

# CIT Relays and Switches for Pool and Spa Equipment

In the pool and spa industry, switches and relays are important components for controlling various equipment and ensuring safe and efficient operation. Here's how they are typically used:

### 1. Relays

Relays are used in pool and spa systems for automating control functions and managing electrical loads. Key applications include:

- **Pump Control:** Relays are commonly used to control the operation of pool and spa pumps. They allow for the automation of pump schedules, such as running filtration cycles, and can be controlled by timers or remote-control systems. This automation helps maintain water quality and energy efficiency.
- Heater Control: For pools and spas with heating systems, relays manage the operation of heaters based on temperature settings. They can be connected to thermostats or control panels, enabling users to set desired water temperatures and ensuring the heater operates only when needed.
- **Lighting Control:** Relays are used to control pool and spa lighting, including underwater lights, landscape lights, and decorative lighting. They can be integrated into automated control systems, allowing for easy control of lighting schedules and scenes.
- Safety and Emergency Systems: Relays play a role in safety systems, such as automatic shut-offs for pumps and heaters in case of a fault or abnormal condition (e.g., water level too low, overheating). This helps prevent damage to equipment and ensures user safety.
- Automation Systems: In more advanced pool and spa setups, relays are part of home
  automation systems or dedicated pool controllers. These systems can automate a wide
  range of functions, including pump speed, lighting, water features, and chemical dosing,
  often controlled remotely via smartphones or other devices.

#### 2. Switches

Switches in the pool and spa industry serve various manual and automated control functions:

- On/Off Controls: Simple on/off switches are used for manually controlling equipment such as pumps, heaters, and lights. These switches are often installed on control panels or near the equipment for easy access.
- Thermostat and Timer Controls: Thermostat switches are used to set and control water temperature, while timer switches control the operation duration of pumps, heaters, and lights. These controls help manage energy usage and maintain desired conditions.
- **Snap-Action Switches:** Snap-action switches are used to monitor and control the pressure in pool and spa systems, especially in heaters and filtration systems. They ensure safe operation by shutting off equipment if the pressure is too high or too low.



Both relays and switches are crucial for the safe, efficient, and convenient operation of pool and spa systems. They provide the means to control and automate various components, enhance safety through reliable shut-off mechanisms, and contribute to energy management.

# CIT Relays used in Pool and Spa Equipment:

- J102 Series
- J103 Series
- J105D Series
- J107 Series
- J114FL Series
- J120D Series
- J123F Series
- J115F1 Series
- J115F1 50Amp Series
- J115F2 Series
- J115F2 50Amp Series
- J115F3 Series
- J115F3 50Amp Series
- J167 Series
- PC673 Series

# CIT Switches used in Pool and Spa Equipment:

- CS1102 Series
- CT1102 Series
- ME Series
- VM3 Series
- VM3S Series