



Technical Support : 4008-033-022  
Website : [www.flexem.cn](http://www.flexem.cn)  
Online Training : [study.flexem.cn](http://study.flexem.cn)

## Shanghai Flexem Technology Co, Ltd.

Shanghai	9F, Building A, INNO Creative, No.386 Guoan Road, Yangpu District.
Shenzhen	6F, Building 6, Zhongyuntai Technology Park, Shiyan Town, Baoan District.
Wuhan	1501 Haida Innovation Plaza, No.66 Venture Street, Hongshan District.
Beijing	3306, Building 6, No.93 Yuan Jianguo Road (Wanda Plaza), Chaoyang District.
Foshan	911, Block A, Longbow 16 Technology Park, Guda Road, Zhangchu Street, Chancheng District, Foshan
Suzhou	2206, Building A, Suzhou City Life Plaza, No. 251 Pinglui Road, Gusu District, China
Wuxi	403, Feng Shang Cultural and Creative Center, No. 198 Minfeng Road, Liangxi District.
Hangzhou	1F, Unit LEO, Building 5, Singapore Science and Technology Park, No. 6 Road, Xiasha Economic Development Zone.
Wenzhou	B10, 16th Floor, Tianrun Building, Louqiao Street, Ouhai District.



Accelerate Equipment Intelligence

## PLC Product Brochure

Automation and digitalization solution provider

# About

Flexem Technology is a solution provider for automation and IoT. We offer automation and IoT solutions to both OEM customers and end users in various industries, including HVAC, packaging machinery, material handling, electronic equipment, water, and oil & gas. Our comprehensive portfolio includes software such as FM SCADA, IoT gateway, and control products like PLC, HMI, and Servo.

Our mission is to lead the machine intelligence revolution by providing innovative automation and IoT solutions. As a value-added supplier, we offer a total solution for machine builders to optimize their efficiency and reduce the cost of their machines.



350+

Industrial protocols



5000+

User cases



100+

R&D Engineers



80W+

Online terminals



## 2014

2014.12, Launched new configuration software – FStudio v1.0.



## 2012

2012.09, Launched Capacitive HMI F0 series products.



## 2010

2010.11, Shenzhen production facility commissioned.  
 2010.06, Commercially launched its first industrial HMI - FE2000.  
 2010.03, FLEXEM was founded, headquartered in Shanghai.



## 2018

2018.01, IoT solutions released, including FlexHub and FlexCloud.



## 2016

2016.12, FlexManager software released.  
 2016.11, Be awarded as "Shanghai High-tech Enterprise".



## 2015

2015.03, Commercially launched the first IoT gateway in China - FBox.



## 2023

2023.06, Launched Servo series products.  
 2023.01, FLEXEMATIC was founded in the United States.



## 2021

2021.03, 2nd R&D center in Wuhan commissioned.

## 2019

2019.01, Launched FE6000 HMI with embedded IoT module.



## Advanced Automation And Information Fusion Solution

Machine Automation & IoT Solution

Digital Plant Solution

Equipment Remote Operation & Maintenance Solution

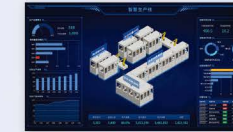
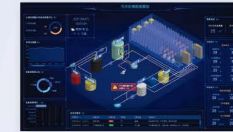
Management Level

### Industrial digitization platform - FlexFusion



- B/S architecture, web browsing
- Factory informatization
- Support for secondary development
- Cloud data processing and computing

### Equipment IoT platform - FlexCloud



- Configuration monitoring
- Operations Dashboard
- Map monitoring
- Mobile App
- Data report

Monitoring Level

### Industrial SCADA software - FlexSCADA

- Data visualization and 3D presentation
- Support LAN and cloud installation and deployment
- Powerful data reporting capabilities
- Web browsing



4G, 5G, Ethernet, WiFi, NBIoT



Access Level

### FBox-5G



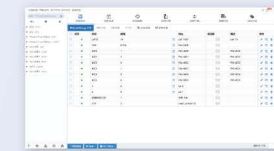
- 5G Fast Network Experience
- Multiple data acquisition methods
- Real-time monitoring, remote download

### FBox-4G



- Remote program download
- Multiple data acquisition methods
- Real-time data monitoring

### Flexem Equipment Data Acquisition Gateway - FBox



- PLC remote download
- Data Configuration
- Firmware upgrade
- Alarm Configuration

- Historical data query
- SIM card management
- fault diagnosis
- Batch management

### Flexem Terminal Management Platform - FlexManager

Control Level



### FL5 series intelligent PLC

- IIEC61131-3 standard architecture
- Graphical configuration interface
- Ladder diagram, structured text programming language
- Support for Flexem IoT platform
- Motion control function
- FSUnified Integrated Engineering Environment



### FC5 series PLC

- IEC61131-3 standard architecture
- Graphical configuration interface
- Ladder diagram, structured text programming language
- FSUnified Integrated Engineering Environment



### Remote IO

- Blade type remote IO module
- High speed bus refresh
- Anti reverse connection protection
- Built-in gateway function
- Support multiple network protocols

### Flexem controller



### FPad series intelligent HMI

- Powerful data processing capabilities
- Support for multi-screen interaction
- Support for web access
- Easy docking with third-party systems such as MES



### 7000 series Intelligent HMI

- Built-in IoT
- eSIM solution
- 4 core, 10GHz CPU



### 6000 series IoT HMI

- High definition, high brightness, full view
- Flink IoT module
- Built-in IoT

### Flexem HMI

Drive Level

### Universal Servo



- Adopting the most advanced underlying algorithm in Europe, the speed loop bandwidth reach to 3.2KHz
- Advanced adaptive tuning, adaptive filters, inertia identification and other advanced functions
- Support multiple control modes such as Analog, Pulse, EtherCat, etc
- The power range from 33W to7500W

