

6ED1052-1FB08-0BA2

# Generic LOGO! 230RCE Logic Module User Manual

Model: 6ED1052-1FB08-0BA2

## 1. INTRODUCTION

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### 1.1 Product Overview

The LOGO! 230RCE is a compact logic module designed for various automation tasks. It features an integrated display, power supply, and versatile I/O options. This module supports 115V/230V AC power input and includes 8 digital inputs (DI) and 4 relay digital outputs (DO). Key functionalities include Ethernet connectivity, an integrated web server, data logging capabilities, and support for user-defined web pages. It is modularly expandable and compatible with standard microSD cards for use with LOGO! Soft Comfort V8.4 or higher. The module also supports cloud connection and MQTT protocols.



Figure 1: Front view of the Generic LOGO! 230RCE Logic Module, showing the display, control buttons, and connection terminals.

## 1.2 What's Included

The package typically includes:

- One (1) LOGO! 230RCE Logic Module (Model: 6ED1052-1FB08-0BA2)

## 2. SAFETY INFORMATION

Read all instructions carefully before installation and operation. Failure to follow these instructions may result in equipment damage, personal injury, or death. This device operates with electrical voltages that can be hazardous. Installation and maintenance should only be performed by qualified personnel.

- **Disconnect Power:** Always disconnect power to the module and associated equipment before performing any installation, wiring, or maintenance.
- **Proper Grounding:** Ensure the module and all connected components are properly grounded according to local and national electrical codes.
- **Environmental Conditions:** Do not expose the module to moisture, extreme temperatures, or corrosive

environments.

- **Wiring:** Use appropriate wire gauges and insulation for the specified voltage and current ratings. Ensure all connections are secure.
- **Intended Use:** Use the module only for its intended purpose as a programmable logic controller.

### 3. SPECIFICATIONS

The following table details the technical specifications of the LOGO! 230RCE Logic Module:

Feature	Specification
Model	6ED1052-1FB08-0BA2
Power Supply / I/O Voltage	115 V / 230 V (AC)
Digital Inputs (DI)	8
Digital Outputs (DO)	4 (Relay)
Memory	400 blocks
Expandability	Modularly expandable
Connectivity	Ethernet, Cloud Connection, MQTT
Integrated Features	Web Server, Data Log, User-defined Web Pages
Memory Card Support	Standard microSD card
Software Compatibility	LOGO! Soft Comfort V8.4 or higher
Mounting Type	DIN Rail Mount
Contact Type	Normally Open (for relay outputs)
Minimum Switching Voltage	115 Volts (AC)
Coil Voltage	230 Volts (AC)
Specification Met	IEC/EN 60947
Item Weight	0.27 Kilograms

### 4. SETUP AND INSTALLATION

#### 4.1 Mounting

The LOGO! 230RCE module is designed for DIN rail mounting. Ensure the DIN rail is securely fastened within an appropriate enclosure, providing adequate ventilation and protection from environmental factors. Snap the module onto the DIN rail until it clicks into place.

#### 4.2 Wiring

All wiring should be performed by a qualified electrician in accordance with local and national electrical codes. Ensure power is disconnected before making any connections.

- **Power Supply:** Connect the 115V/230V AC power supply to the designated terminals on the module. Refer to the terminal markings on the device for correct polarity and connection points.
- **Digital Inputs (DI):** Connect your input devices (e.g., switches, sensors) to the 8 digital input terminals. The module supports 115V/230V AC input signals.
- **Digital Outputs (DO):** Connect your output devices (e.g., contactors, indicator lights) to the 4 relay digital output terminals. These are normally open (NO) contacts. Ensure the load current does not exceed the relay's maximum rating.
- **Ethernet Connection:** Connect a standard Ethernet cable to the RJ45 port for network communication, programming, and web server access.

*Refer to the wiring diagram printed on the side of the module or in the detailed technical documentation for precise terminal assignments.*

## 5. OPERATION

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### 5.1 Initial Power-Up

After completing all wiring, apply power to the module. The integrated display will illuminate, and the module will perform a self-test. Follow any on-screen prompts for initial configuration.

