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> HOFTRONIC IP68 Waterproof Cable Connector - 2/3 Pin - 2.5mm<sup>2</sup> - Model 5437090 Instruction Manual

## HOFTRONIC 5437090

# HOFTRONIC IP68 Waterproof Cable Connector - Model 5437090

Instruction Manual

## INTRODUCTION

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Welcome to the instruction manual for your HOFTRONIC IP68 Waterproof Cable Connector. This connector is engineered for reliable and safe electrical connections in demanding outdoor and underground environments. Please read this manual carefully before installation and use to ensure proper function, safety, and longevity of the product.

## SAFETY INFORMATION

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Always adhere to local electrical codes and safety regulations. Improper installation can lead to electrical shock, fire, or other hazards. This product should only be installed by a qualified electrician or competent person.

- **Disconnect Power:** Always ensure the main power supply is disconnected before attempting any installation, maintenance, or troubleshooting.
- **Voltage Compatibility:** This connector is designed for 220V-230V installations. **It is not suitable for 12V systems.**
- **Cable and Wire Specifications:** Use only cables and wires that meet the specified diameter and cross-section requirements (Cable Ø 4-12 mm, Wire 0.5-2.5 mm<sup>2</sup>).
- **Proper Sealing:** Ensure all components are correctly assembled and tightened to maintain the IP68 waterproof rating. Failure to do so may compromise water resistance and lead to electrical hazards.
- **Underground Installation:** When installing underground, ensure the connector is placed at a maximum depth of 4 meters.
- **Environmental Conditions:** The connector is designed for operating temperatures from -40°C to 105°C. Avoid exceeding these limits.

## PRODUCT FEATURES

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The HOFTRONIC IP68 Waterproof Cable Connector offers robust features for secure and durable electrical connections:

- **IP68 Waterproof Rating:** Provides reliable protection against dust and continuous immersion in water,

making it ideal for permanent outdoor and underground installations.

- **Versatile Compatibility:** Suitable for connecting 2-core and 3-core cables.
- **Adjustable Cable Inlet:** Accommodates cable diameters from 4 mm to 12 mm.
- **Wire Cross-Section:** Compatible with wire cross-sections from 0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup>.
- **Underground Use:** Can be installed underground up to a maximum depth of 4 meters.
- **Wide Operating Temperature:** Functions effectively in temperatures ranging from -40°C to 105°C.
- **TÜV Certified:** Ensures compliance with safety and quality standards.



**Figure 1:** Adjustable Cable & Wire Inlet. The connector is suitable for 2-core or 3-core connections and has an adjustable wire inlet of 0.5 to 2.5 mm<sup>2</sup> and an adjustable cable inlet of 4 to 12 mm.



# WATER & DUST RESISTANT

the cable connectors IP68 rated enclosure makes it perfectly suitable for permanent outdoor installation.



**IP68**  
RATING

**Figure 2:** Water & Dust Resistant. The cable connector's IP68 rated enclosure makes it perfectly suitable for permanent outdoor installation.

# MAXIMUM 4 METERS UNDERGROUND

▶▶▶ the cable connector can be used up to a maximum of 4 meters underground and allows for an operating temperature of -20 °C up to 100 °C.



**OPERATIONAL**  
FROM -20 °C  
TO 100 °C

**Figure 3:** Maximum 4 Meters Underground. The cable connector can be used up to a maximum of 4 meters underground and allows for an operating temperature of -20°C up to 100°C.

## SETUP AND INSTALLATION

### General Guidelines

- Ensure all power is disconnected at the main circuit breaker before starting installation.
- Verify that the cables and wires you intend to connect are compatible with the connector's specifications.
- Plan the cable routing to avoid unnecessary stress on the connector.

### Connection Steps

1. **Disassemble the Connector:** Unscrew the two end caps and remove the internal terminal block from the main body of the connector.
2. **Prepare Cables:** For each cable, strip approximately 20-25 mm of the outer insulation. Then, strip about 7-9 mm of insulation from each individual wire (live, neutral, earth).
3. **Insert Wires:** Loosen the screws on the terminal block. Insert the stripped ends of the wires into the corresponding terminals (Live, Neutral, Earth). Ensure no stray wire strands are exposed.
4. **Tighten Terminals:** Securely tighten the screws on the terminal block to firmly hold the wires. Gently tug on

each wire to confirm it is properly secured.

5. **Assemble Connector:** Carefully guide the prepared cables through the end caps and into the main body of the connector, ensuring the terminal block is correctly seated.
6. **Tighten Glands:** Hand-tighten the end caps firmly onto the main body. Then, use an appropriate wrench to tighten the cable glands on both ends to ensure a watertight seal. Do not overtighten.
7. **Final Check:** Visually inspect the assembled connector to ensure all parts are correctly aligned and tightened.



**Figure 4:** Internal Wiring Detail. This image shows the internal terminal block where the individual wires are connected.