### Direct Drive Servo



- Adopting advanced algorithm control platform with graphical debugging wizard
- Supports multiple encoder protocols such as ABZ encoder, Hall encoder, BISS-C, Endat, Tamagawa, Nikon, etc
- Supports advanced functions such as flying photo, inertia identification, friction compensation, speed observer, model tracking, etc
- Support multiple phase finding methods such as Hall, position locking, and micro motion
- Support for power failure braking and precision compensation

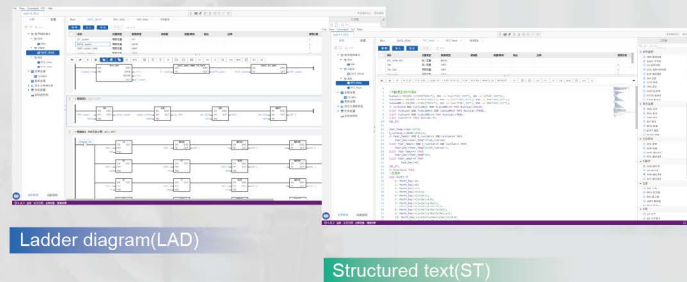
# Flexem Intelligent PLC

Flexem F5 series PLC can be connected to the cloud server through IoT module which is installed on the left side of CPU, to realize remote operation and maintenance, data monitoring function, etc. Provide a more professional and efficient solution for customers.



## Supports ladder diagram(LAD) and structure text(ST) language

Flexem F5 series intelligent PLC project development is based on FStudio Unified software which supports LAD and ST programming language, easy to solve problems in various scenarios.

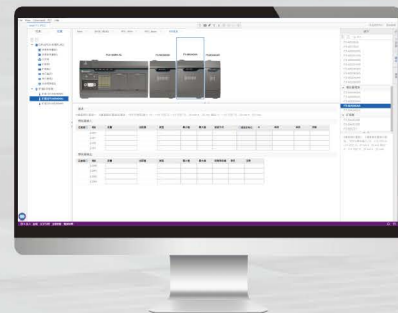


Ladder diagram(LAD)

Structured text(ST)

## Graphical interface, more intuitive

FSU software provides graphical interface with more intuitive hardware configuration display, and facilitate to project settings for more efficient project development.



## PLC project download without external power supply

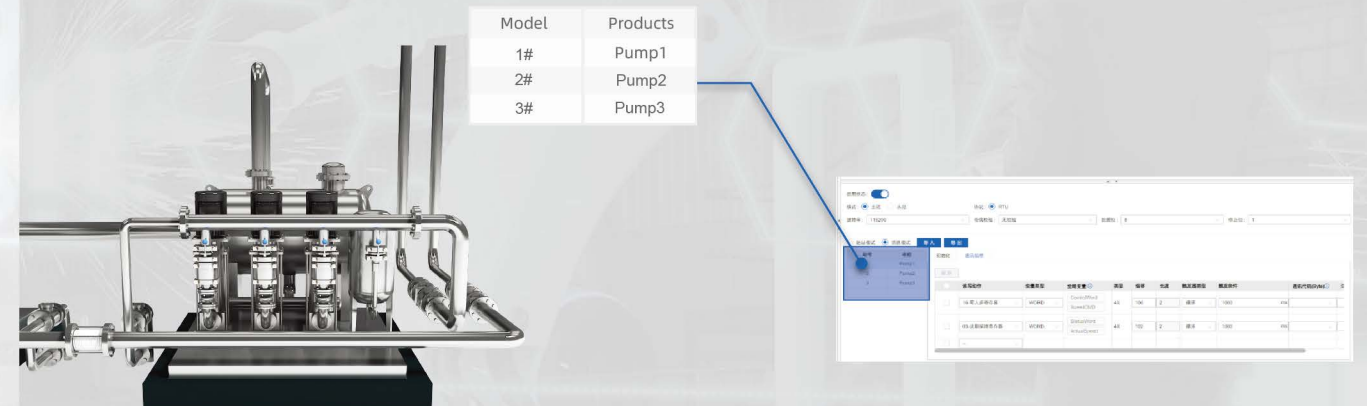
If there is no external power supply for Flexem F5 series intelligent PLC, it also can download project with Type-C data cable used to connect the F5 PLC and the computer.

- Online debugging
- Remote Update
- Download without external power
- Easy to use



## Support Modbus-RTU/TCP protocol

Flexem F5 series intelligent PLC supports Modbus-RTU/TCP protocol, easy to configure communication settings without any code. For same protocol but multiple slaves, it supports to copy one slave configuration to others for rapid project development.



## Abundant models and various extension modules

Flexem F5 series intelligent PLC has different power input methods, output types, abundant I/O points, and dozens of digital and analog expansion modules for customers to select. In addition, hidden expansion board provides more economic and convenient solution.



