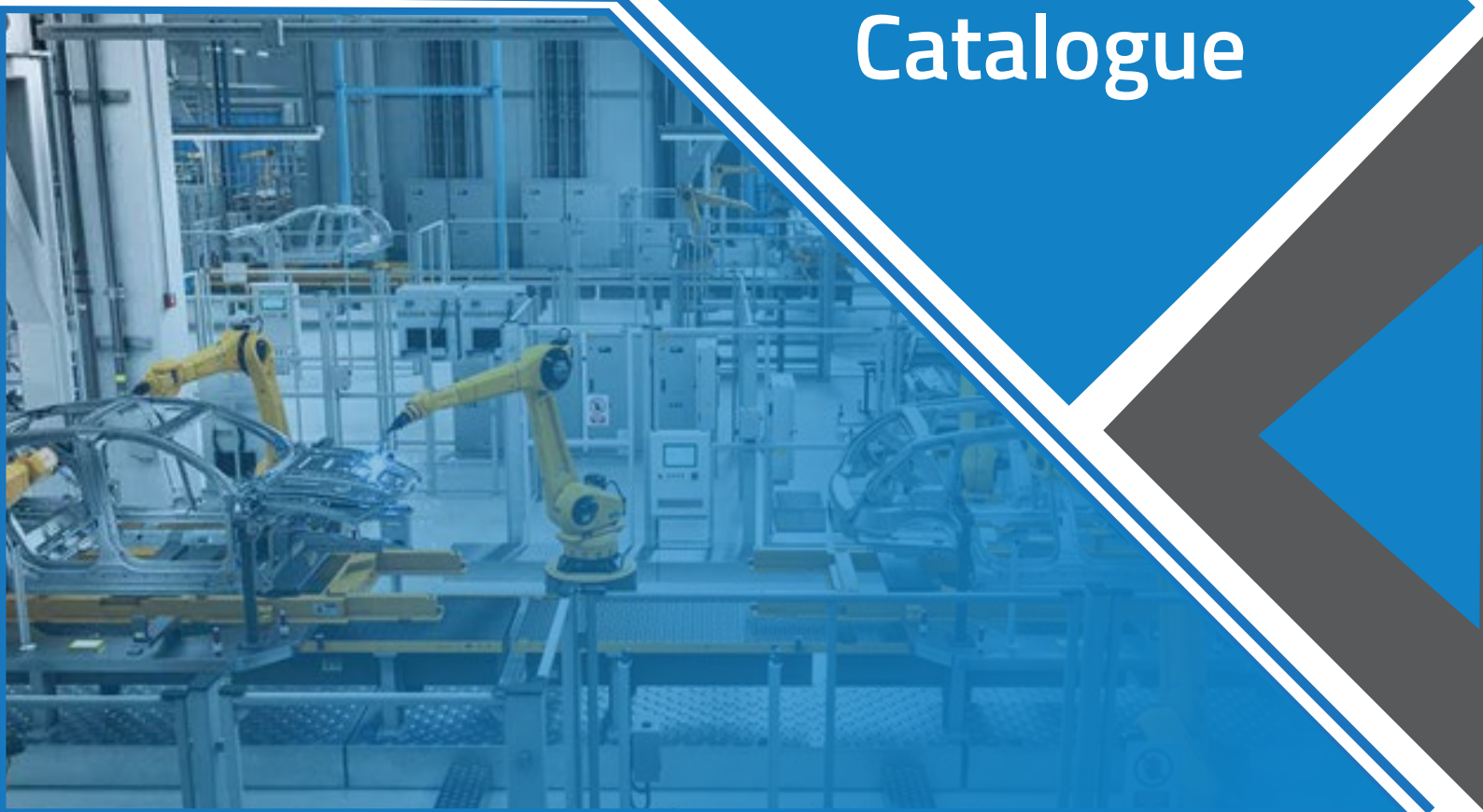




Renu Factory Automation

Product Catalogue



Introduction to the Product Catalogue

Welcome to the Renu Factory Automation Product Catalogue.

This guide is designed for easy navigation, whether you're an industry expert or a first-time buyer. It features Renu's product series such as FP – FlexiPanels® and FL – FlexiLogics®, along with a wide range of offerings including Android Panels, Web Panels, Field I/Os, Protocol Converters, and more. Each category is briefly introduced and followed by a clear, tabular list of part numbers and specifications. Common features across similar models are grouped to avoid repetition.