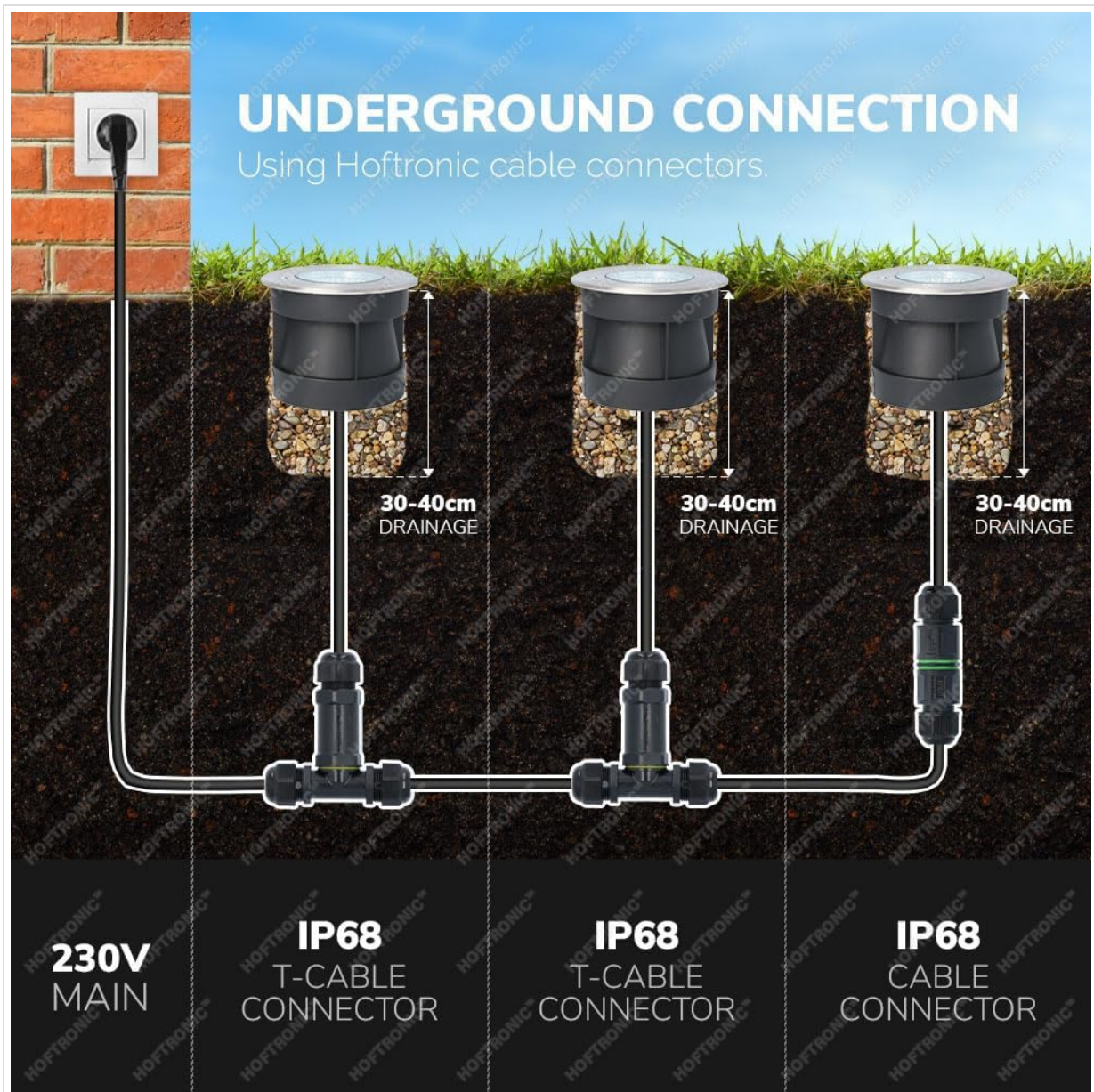


**Figure 5:** Connection Process. A visual guide demonstrating how to prepare and connect wires to the terminal block and secure them within the connector.

## Typical Application Examples



**Figure 6:** Underground Connection for Spotlights. An example of using HOFTRONIC cable connectors for underground wiring of garden spotlights.



**Figure 7:** Underground Connection for Ground Lights. An example of using HOFTRONIC cable connectors for underground wiring of ground lights, including recommended drainage.

## OPERATING INSTRUCTIONS

Once correctly installed and sealed, the HOFTRONIC IP68 Waterproof Cable Connector operates passively, providing a secure and continuous electrical connection. No user interaction is required during operation. Ensure all connections are tight and the connector is fully sealed before restoring power to the circuit.

## MAINTENANCE

Regular maintenance is minimal but important to ensure long-term reliability:

- **Periodic Inspection:** Periodically inspect exposed connectors for any signs of physical damage, cracks, or loose components. For underground installations, this may require excavation.
- **Cleanliness:** Keep the exterior of the connector clean from dirt and debris, especially around the cable glands, to prevent material buildup that could compromise the seal over time.
- **Seal Integrity:** Ensure the cable glands remain tightly secured. If any part of the connector appears loose or damaged, disconnect power immediately and inspect for water ingress. Replace if necessary.

## TROUBLESHOOTING

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If you encounter issues, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No power to connected device	Loose wire connection in terminal block Main power supply off Damaged cable	Disconnect power, open connector, re-tighten wire terminals. Check circuit breaker. Inspect cables for damage; replace if necessary.
Water ingress inside connector	Cable glands not tightened sufficiently Damaged O-rings or seals Incorrect cable diameter used	Disconnect power, open connector, ensure O-rings are in place and re-tighten glands. Replace if seals are damaged. Ensure cable diameter is within 4-12mm range.
Connector feels loose	End caps not fully tightened	Disconnect power, re-tighten end caps firmly.

## TECHNICAL SPECIFICATIONS

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Specification	Value
Model Number	5437090
Material	Plastic
Color	Black
Input Voltage	230V AC
Cable Diameter Compatibility	Ø 4-12 mm
Wire Cross-Section Compatibility	0.5 - 2.5 mm <sup>2</sup>
IP Rating	IP68
Maximum Underground Depth	4 meters
Operating Temperature	-40°C to 105°C
Dimensions (L x Ø)	76 mm x 28 mm (Outer Diameter)

## WARRANTY AND SUPPORT

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HOFTRONIC products are manufactured with high-quality materials and undergo rigorous testing. For specific warranty details, please refer to the warranty information provided at the point of purchase or contact your retailer. For technical assistance, product inquiries, or support, please visit the official HOFTRONIC website or contact their customer service department.