### 5.2 Programming

The LOGO! 230RCE is programmed using LOGO! Soft Comfort software, version 8.4 or higher. Connect the module to your computer via Ethernet. The software allows you to create, simulate, and download logic programs to the module. Older projects are executable on this unit.

- **Software Installation:** Install LOGO! Soft Comfort V8.4 or higher on your PC.
- **Network Configuration:** Configure the IP address of the LOGO! module and your PC to be on the same subnet for communication.
- **Program Download:** Use the software's interface to transfer your logic program to the module.

### 5.3 Integrated Web Server

The module features an integrated web server, allowing remote monitoring and control via a standard web browser. Access the web server by entering the module's IP address into your browser. You can create user-defined web pages for customized interfaces.

### 5.4 Data Logging

The LOGO! 230RCE supports data logging. Insert a standard microSD card into the designated slot to store operational data, trends, and events. Configure data logging parameters through LOGO! Soft Comfort.

### 5.5 Cloud Connection and MQTT

This module supports cloud connectivity and the MQTT protocol, enabling integration into IoT (Internet of Things) applications. Configure these features using LOGO! Soft Comfort to send data to cloud platforms or communicate with other MQTT-enabled devices.

## 6. MAINTENANCE

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Regular maintenance helps ensure the longevity and reliable operation of your LOGO! 230RCE module.

- **Cleaning:** Periodically clean the module's exterior with a soft, dry cloth. Do not use abrasive cleaners or

solvents. Ensure power is off before cleaning.

- **Firmware Updates:** Check the Siemens support website for available firmware updates for your module. Apply updates as recommended to ensure optimal performance and access to new features.
- **Connection Checks:** Periodically inspect all wiring connections for tightness and signs of wear or corrosion.
- **Environmental Check:** Ensure the operating environment remains within the specified temperature and humidity ranges.

## 7. TROUBLESHOOTING

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If you encounter issues with your LOGO! 230RCE module, refer to the following common troubleshooting steps:

- **Module Not Powering On:**
  - Verify the power supply voltage is within the 115V/230V AC range.
  - Check all power connections for proper wiring and secure contact.
  - Ensure the circuit breaker or fuse supplying power is not tripped or blown.
- **Inputs Not Responding:**
  - Check the wiring of the input devices to the module's DI terminals.
  - Verify the input signal voltage is correct for the module.
  - Test the input device (e.g., switch, sensor) independently to ensure it is functioning.
  - Review your LOGO! Soft Comfort program to ensure inputs are correctly configured and monitored.
- **Outputs Not Activating:**
  - Check the wiring of the output devices to the module's DO terminals.
  - Ensure the output device (e.g., contactor, light) is receiving power and is functional.
  - Verify that the load current does not exceed the relay's maximum rating.
  - Review your LOGO! Soft Comfort program to ensure outputs are correctly configured and activated by logic.
- **Communication Issues (Ethernet/Web Server):**
  - Verify the Ethernet cable is securely connected to both the module and the network device.
  - Check the IP address configuration of the module and your PC to ensure they are on the same subnet.
  - Ping the module's IP address from your PC to confirm network connectivity.
  - Ensure no firewall settings are blocking communication.
- **Programming Errors:**
  - Use the simulation feature in LOGO! Soft Comfort to test your program logic before downloading.
  - Check for syntax errors or logical inconsistencies in your program.
  - Ensure the correct module type is selected in the software.

If the problem persists after attempting these steps, contact technical support.

## 8. WARRANTY AND SUPPORT

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### 8.1 Warranty Information

Specific warranty terms for the LOGO! 230RCE module are typically provided by the manufacturer, Siemens, or the authorized reseller at the time of purchase. Please refer to your purchase documentation or contact your supplier for detailed warranty coverage, duration, and conditions. Keep your proof of purchase for warranty claims.

## 8.2 Technical Support

For technical assistance, programming queries, or advanced troubleshooting, please contact the manufacturer's official support channels. The manufacturer of this module is Siemens.

- **Manufacturer:** Siemens
- **Online Resources:** Visit the official Siemens Industry Automation website for product documentation, FAQs, software downloads (LOGO! Soft Comfort), and support forums.
- **Contact:** Refer to the Siemens website for regional contact information for technical support.