Understanding Part Numbers

★ Series Identifier

- **FP2** - Basic HMI with Pluggable I/O (FlexiPanels)
- **FP4** - Advanced HMI with I/O Expansion
- **FPEM** - Pluggable I/O Modules for FP2 and FP4 Series HMI
- **FL004** - Eco Series PLC
- **FL055** - Standard Series PLC
- **FLD, FLA** - Expansion I/O Modules for PLC
- **FIO** - Field IO
- **FL001** - Field I/O Modules
- **WP6** - Web panels (HTML5 HMI)
- **AP6** - Android Touch Panels

★ Display Sizes

- **043** - 4.3"
- **070** - 7.0"
- **101** - 10.1"
- **151** - 15.1"

★ Features Code

- **T** - Basic Resistive Touchscreen HMI
- **TN** - Resistive Touchscreen + Ethernet
- **C** - Basic Capacitive Touchscreen HMI
- **CN** - Capacitive Touchscreen + Ethernet
- **E** - Expansion with pluggable I/O (e.g., FP2043T-E)
- **A** - Analog
- **D** - Digital
- **U** - Universal
- **L** - Linear
- **LE** - Local and Expansion

★ Version or IO Code

- **V2** - Indicates second-generation/update on PLCs (e.g., FL004 ... V2)
- **P** - PNP transistor outputs
- **N** - NPN transistor outputs
- **R** - Relay outputs

Human Machine Interfaces (HMI)

Basic FP2 Series HMI

All FP2 Series HMI models feature a rugged TFT color display with analog resistive touch, designed for high reliability in industrial environments. Each unit includes 512MB RAM, 4GB eMMC storage, and a microSD slot. Standard interfaces include USB Device & Host, Ethernet, and RS232/RS485 connectivity, all powered by 24VDC. Additionally, the FP2 Series integrates native ladder-logic control (IEC61131-3), enabling local programmable controller functionality — making it ideal for applications demanding durable, connected HMI with built-in logic capabilities.



FP2043T-V2

- Standard configuration
- No Ethernet



FP2043TN-V2

- Includes Ethernet port



FP2070T-V2

- Dual RS232/RS485 ports
- No Ethernet



FP2070TN-V2

- Ethernet port
- Dual RS232/RS485 ports



FP2043T-E

- 1x RS232/RS485
- 1x Pluggable IO slot
- No Ethernet



FP2043TN-E

- Adds Ethernet
- 1x Pluggable IO slot

Basic FP2 Series HMI with Pluggable IO

All models feature a TFT color display with analog resistive touch, 16MB RAM, 16MB Flash, 8MB application and 2MB logic memory. They include USB Device & Host ports, RS232/RS485 communication, and support up to 3 pluggable I/O modules (digital/analog). Powered by 24VDC and supporting IEC 61131-3 ladder logic, FP2 Series combines visualization, basic control, and modular I/O in one compact unit.



FP2070T-E

- 2x RS232/RS485 ports
- 3x Pluggable IO slots
- No Ethernet



FP2070TN-E

- Adds Ethernet
- 3x Pluggable IO slots

Basic FP2 Series HMI with Built-in & Pluggable IO

4.3"/ 7" TFT color display with analog resistive touch, 16MB RAM, 16MB Flash, 8MB application & 2MB logic memory. Includes 1x Ethernet, USB Device & Host, microSD slot, built-in I/Os: 4 AI (2V/I, 2TC/RTD), 2 AO, and also support for pluggable I/O modules. Supports IEC 61131-3 logic programming, powered by 24VDC.



FP2043TN-LE1208P-A0402U-V3

- Compact 4.3" HMI with 12 DI
- 8 DO (PNP), 1x RS232/RS485
- 1x pluggable IO slot.



FP2070TN-LE2016RP-A0402U

- Larger 7" HMI with 20 DI, 16 DO (12 Relay
- 4 PNP), 2x RS232/RS485
- 3x pluggable IO slots.

Advanced FP4 SERIES HMI

The advanced FP4 series HMIs are built for rugged industrial use, offering a TFT color display with 4-wire analog resistive touch, 512MB RAM, and 4GB eMMC storage. Each unit supports RS-232 and RS-485 serial communication, USB Device and Host ports, and operates reliably on 24VDC power. TN variants additionally feature 10/100 Mbps Ethernet via an RJ-45 port. All models come with built-in PLC functionality, combining control and visualization in a single compact unit. Advanced connectivity includes VNC server access, email alerts, FTP server/client, MQTT support, NTP synchronization, and an integrated web server for remote monitoring—making FP4 ideal for modern, space-efficient automation systems.



