

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					

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				

F5-MD0800



F5-MD1600



F5-MD0008N



F5-MD0016N



F5-MD0008R



F5-MD0016R



F5-MD0404N



F5-MD0808N



F5-MD0404R



F5-MD0808R



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
Imoedence 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 Strucutre	Removable terminal block			
Working Temperature	-10~60°C			
Storage Temperature	-20~70°C			
Environment Humidity	5%~95%RH (Non-condensing)			
Installaton	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, PT1000, 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

F5-4G



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 Strucutre	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