## F5 Series Intelligent PLC

FC5 — General controller

FC5M — Motion controller



F5 Series Intelligent PLC

Series		FC5			FC5M		
Model		FC5-20M*	FC5-30M*	FC5-40M*	FC5M-20M*	FC5M-30M*	FC5M-40M*
Built in I/O		20	30	40	20	30	40
Input Points		12	18	24	12	18	24
Output Points		8	12	16	8	12	16
High Speed Pulse Input		None			7 Points 100KHz		
High Speed Pulse Output		None			6 points 100KHz (only transistor output)		
Expansion Ability	IO Expansion Modules	It depends on CPU power supply (MAX 31)					
	Expansion Board	1	1	2	1	1	2
	Modbus Communication	2 channels (1*DB9,1*terminal block)					
Communication Ports	USB Type-c	Program download and upload; online monitoring; firmware upgrading					
	RS232/RS485	Serial port 1:RS485; Serial port 2: RS485/232; Baud rate: 4800-115200bps					
	Ethernet Port	1*RJ45, 10/100M, self adaptive					
RTC		Built in					

## Model Introductions

F\*5\* - □ M\* - □

1
2
3
4
5

### 1 Series

FC5: Basic logic controller

FC5M: Basic motion controller

### 2 Motion Controller

M: Motion Controller function

### 3 I/O Capacity

20: 20 I/O points (12 input, 8 output )

30: 30 I/O points (18 input, 12output )

40: 40 I/O points (24 input, 16output )

### 4 Output Type

R: Relay output

N: NPN transistor output

P: PNP transistor output

### 5 Power Supply

AC: 220V AC power supply

DC: 24V DC power supply



## Products Layout



- ① Ethernet Port
- ② Input Terminals
- ③ Left Expansion Modules
- ④ USB Test Port
- ⑤ Run&Stop Switch
- ⑥ Expansion Board
- ⑦ Right Expansion Module
- ⑧ Serial Port1
- ⑨ Output Terminals
- ⑩ Serial Port 2



- ② Output Terminals
- Feature:
- 24V DC input
- Bipolar output, NPN/PNP compatible
- Built in 7\*high speed input points(for FC5M)
- Removable terminals block



- ③ Left Expansion Modules
- Feature:
- IoT Modules
- 4G To connect cloud server
- Same Platform
- Buckle Connection
- Flexem Cloud



- ④ Debugging USB Port
- Feature:
- Type-c Interface
- Program Upload & Download
- Monitoring and debugging
- Firmware Upgrading



- ① Ethernet Port
- Service:
- Modbus TCP Server
- Modbus TCP Client
- Web Server (developing)

- Protocols Supported:
- IP (Internet Protocol)
  - UDP (User Datagram Protocol)
  - TCP (Transmission Control Protocol)
  - Modbus-TCP
  - EtherNet-IP (developing)

## Communication Introductions

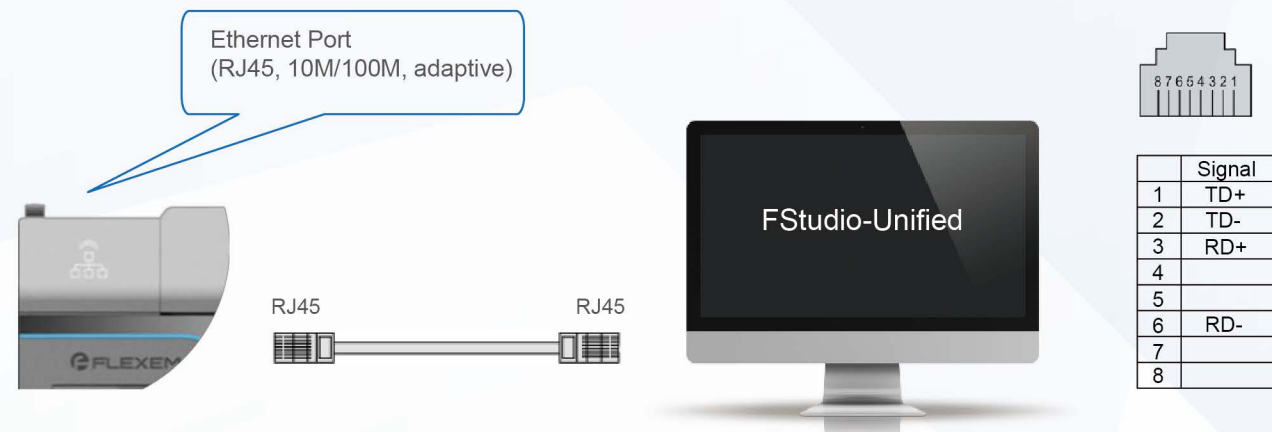
### Type-c



### Serial Port SL1 (DB9) /Serial Port SL2 (Terminal Block)

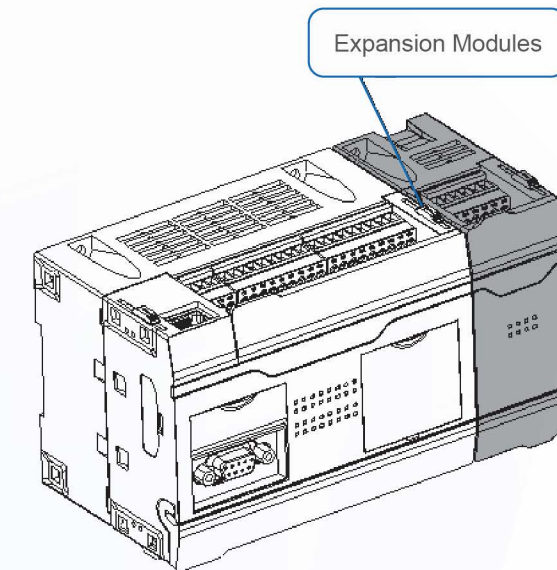


### Ethernet Port



## Expansion Module

- CPU Digital /Analog expansion modules
- Modular combination and flexible configuration
- Removable terminals
- Rail/screws installation, easy and convenient



The quantity of modules that can be loaded by the CPU depends on the power supply capacity of the CPU (MAX 31).