FP4043TN

- Single RS232/RS485 port



FP4070TN

- Dual RS232/RS485 ports



FP4101TN

- Dual RS232/RS485 ports



FP4151TN-V2

- Dual RS232/RS485 ports
- Higher screen resolution (1024x768)

Advanced FP4 Series HMI with Pluggable IO

All models feature a TFT color display with analog resistive touch, 512MB RAM, 4GB eMMC, microSD slot, Ethernet, USB Device & Host ports, and support for pluggable I/O expansion. Designed for rich interfaces with on-device logic control, powered by 24VDC.



FP4043TN-E

- 1x RS232/RS485
- 1x Pluggable IO slot
- Compact variant



FP4070TN-E

- 2x RS232/RS485
- 3x Pluggable IO slots



FP4101TN-E

- 2x RS232/RS485
- 5x Pluggable IO slots
- Higher resolution (1024x600)



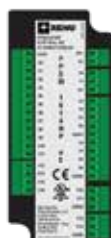
FPEM Pluggable IO Modules

All models offer bi-directional digital inputs, high-speed inputs (200 kHz), high-speed digital outputs, and support a mix of relay/PNP outputs, with selected variants featuring analog inputs (V/I) and analog outputs (AO) — designed for powerful IO expansion in compact automation setups.



FPEM-1616P-V2

- 16 DI, 16 DO (PNP)
- No relay or analog IO



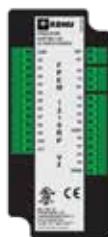
FPEM-1614RP-V2

- 16 DI
- 14 DO: 12 Relay + 2 PNP



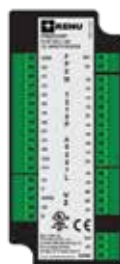
FPEM-1210RP-V2

- 12 DI
- 10 DO: 8 Relay + 2 PNP



FPEM-1210P-A0201L-V2

- 12 DI
- 10 DO (PNP)
- 2 AI (V/I), 1 AO



FPEM-1212RP-A0200L-V2

- 12 DI
- 12 DO: 10 Relay + 2 PNP
- 2 AI (V/I)



FPEM-1212P-A0200L-V2

- 12 DI
- 12 DO (PNP)
- 2 AI (V/I)



FPEM-1210RP-A0201L-V2

- 12 DI
- 10 DO: 8 Relay + 2 PNP
- 2 AI (V/I), 1 AO



FPEM-0808RP-A0401U-V2

- 8 DI
- 8 DO: 6 Relay + 2 PNP
- 4 AI (V/I/TC/RTD), 1 AO
- High-speed outputs at 200 kHz

Programmable Logic Controllers (PLC)

Eco Series PLC

Both models feature 13K steps of PLC program memory, 8 bi-directional digital inputs, 2 pairs each of high-speed inputs (25 kHz) and quadrature inputs (10 kHz), 2 pairs of PWM/PTO high-speed outputs (10 kHz), RS232, RS485, and USB Device ports, support up to 8 expandable IO modules, and operate on a 24VDC power supply — perfect for scalable control in space-constrained applications.



FL004-0806N-V2

- 6 DO (NPN type)



FL004-0806R-V2

- 6 DO (Relay type)

Standard Series PLC

Both models come with 50K steps of PLC program memory, 8 bi-directional digital inputs, 4 pairs each of high-speed inputs and quadrature inputs (200 kHz), 4 pairs of PWM/PTO high-speed outputs (200 kHz), along with Ethernet, RS232, RS485, and USB Device ports. They support up to 16 expandable IO modules and run on a 24VDC power supply — ideal for high-speed automation and motion control tasks.



FL055-0808N-V2

- 8 DO (NPN type)



FL055-0806R-V2

- 6 DO (Relay type)

PLC Expansion IO Modules

These modules are designed to extend digital and analog capabilities for compatible PLC and HMI systems. Offering a range of digital inputs/outputs, analog inputs/outputs, and support for various signal types, they're ideal for customized automation setups.



