New Generation PLC

FT1A Series SmartAXIS - 12 I/O

Key Features

- Available in 100-240V AC and 24V DC power
- Available with/without embedded LCD
- 10 Amp Relay contacts
- USB Mini-B Programming Port
- Embedded Real Time Clock
- Embedded 2-pt analog inputs (0-10V DC, 10-bit, DC power)
- Integrated 4 x 100KHz high-speed counters

General Specifications

Part Numbers	FT1A-H12RC	FT1A-B12RC	FT1A-H12RA	FT1A-B12RA
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	100 to 240V AC		24V DC	
Allowable Voltage Range	85 to 264V AC		20.4 to 28.8V DC (Including ripple voltage)	
Rated Power Frequency	50/60Hz (47 to 63Hz)		–	
Maximum Power Consumption	18VA		4.3W	
Weight	Approx. 230g		Approx. 190g	

Function Specifications

Part Numbers		FT1A-H12RA, B12RA	FT1A-H12RC, B12RC
Program Capacity Note 1		12,000 bytes (3,000 steps)	
Input	Points	8	
	Digital Input (Terminal No.)	6 (I0 to I5)	8 (I0 to I7)
	Shared Analog Input (Terminal No.)	2 (I6, I7)	–
	Output Points	4	
	10A Relay Output (Terminal No.)	4 (Q0 to Q3)	
	2A Relay Output (Terminal No.)	–	
	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 on next page

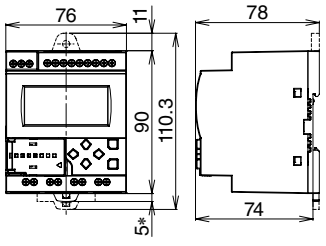
Specifications con't

Part Numbers		FT1A-H12RA, B12RA	FT1A-H12RC, B12RC
Instruction Words	Basic Instructions	42	
	Advanced Instructions	99	
Processing Time	Basic Instruction	0.95ms (1000 steps)	
	END Processing	640µs	
Internal Relay		1024	
Shift Register		128	
Data Register		400m	
Counter (adding, reversible)		100	
Timer (1-sec, 100ms,10ms, 1ms)		100	
Input Filter		Without filter, 3 to 15ms (selectable in increments of 1ms)	
Catch Input/Interrupt Input	Input Points	4	
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 4 points	–
	Maximum Counter Frequency	Single/two-phase selectable: 100kHz (2 points) , Single-phase: 100kHz (2 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.)	2 (I6, I7)	–
	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		–	
Ethernet Port		–	
Memory Cartridge Connectors		1	
SD Memory Card Slots		–	

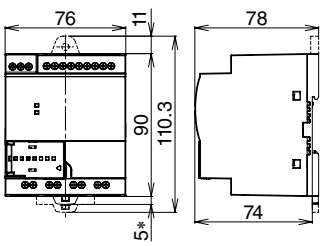
1. Step is equivalent to 4 bytes.
2. Among data registers D0 to D1999, only D0 to D999 are backed up.
3. Set the calendar/clock using the clock function in WindLDR.

Dimensions (mm)

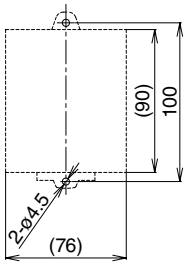
With LCD
FT1A-H12*A/*C



Without LCD
FT1A-B12*A/*C



Mounting Hole Layout



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