterproof, designed for outdoor use.
Flame retardant shell, safe and reliable

Image 5.1: Example of the connector in an outdoor garden lighting application, demonstrating its intended use.

6. MAINTENANCE

The Zerone IP68 Wire Connector is designed for minimal maintenance due to its durable and sealed construction. However, periodic checks can help ensure long-term reliability:

- **Visual Inspection:** Periodically inspect the connector for any signs of physical damage, cracks, or degradation of the outer casing.
- **Seal Integrity:** Ensure the end caps remain tightly screwed to maintain the waterproof seal. If the connector is exposed to extreme temperature fluctuations, check for any loosening.
- **Cleaning:** If necessary, clean the exterior of the connector with a damp cloth. Do not use harsh chemicals or abrasive cleaners.
- **Environmental Factors:** While IP68 rated, prolonged exposure to extreme conditions (e.g., constant submersion beyond specified depth, corrosive chemicals) should be avoided if possible to maximize lifespan.

7. TROUBLESHOOTING

If you encounter issues with your Zerone IP68 Wire Connector, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
No power to connected device	Loose wire connection inside the connector. Incorrect wiring polarity. External power supply issue.	Disconnect power, open connector, re-seat and tighten wires. Verify correct wiring (live, neutral, ground). Check power source and circuit breaker.
Water ingress / Moisture inside connector	End caps not tightened sufficiently. Damaged seals. Incorrect wire diameter for seals.	Disconnect power, dry connector, re-tighten end caps firmly. Inspect seals for damage; replace connector if seals are compromised. Ensure wire diameter matches connector's sealing range.
Connector feels loose or unstable	End caps not fully engaged. Physical damage to connector body.	Ensure both male and female parts are fully pushed together and any locking rings are tightened. Inspect for cracks; replace if damaged.

8. SPECIFICATIONS

Attribute	Detail
Model	IP68 Wire Connector
Brand	Zerone
Material	PA66 (Insulator), Copper (Contacts)
Color	Black
Optional Pin Types	2 Pin, 3 Pin, 4 Pin
Current / Voltage Rating	24A / 450V
Applicable Wire Diameter	0.75 - 2.5 mm ²
IP Rating	IP68
Flame Retardant	Yes (PA66 shell)

9. WARRANTY AND SUPPORT

Specific warranty information for the Zerone IP68 Wire Connector is not provided in this manual. For details regarding warranty coverage, returns, or technical support, please refer to the product's purchase documentation or contact the retailer/manufacturer directly.

For further assistance, you may visit the [Zerone Store on Amazon](#).