FLD0800-V2

- 8 DI (Bi-directional)



FLD0008R-V2

- 8 DO (Relay type)



FLD0008N-V2

- 8 DO (NPN)



FLD0808N-V2

- 8 DI (Bi-directional),
- 8 DO (NPN)



FLD0808R-V2

- 8 DI (Bi-directional),
- 8 DO (Relay)



FLA0400-16-V2

- 4 AI (V/I, 16-bit)



FLA0402L-V2

- 4 AI (V/I) 16-bit
- 2 AO (V/I, 12-bit)



FLA0402U-V2

- 4 AI (V/I/TC/RTD, 16-bit)
- 2 AO (V/I, 12-bit)

Field IO Modules

These modules communicate via 2-wire RS485, making them ideal for distributed IO in remote automation setups. Powered at 24VDC, they offer a combination of digital or analog inputs/outputs, with select models including UL certification or support for universal analog signals.



FL001A-0800L-V3

- 8 AI (Voltage/Current)
- RS485 communication



FL001D-0808R-S1

- 8 DI (Bi-directional)
- 8 DO (Relay)
- RS485 communication



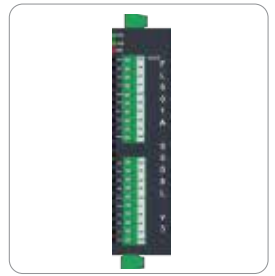
FL001D-0808N-V3

- 8 DI (Bi-directional)
- 8 DO (NPN)
- RS485 communication



FL001D-0808R-V3

- 8 DI (Bi-directional)
- 8 DO (Relay – UL appr)
- RS485 communication



FL001A-0008L-V3

User definable Address, Baud rate and Parity through DIP Switch

Web Panels

WP2 Lite Series Web Panel

All WP2 Lite series models feature a TFT color display with analog resistive touch, 32MB RAM, Ethernet connectivity, a USB Device port, and support for micro browser-based operation — all powered by a reliable 24VDC supply. Designed to function as thin clients, these units are ideal for basic web-based HMI applications where minimal hardware and centralized control are key.



WP2043TN Lite

- Compact and space-efficient option



WP2070TN Lite

- Wider display for improved visibility



WP2101CN Lite

- High brightness display
- Compatible with CODESYS 3.x# and SpiderControl# web servers

WP6 Plus Series Web Panel

All models in this series feature a TFT color display with analog resistive touch, 1 GB RAM, 4GB eMMC storage, Ethernet connectivity, USB Device & Host ports, HTML5-compatible web browser support, and run on a 24VDC power supply — perfect for seamless HMI visualization via web technologies.



WP6043TN Plus

- Most compact model in the series



WP6070TN Plus

- Mid-size variant



WP6101TN Plus

- Larger screen and higher resolution (1024x600)

Android Panels

AP6 Series Open HMI

Experience advanced industrial control with Renu's Android AP6 series — smart panels built for speed, clarity, and connectivity. Powered by a Cortex-A53 quad-core processor and Android 10, they feature a high-brightness (1,000 nits) TFT capacitive touchscreen for clear visibility in any environment. With 1GB RAM, 8GB eMMC storage, and microSD expansion up to 128GB, they handle modern apps with ease. Built-in Wi-Fi, Bluetooth, and an external antenna ensure strong wireless performance, while a CTIA-standard 3.5mm jack enables voice-enabled applications. Designed for harsh conditions (–20°C to 60°C), they support panel, VESA, and wall mounting, and operate on 24VDC — the ideal interface for connected factories and edge automation.



AP6070CN

- Compact and efficient option
- for tight installations



AP6101CN

- Offers larger viewing area
- for enhanced visibility

Gateways and Converters

These compact communication modules enable protocol bridging, signal conversion, and range extension for industrial automation systems. All models operate on a 24 VDC power supply and offer complete isolation between input, output, and power supply—ensuring enhanced signal integrity and device protection. Designed for plug-and-play reliability, they are ideal for seamless integration across serial and fieldbus networks.



GWY-920-LTE-S2

- Serial to 4G/LTE Gateway
- Supports GSM Quad Band:
- 850 / 900 / 1800 / 1900 MHz



CNV-02-B

- RS232 to RS422 / RS485 / CMOS converter
- Includes 3 status LEDs



CNV-03-B

- RS422 / RS485 to RS422 / RS485 repeater
- 2 communication ports
- 3 status LEDs for diagnostics

ENABLING ADVANCED AUTOMATION

Renu's comprehensive range of products and services are instrumental in driving the digital transformation of the food and beverage industry

By providing innovative, reliable, and efficient solutions, Renu helps companies enhance productivity, ensure safety and maintain competitiveness in a rapidly evolving market.



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