## Digital Expansion Module

Model F5-MD*	0800	0404N	0404R	0008N	0008R	1600	0016N	0016R	0808N	0808R
24VDC Input	8	4	4	—	—	16	—	—	8	8
Output	Relay	—	4	—	8	—	—	16	—	8
	Transistor	—	4	—	8	—	—	16	—	8
Signal Indicator	Available									
Power Supply	24VDC-15%/+20%, 3.2W max. The main unit is provided internally without external input.									
Wiring Structure	Removable terminal block									
Working Temperature	-10~60°C									
Storage Temperature	-20~70°C									
Environment Humidity	5~95%RH (Non-condensing)									
Installation	Directly installed on DIN46277 (35mm width) guide rail or fixed with screws									
Dimension	Dimension A: 40mmx90mmx83mm					Dimension B: 66mmx90mmx83mm				



## Analog Expansion Module

Model F5-MA*	0400A	0004A	0800A	0404A/0402A
Input	4	—	8	4
Output	—	4	—	4/2
Resolution	16-bit			
Input/Output Signal	Input: Voltage-10V~10V, Current 0~20mA output: Voltage 0V~10V, Current 0~20mA			
Full Range Value	Customized (-30000~30000)			
Conversion Precision (Full Scale Range)	±0.2%	±0.5%	±0.2%	Input± 0.2% Output± 0.5%
Maximum Input Signal Allowed	Voltage: 30V Current: 30mA	—	Voltage: 30V Current: 30mA	Voltage: 30V Current: 30mA
Impedance Input	Voltage>200Kohms Current<250ohms+ 5%	—	Voltage>200Kohms Current<250ohms+5%	Voltage>200Kohms Current<250ohms+ 5%
Output load Range Allowed	—	Voltage>2k ohms Current<500ohms	—	Voltage>2k ohms Current<500ohms
Power Supply	24VDC-15%/+20%, 3.2W max. The main unit is provided internally without external input.			
Wiring Structure	Removable terminal block			
Working Temperature	-10~60°C			
Storage Temperature	-20~70°C			
Environment Humidity	5%~95%RH ( Non-condensing)			
Installation	Directly installed on DIN46277 (35mm width) guide rail or fixed with screws			
Dimension	Dimension A: 40mmx90mmx83mm		Dimension B: 66mmx90mmx83mm	





## Temperature Expansion Modules

Model F5-*	MS0400P	MS0800P*	MS0400K	MS0800K*
Descriptions	Resister temperature sensor input module		Thermocouple temperature sensor input module	
Input	4	8	4	8
Rated Power	<=30mA (full load)	<=60mA (full load)	<=40mA (full load)	<=80mA (full load)
Input Sensor Type	PT100, PT1000, NI100, NI1000, Cu50, Cu100		K, J, R, S, B, E, T, N, C type thermocouple; NTC/PTC	
Resolution	0.1°C		Temperature: 0.1°C; resister; 15 bits+1*sign bit	
Measuring Precision (Under 25°C Environment)	±0.5% or ±1°C, take the larger value		Thermocouple: (±0.3% or ±1°C of display value, take the larger value) NTC/PTC: (±0.1% or ±1°C of display value, take the larger value)	
Measuring Temp (Temperature Range: -20°C~60°)	PT100, PT100, NI100, NI1000: PV±1% or 1°C, take the larger value volume; CU50, CU100: PV±1% or ±1.5°C, take the larger value		Thermocouple input (R, S, B, C) : (PV ±1% or ±2.5°C, take the larger value) Other thermocouple input: (PV±1% or ±1°C, take the larger value)	
Impedance Input	>= 1 MOhm			
Cycle	<=100ms/channel			
Minimum Value Input	0.1°C			
Input Filtering	0~10S (take 0.01s as one unit)			
Measuring Range	PT100 -200...850 °C PT1000 -200...600 °C  NI100 -60...180 °C NI 1000 -60...180 °C  Cu50 -50...150°C Cu100 -50...150°C		K -200...1300 °C, J -200...1000 °C R 0...1760 °C, S 0...1760 °C B 0...1820 °C, E -200...800 °C T -200...400 °C, N -200...1300 °C C 0...2315 °C  NTC: Measuring range:100 Ω...200 kΩ Temperature Calculation Range: -90...150 °C	
Power Supply	24DC-15%+20%, 3.2w max. The main unit is provided internally without external input.			
Wiring Structure	Removable terminal block			
Working Temperature	-10~60°C			
Storage Temperature	-20~70°C			
Environmet Humidity	5~95%RH (Non-condensing)			
Installation	Directly installed on DIN46277 (35mm width) guide rail or fixed with screws			
Dimension	Dimension A 40mmx90mmx83mm	Dimension B 66mmx90mmx83mm	Size A 40mmx90mmx83mm	Dimension B 66mmx90mmx83mm

\* In development



## IoT Expansion Module

F5-4G	Description
Port	1
Network methods	(mobile/unicom/telecom) 4G
VPN Transmission	Available
Tranmission	Available
API Interface	Available
MQTT	Available
Edge Computing	Available
Real-time Data Monitoring	200 points
Alarm Data	60 points
Historical Data	20 points
Histotical Data Storage	60 days
Rated Power	<5W
Rated Voltage	24DC-15%+20%, 3.2w max. The main unit is provided internally without external input
Power Protection	Protect from lightening and surging
Power Off Allowed	<3mS
Certification	CE, RoHS
Working Temperature	-10~60°C
Storage Temperature	-20~70°C
Environment Humidity	10-90%RH (Non-condensing)
Cooling Mode	Natural Cooling
Dimension	25mm×90mm×83mm



