FX3U-14MT-6AD2DA PLC Controller 8DI 6DO 6AI 2AO RS485 Modbus RTU RTC

The FX3U-14MT-6AD2DA is a programmable logic controller designed for industrial automation systems requiring digital, analog, and communication control.

Product Overview

This FX3U series PLC features 8 digital inputs and 6 transistor outputs, combined with analog input and output capabilities for signal processing and control. It integrates RS485 communication with Modbus RTU protocol and includes a built-in RTC (real-time clock).

With support for floating-point operations, high-speed inputs, HMI connectivity, and FX instruction compatibility (1N / 2N / 3U), it is suitable for a wide range of automation applications.

- Power-down to maintain can be set free
- DC 24V power supply
- Support for 16-bit encryption
- It supports three kinds of interrupts
- 485 communication Support 4 kinds of communication protocols
- Support 1N, 2N, 3U of the instructions
- Power down to maintain their set range
- Program 8000 step
- Download speed 38400
- Floating-point operations
- HMI
- Scan 3000 steps 1ms
- X0-X5 high-speed input can be accessed by three AB encoders, the default 1K
- 3-way AB input

The FX3U PLC (Programmable Logic Controller) is a compact, high-performance PLC suitable for various industrial automation applications. The FX3U-14MT model has a range of input and output options, including 8 digital inputs, 6 transistor outputs, and 6 analog inputs (3 channels 0-10V, 3 channels 0-20mA). It also has 2 channels of 0-10V analog output. The PLC supports communication via RS485 and MODBUS RTU protocols and has a built-in real-time clock (RTC) for timekeeping.

The 8 digital inputs on the FX3U PLC are used for sensing the status of digital signals such as switches, sensors, and relays. The 6-transistor outputs can be used to control devices such as motors, solenoids, and valves. The 6 analog inputs can be used to measure voltage or current signals from sensors, transducers, or other sources. The 2 analog outputs can be used to generate

voltage signals for controlling devices such as variable frequency drives or to generate current signals for controlling devices such as proportional control valves.

The communication options of the FX3U PLC allow it to connect to other devices in a networked automation system, such as HMIs (Human Machine Interfaces), SCADA (Supervisory Control and Data Acquisition) systems, and other PLCs. The RS485 protocol is a common standard for communication in industrial automation systems, and the MODBUS RTU protocol is widely used for communication between PLCs and other devices.

The built-in real-time clock (RTC) of the FX3U PLC provides accurate timekeeping for applications that require time-based functions, such as scheduling, event logging, or data acquisition. The RTC can be used to trigger events or to generate timestamps for data logging or analysis.

Overall, the FX3U PLC is a versatile and powerful PLC that provides a wide range of input and output options, as well as communication and timekeeping features, making it well-suited for a variety of industrial automation applications.

