

Genie Pro PLC – General FAQ

Hardware:

1. What is a Genie Pro PLC?

A Genie Pro PLC is a Smart Relay PLC designed for small automation applications. It combines the functionality of relays, timers, counters, and basic logic control into a single programmable device.

2. What is the operating voltage?

Common voltage variants include:

- 100–240V AC/DC
- 12V–24 DC
- 24V AC/DC
- 24V DC

(Please refer to the specific model datasheet for details.)

3. Does it have a display?

Yes, models come with display & without display options.

- Built-in 6 line LCD display & Keypad for basic configuration and monitoring

4. What is the maximum I/O capacity?

Max 60 IO's supported with the combination of 24DI + 20DO + 8AI + 8AO

5. What are the available input and output types?

Typical configurations include:

- Digital Inputs (DI)
- Digital Outputs (Relay/Transistor)
- Analog Inputs (0–20mA/4–20mA/0–10V), (RTD– PT100/PT100)
- Analog Outputs (0–20mA/4–20mA/0–10V)

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6. Can the Genie Pro PLC have inbuilt analog IO support?

Yes, 4 Analog inputs (0-10V Signal) are supported in the 12-24VDC/24VDC base models

7. Can the Genie Pro PLC be expanded?

Yes, Max 12 expansion modules are supported for additional digital I/O & Analog I/O

8. What are the analog input specifications?

Typical specifications (model dependent):

- 0-10V/4-20mA/0-20mA input range
- Resolution: 10-12 bit
- Software scaling available

Engineering Tip:

Use shielded cables for analog signals and ensure proper grounding to avoid noise.

9. What are the relay output ratings?

8A resistive load for base model & 5A resistive load for expansion model

10. Does it support high-speed inputs & outputs?

Yes, 4 High speed inputs supported with 5Khz frequency and PWM Output for transistor model up to 2 KHz (4 Outputs)

11. Does it support communication protocols?

Yes, it supports:

- Modbus RTU (Through Detachable RS485 Model)
- Modbus TCP (Through In Built Ethernet Port)

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12. Can it integrate with HMI or SCADA?

Yes, via:

- Modbus RTU (RS485)
- Modbus TCP (Ethernet models)

Works with most standard HMI systems, Verify register mapping before integration.

13. Can I use a Modbus RS485 Interface and a Memory Card Interface at the same time on the Genie Pro PLC?

No, the Memory Card Interface and the Modbus RS485 Interface cannot be used at the same time on the Genie Pro logic controller.

14. Can I use a Modbus RS485 and Ethernet at the same time on the Genie Pro PLC?

Yes, you can use **Modbus RS485 and Ethernet at the same time** on the Genie Pro PLC.

15. What is the purpose of the Memory Card on the Genie Pro PLC?

The **Memory Card** on the Genie Pro PLC is used for the **Program transfer & logging retrieval**

16. What are the environmental specifications?

Typical:

- Operating temperature: -20°C to 55°C
- Storage: -30°C to 70°C
- Humidity: 10–95% non-condensing
- Mounting: Base/DIN rail

17. How is firmware updated?

- Via programming software
- Through communication port (USB/Ethernet depending on model)

Ensure compatibility between firmware and software versions.

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Software:

1. Is the software of Genie Pro PLC free or there is a cost?

- The software for the Genie Pro PLC is **free of cost**. You can download and use it without purchasing any license.

2. Where can you find Help on the use of the programming software of Genie Pro PLC ?

You can get help on using the Genie Pro PLC programming software in several ways:

- The software includes **Online Help**, which can be accessed using the Help icons available on the standard toolbar. These provide detailed information about software features and controller functions.
- You can also find help directly related to the **function blocks** used in your program. Each function block has dedicated Help documentation explaining its operation and parameters.

3. What programming languages are supported?

The Genie Pro PLC supports:

- Ladder Logic (LD)
- Function Block Diagram (FBD)

These programming methods make it user-friendly for electricians and automation engineers.

4. How can I visualize the status of my application if I have the Genie Pro PLC without display?

- The front panel LEDs indicate the current operating status of the PLC, such as power, run, error, and communication status.
- You can monitor the application status in real time by connecting the PLC to your computer and using the debugging mode in the programming software.
- You can also access the PLC's webserver through a computer browser to view the application status, parameters, and diagnostics remotely.

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5. Is simulation available in the software?

Yes, the programming software includes offline simulation for testing logic before downloading to the PLC.

6. How can I retrieve a Datalog in Genie Pro PLC?

- You can access the datalog through the PLC's Webserver by connecting the PLC to your computer via Ethernet and opening the webserver page in a browser. From there, you can view and download the recorded data.
- You can also retrieve the datalog directly from the SD card by removing the SD card from the PLC and accessing it on your computer. The datalog files will be stored in the SD card memory and can be opened for analysis.

7. How can I transfer a program to Genie Pro PLC?

You can transfer your program to the Genie Pro PLC using the following methods:

- **Via Ethernet port:** Connect your computer to the PLC using an Ethernet cable and use the programming software to download the program directly to the PLC.
- **Via SD card interface:** Save the program file to an SD card, insert the SD card into the PLC, and transfer the program from the SD card to the PLC.
- **Via Webserver on the local network:** Access the PLC's webserver through a web browser using its IP address, and upload the program over the local network.

8. Can I exchange data between different logic controllers of Genie Pro PLC?

Yes, it is possible to exchange data between two Genie Pro logic controllers.

You can establish communication between two Genie Pro PLC controllers using **Ethernet and the Modbus TCP protocol**. One controller can be configured as a **Modbus TCP client** and the other as a **Modbus TCP server**, allowing them to exchange data such as variables, inputs, outputs, registers, and internal memory values.

This enables reliable data sharing for applications like system coordination, remote monitoring, and distributed control.

9. Does it support PID control?

Yes, PID control supported for closed loop control application.

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Application:

1. What applications is the Genie Pro PLC suitable for?

It is ideal for:

- Building automation
- Pump control systems
- Lighting control
- HVAC systems
- Small machinery automation
- Compressor control
- Panel automation

2. What industries use Smart Relay PLCs?

- Water & Wastewater
- Packaging
- Building Automation
- Agriculture
- OEM Panel Builders