## Analog Expansion Board

Model	F5-BA0200B	F5-BA0002B
Input	2	—
Output	—	2
Resolution	12-bit	
Input/Output Signal Range	Voltage: 0-10V; Current: 0-20mA/4-20mA	
Full Range	Customized (0~4096)	
Conversion Precision (full range)	±1%	±1%
Maximum Signal Input	Voltage:30V Current 30mA	—
Impedance Input	Voltage>100K ohms; Current < 250ohms+5%	—
Output Load Range	—	Voltage>2k ohms Current<500ohms
Power Supply	5VDC-15%/+20%, 3.2W max. The main unit is provided internally without external input	
Wiring Structure	Non-removable terminal block	
Working Temperature	-10~60°C	
Storage Temperature	-20~70°C	
Environment Humidity	5%~95%RH (Non-condensing)	
Installation	CPU Front expansion board slot	
Dimension	38mmx40mmx18mm	

F5-BA0200B

F5-BA0002B



## Serial Board

Model	F5-BSC01
Description	Serial ports expansion board
Channel	1
Isolation	Non isolation
Ports	RS485/RS232
Protocol	RS485/232, baud rate: 4800-115200bps
Power Supply	5VDC -15%/+20%, 3.2W max. The main unit is provided internally without external input
Wiring Structure	Non-removable terminal block
Working Temperature	-10 ~ 60°C
Storage Temperature	-20 ~ 70°C
Environment Humidity	5% ~ 95%RH (Non-condensing)
Installation	CPU Front expansion board slot
Dimension	38mmx40mmx18mm

F5-BA0002B



Wiring—F5-MD\*

10~117	Input
Q0~07	Output
CO~C3	Common Terminals
—	Spare Terminals

Upper Side		1	2	3	4	5	6	7	8	9	10	11	12
Below Side		1	2	3	4	5	6	7	8	9	10	11	12
F5-MD1600	Upper Side	C0	I0	I1	I2	I3	—	C1	I4	I5	I6	I7	—
	Below Side	C2	I8	I9	I10	I11	—	C3	I12	I13	I14	I15	—

F5-MD0016R	Upper Side	C0	Q0	Q1	Q2	Q3	—	C1	Q4	Q5	Q6	Q7	—
	Below Side	C2	Q8	Q9	Q10	Q11	—	C3	Q12	Q13	Q14	Q15	—

F5-MD0016N	Upper Side	0V	Q0	Q1	Q2	Q3	—	0V	Q4	Q5	Q6	Q7	—
	Below Side	0V	Q8	Q9	Q10	Q11	—	0V	Q12	Q13	Q14	Q15	—

F5-MD0800	Upper Side	C0	I0	I1	I2	I3	—	F5-MD0404N	Upper Side	C0	I0	I1	I2	I3	—
	Below Side	C1	I4	I5	I6	I7	—		Below Side	0V	Q0	Q1	Q2	Q3	—

F5-MD0808R	Upper Side	C0	I0	I1	I2	I3	—	C1	I4	I5	I6	I7	—
	Below Side	C2	Q0	Q1	Q2	Q3	—	C3	Q4	Q5	Q6	Q7	—

F5-MD0404R	Upper Side	C0	I0	I1	I2	I3	—
	Below Side	C1	Q0	Q1	Q2	Q3	—

F5-MD0808N	Upper Side	C0	I0	I1	I2	I3	—	C1	I4	I5	I6	I7	—
	Below Side	0V	Q0	Q1	Q2	Q3	—	0V	Q4	Q5	Q6	Q7	—

F5-MD0808P	Upper Side	C0	I0	I1	I2	I3	—	C1	I4	I5	I6	I7	—
	Below Side	—	Q0	Q1	Q2	Q3	24V	—	Q4	Q5	Q6	Q7	24V

F5-MD0008N	Upper Side	0V	Q0	Q1	Q2	Q3	—	F5-MD0008R	Upper Side	C0	Q0	Q1	Q2	Q3	—
	Below Side	0V	Q4	Q5	Q6	Q7	—		Below Side	C1	Q4	Q5	Q6	Q7	—

Wiring—F5-MA\*

VI*	Voltage Input Ports
AI*	Current Input Ports
VQ*	Voltage Output Terminals
AQ*	Current Output Terminals
C*	Common Terminals

Upper Side		1	2	3	4	5	6	7	8	9	10	11	12
Below Side		1	2	3	4	5	6	7	8	9	10	11	12
F5-MA0404	Upper Side	VI0	C0	AI0	VI1	C1	AI1	VI2	C2	AI2	VI3	C3	AI3
	Below Side	VQ0	C4	AQ0	VQ1	C5	AQ1	VQ2	C6	AQ2	VQ3	C7	AQ3

F5-MA0800	Upper Side	VI0	CO	AI0	VI1	C1	AI1	VI2	C2	AI2	VI3	C3	AI3
	Below Side	VI4	C4	AI4	VI5	C5	AI5	VI6	C6	AI6	VI7	C7	AI7

F5-MA0402	Upper Side	VI0	C0	AI0	VI1	C1	AI1	VI2	C2	AI2	VI3	C3	AI3
	Below Side	VQ0	C4	AQ0	VQ1	C5	AQ1	—	—	—	—	—	—

F5-MA0400	Upper Side	VI0	C0	AI0	VI1	C1	AI1	F5-MA0004	Upper Side	VQ0	C0	AQ0	VQ1	C1	AQ1
	Below Side	VI2	C2	AI2	VI3	C3	AI3		Below Side	VQ2	C2	AQ2	VQ3	C3	AQ3