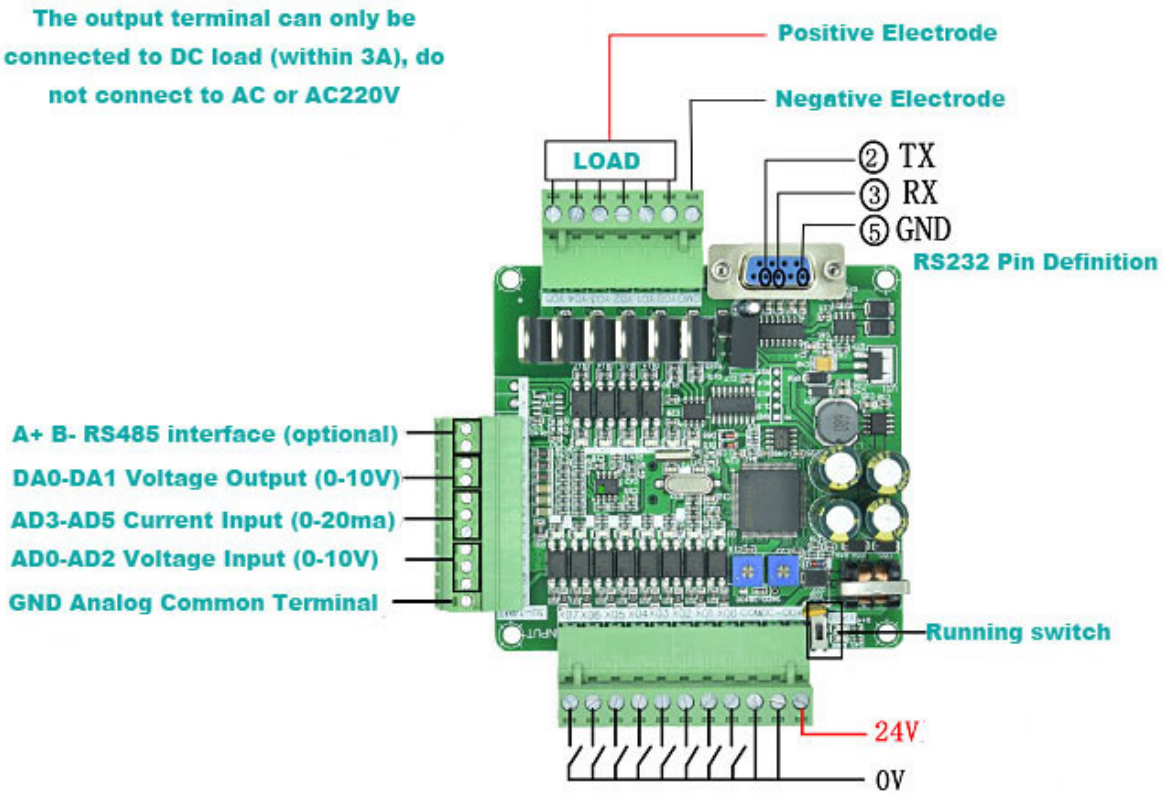
Software: GX-Developer/GX Works2

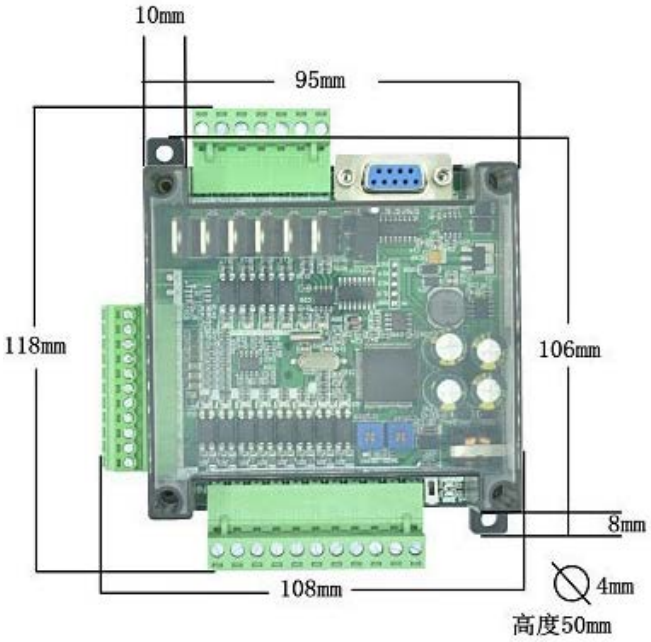
Programming Cable : USB to Serial cable

Specifications:

Input Power	DC24
Number of steps	8000 steps; 2 communication ports: 1 RS232 (DB9 serial port is communication port for the FX3u protocol 38400,7, E, 1 ; 1 RS485 (485 selection) communication protocol can be set D8120).
X input element	X0-X7 DC24 input, Low level, X0-5 is a high-speed count input port (the Default is 1K)
Y output element	Y0-Y1 is a 100K pulse output, Y0-Y1 needs to add a reverse diode with a large load, and Y2-Y5 can directly support a large load (3A is recommended for long-term work)
Analog input	6 analog input, 12-bit precision, 3-channel analog input 0-10V, 3-channel analog input 0-20MA; read analog RD3A instruction
Analog output	2 analog outputs, 12-bit precision, output voltage: 0-10V. output analog voltage with WR3A instruction
Intermediate relay	M0-M3071, power-down save range can be set M0-M1023, the default M500-M1023
Step point	S0-1023, power-down save range can be set S0-S1023, the default S500-S9999
100Ms timer	T0-T199 Accumulated power-down saving T184-T199
10Ms timer	T200-T249 Accumulated power-down saving T246-T249

1Ms timer	T250-T383, where T250-255 is the cumulative type
16-bit counter	C0-C199, power-down save C100-C199
32-bit counter	C200-C219, save the power-down C220-C234
32-bit high-speed counter	C235-255; C235-C240 for the single-phase counter, not multiplier; C241-240 for the single-phase calculator, 2 octave; C2470249 for the dual-phase counter, not multiplier; C250-252 for dual-phase counter, ; C253-C255 for the dual-phase counter, 4 octave
Register D	D0-D7999, power-down save the range can be set D0-7999
Indirect addressing pointer V, Z	V0-7, Z0-7
P The subroutine jump number	P0-63
I interrupt	X0-5 external interrupt, timer interrupt (1MS unit) counter interrupt
Special M components	M8000 run-time normally closed, M8002 power pulse, M8011 is 10Ms pulse, M8012 is 100Ms pulse, M8013 is 1s pulse, M8014 is minute pulse





Usb to Serial programming cable