FT1A Series Smart AXIS - 24 I/O

Key Features

- Available in 100-240 VAC and 24 VDC power
- Available with/without embedded LCD
- 10 Amp Relay contacts
- USB Mini-B Programming Port
- Embedded 4-pt analog inputs (0-10VDC, 10-bit, DC power)
- Integrated 4 x 100KHz high-speed counter
- Embedded Ethernet port
- Supports Modbus TCP and RTU
- Optional RS232C/RS485 adapter

General Specifications

Part Numbers	FT1A-H24RA	FT1A-B24RA	FT1A-H24RC	FT1A-B24RC
Appearance				
LCD Screen	Yes	N/A	Yes	N/A
Operating Temperature	0 to +55°C (operating ambient temperature)			
Storage Temperature	−25 to +70°C (no freezing)			
Rated Power Voltage	24V DC		100 to 240V AC	
Allowable Voltage Range	20.4 to 28.8V DC (Including ripple voltage)		85 to 264V AC	
Rated Power Frequency	–		50/60Hz (47 to 63Hz)	
Maximum Power Consumption	4.8W		41VA	
Weight	Approx. 310g		Approx. 400g	

Function Specifications

Part Numbers		FT1A-H24RA, B24RA	FT1A-H24RC, B24RC
Program Capacity [Note 1]		47,400 bytes (11,850 steps)	
Input	Points	16	
	Digital Input (Terminal No.)	12 (I0 to I7, I10 to I13)	16 (I0 to I7, I10 to I17)
	Shared Analog Input (Terminal No.)	4 (I14 to I17)	–
	Output Points	8	
	10A Relay Output (Terminal No.)	4 (Q0 to Q3)	
	2A Relay Output (Terminal No.)	4 (Q4 to Q7)	
	Transistor Output (Terminal No.)	–	
User Program Storage		Flash ROM (10,000 rewriting life)	
Backup Function	RAM	Backup data: Internal relay, shift register, counter current value, data register [Note 2], clock data (year, month, and day)	
	Backup Duration	Approx. 30 days (typical) at 25°C after backup battery fully charge	
	Battery	Lithium	
	Charging Time	Approx. 15 hours for charging from 0% to 90% of full charge	
	Battery Life	5 years	
	Replaceability	Not possible	
Clock Function [Note 3]		Clock accuracy: ±30 sec/month (typical) at 25°C	
Control System		Stored program system	

Specifications con't

Part Numbers		FT1A-H24RA, B24RA	FT1A-H24RC, B24RC
Instruction Words	Basic Instructions	42	
	Advanced Instructions	107	
Processing Time	Basic Instruction	0.95ms (1000 steps)	
	END Processing	640µs	
Internal Relay		1024	
Shift Register		128	
Data Register		2,000	
Counter (adding, reversible)		200	
Timer (1-sec, 100ms,10ms, 1ms)		200	
Input Filter		Without filter, 3 to 15ms (selectable in increments of 1ms)	
Catch Input/Interrupt Input	Input Points	6	
Self-diagnostic Function		Keep data, Power failure, Clock error, Watchdog timer, Timer/counter preset value change error, User program syntax, User program execution, System error, Memory cartridge transfer error	
High-speed Counter	Points	Total 6 points	–
	Maximum Counter Frequency	Single/two-phase selectable: 100kHz (2 points) , Single-phase: 100kHz (4 points)	
	Counting Range	0 to 4,294,967,295 (32 bit)	
	Operation Mode	Rotary encoder mode and adding counter mode	
Pulse Output (Maximum frequency: 100kHz)	Points	–	
Pulse Output (Maximum frequency: 5kHz)	Points	–	
Analog Voltage Input	Points (Terminal No.)	4 (I14 to I17)	–
	Input voltage Range	0 to 10V DC	
	Digital Resolution	0 to 1000	
USB Port	Points	1	
	USB Standard	USB 2.0	
	Connector	Mini-B type	
Expansion Communication Ports		1	
Ethernet Port		1	
Memory Cartridge Connectors		1	
SD Memory Card Slots		–	

1. Step is equivalent to 4 bytes.
2. Among data registers D0 to D1999, only D0 to D999 are backed up.
3. Set the calendar/clock using the clock function in WindLDR.
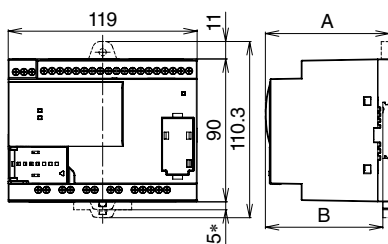
Dimensions (mm)

With LCD
FT1A-H24*A/*C
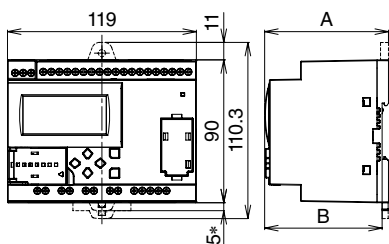
Without LCD
FT1A-B24*A/*C

Dimension Table

	A	B
FT1A-H24RA	60	56
FT1A-B24RA	60	56
FT1A-H24RC	78	74
FT1A-B24RC	78	74

Mounting Hole Layout