Wiring—F5-MS\*

Upper Side		1	2	3	4	5	6	7	8	9	10	11	12
Below Side		1	2	3	4	5	6	7	8	9	10	11	12

Thermocouple Input Module

F5-MS0400K	Upper Side	I0+	I0-	FG	I1+	I1-	FG
	Below Side	I2+	I2-	FG	I3+	I3-	FG

Thermocouple Input Module

F5-MS0800K	Upper Side	I0+	I0-	FG	I1+	I1-	FG	I2+	I2-	FG	I3+	I3-	FG
	Below Side	I4+	I4-	FG	I5+	I5-	FG	I6+	I6-	FG	I7+	I7-	FG

Platinum Import Module

F5-MS0400P	Upper Side	A0	B0	B'0	A1	B1	B'1
	Below Side	A2	B2	B'2	A3	B3	B'3

Platinum Import Module

F5-MS0800P	Upper Side	A0	B0	B'0	A1	B1	B'1	A2	B2	B'2	A3	B3	B'3
	Below Side	A4	B4	B'4	A5	B5	B'5	A6	B6	B'6	A7	B7	B'7

Wiring—F5-BA\*

F5-BA0200B	VIO	C0	AI0	VI1	C1	AI1
F5-BA0002B	VQ0	C0	AQ0	VQ1	C1	AQ1

VI*	Voltage Input Terminals
AI*	Current Input Terminals
VQ*	Voltage Output Terminals
AQ*	Current Output Terminals
C*	Common Terminals

Wiring—F5-BSC01

F5-BSC01	A	B	GND	GND	TXD	RXD
----------	---	---	-----	-----	-----	-----

# FStudio-Unified Programming Software

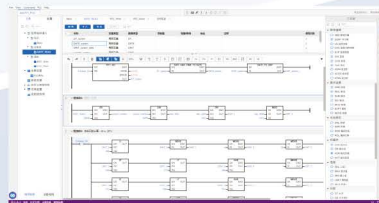


FStudio-Unified Software ICON

## Products

FSU can provide setting and programming for PLC and provides developing, edition and monitoring logic

- This software strictly complies with the international standard IEC-61131-3
- Provides support for two programming languages, namely ladder diagram (LAD) and structured language (ST).
- FStudio-Unified software can shorten your project cycling period
- The interface design of Fstudio Unified software is novel and easy to use:
  - Friendly interface, quick to use
  - Provide multiple functions to improve work efficiency
  - Shorten equipment development cycle and speed up equipment launch



Fstudio Unified software interface

## System Requirement

To install Fstudio Unified, the computer must have the following conditions:

- Windows 8/7/XP SP1 and above, to 32 -bit or 64-bit
- 1GB memory or above, 1.3GB hard disk storage or space above
- Intel Core 2 dual core processor or higher
- The recommended minimum display resolution is 1280 x 800 pixels

## Programming Language

- Structured Text (ST) Language
- Ladder Diagram(LD) Language

## Communication Cables Connection

By using Type-c data cable, you can connect programmable logic controller and computer

## Ethernet Connection

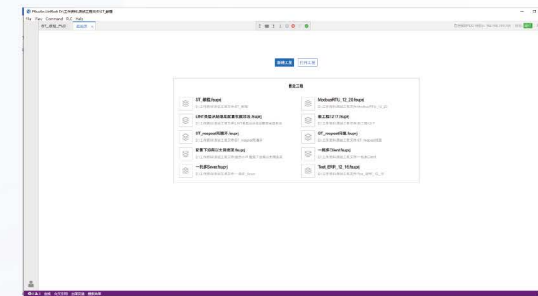
You can connect programmable logic controller and computer through controller and Ethernet communication port

## FStudio-Unified Software provides intuitive visual navigation

FStudio Unified software provides intuitive visual navigation. The display interface of the software is optimized, and each stage of the equipment development cycle (configuration, programming, etc.) can be selected.

Each interface is divided into four areas:

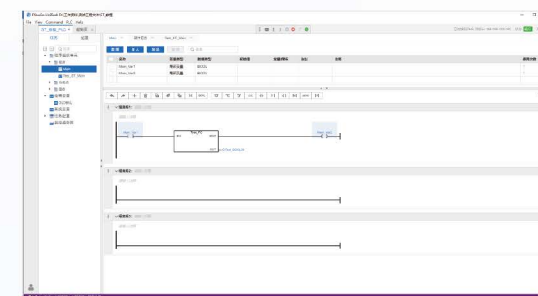
- Left directory tree navigation area
- Upper variable declaration area/visual configuration
- Right instruction area/hardware module area
- Lower menu bar (variable table, cross reference, compilation results, search results, etc.)



## Starting Page

The Start Page window is used to:

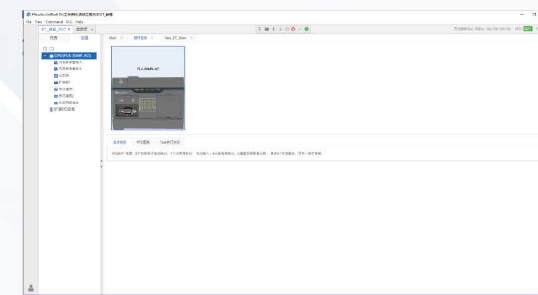
- Create a new project or open an existing project
- Connect to the programmable controller and open the application stored in the controller
- Connect to the programmable controller and change the system settings of the controller;
- Log in to Flexem Cloud account;



## Task

In this interface, you can edit/create POU's, such as:

- Create a new program
- Create a new function block
- Create a new function
- Modify task Configuration
- Import/Export POU
- Encryption/decryption POU



## Configure

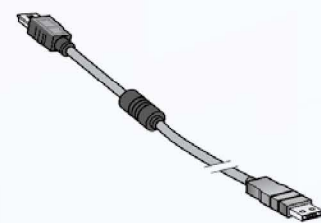
Configuration can be used to:

Use the "Hardware" library for hardware configuration according to your actual application

- Programmable controller ( FC5/FC5M)
- I/O expansion module
- Expansion board

You can choose and set hardware according to application:

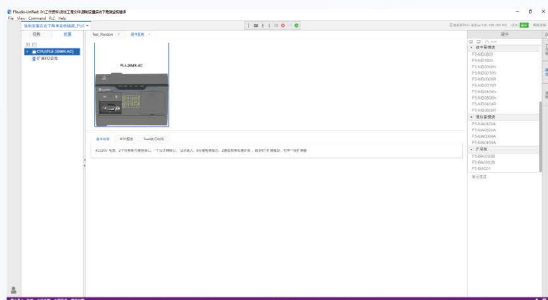
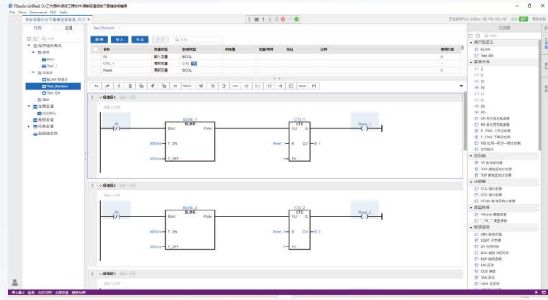
- Digital and analog I/O
- High speed counter (HSC)
- Pulse generator output
- Pulse Width Modulation (PWM)
- Pulse train output (PTO)
- Communication Port ((Ethernet, serial Port)



Universal Type-C communication cable

## Programming

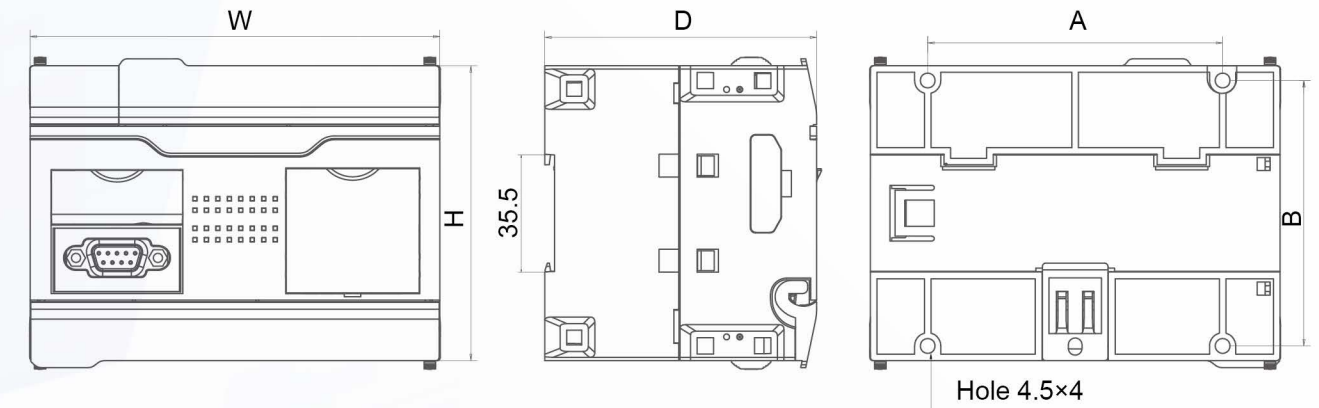
- The organization form of the program is POU (Program Structure Unit)  
POU is composed of program segments, simplifying the reading and navigation within the program
- POU includes various application tasks: periodic tasks and interrupt tasks  
You can program in the following languages:
  - Structured Text (ST) Language
  - Ladder Diagram (LD) Language
- The ladder editor provides an intuitive and efficient programming mode:
  - Drag and drop operation
  - Provide instruction favorites according to the usage habits of different users
  - The provided step template can help quickly write advanced function programs
  - Quick connect the variables created with the elements in the ladder
  - Variable Table import/export
  - Quick Call Help Manual
  - Auto save, save changes in real time
  - Automatic analysis and compilation
- Support real-time monitoring mode and mandatory variables
- More intuitive and vivid interface
- Search and replace functions



## Upload/download/transfer

- Tasks Performed
- Network connection:
  - Automatically detect the controller connected to the computer according to the type of network connection port (USB, Ethernet)
  - Application transfer between PC and controller
- Controller firmware upgrade
- Backup and restore controller data:
  - Application program
  - Firmware information
  - Storage area
- Controller information
- Real time clock management

## Dimension



Model	Total IO points	Guide rail size	Installation dimension of screw hole		Dimension W*H*D
			A	B	
F*5-20M△-◎	20	35mm	90mm	81mm	125mm*90mm*83mm
F*5-30M△-◎	30	35mm	90mm	81mm	125mm*90mm*83mm
F*5-40M△-◎	40	35mm	137mm	81mm	172mm*90mm*83mm

### Notes :

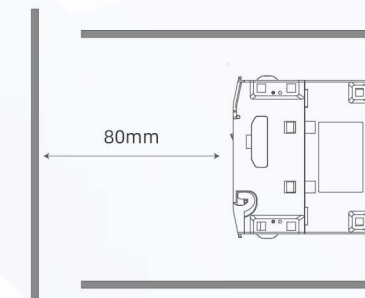
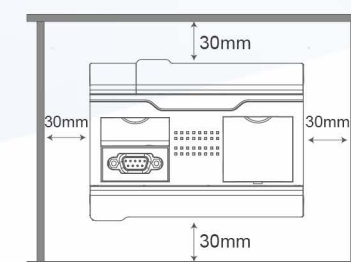
1. Reference with △ mark, △: R—Relay output, △N or P —Transistor output
2. Reference with ◎ mark, ◎: AC—AC220V Power, ◎: DC—DC24V Power

## Install Dimension

Install Hole 20/30 I/O CPU:



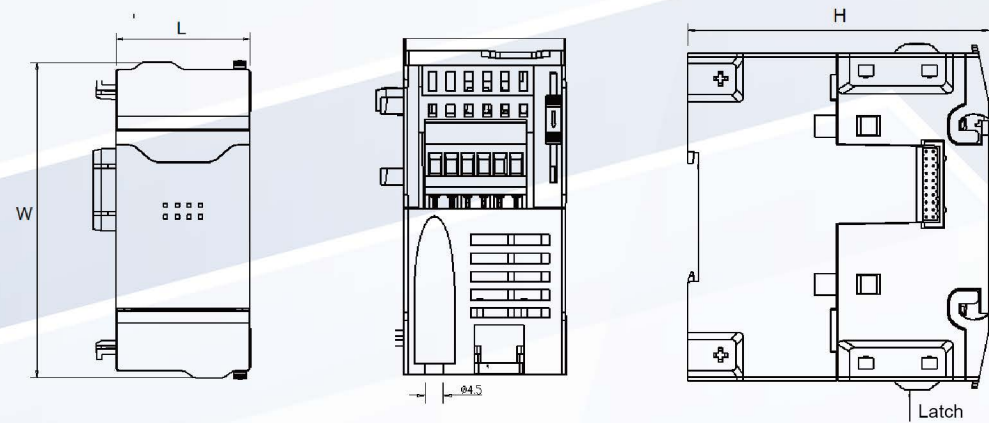
Install Hole 40I/O CPU:



## Dimension

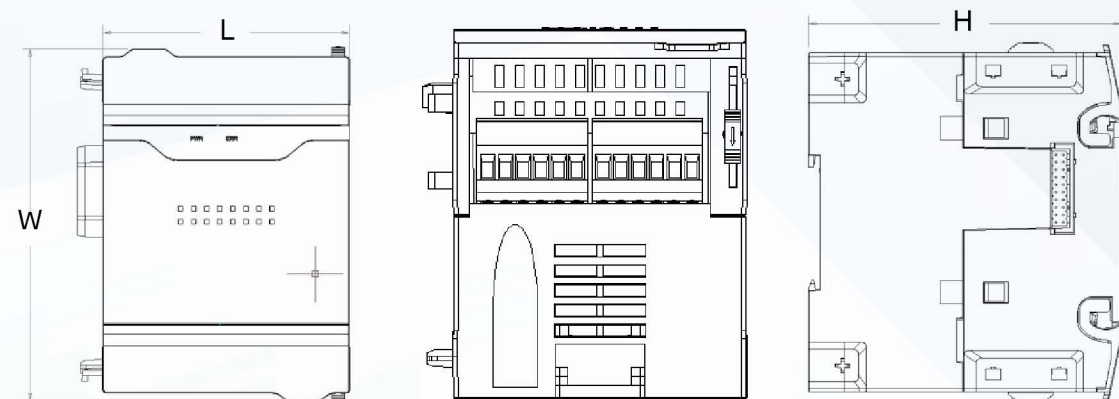
### Dimension A

L(mm)	W(mm)	H(mm)	Hole (mm)
40	94.2	83	4.5



### Dimension B

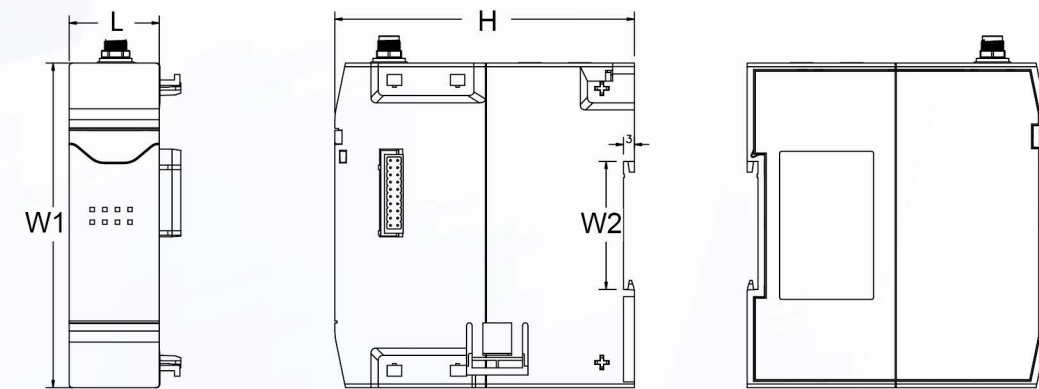
L(mm)	W(mm)	H(mm)	Hole (mm)
66	94.2	83	4.5



## Dimension

### F5-4G

L(mm)	W1(mm)	H(mm)	W2(mm)
25	90	83	35.5



### F5-B\*

L(mm)	W(mm)	H1(mm)	H2(mm)
40	38	14	18

