



# FT1A Series Smart AXIS - 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-H12RA	FT1A-B12RA	FT1A-H12RC	FT1A-B12RC	
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	4.3W		18VA		
Weight	Approx. 190g		Approx. 230g		



# **Function Specifications**

Part Numbers		FT1A-H12RA, B12RA	FT1A-H12RC, B12RC	
Program Capacity Note 1		12,000 bytes (3,000 steps)		
	Points	8		
Input	Digital Input (Terminal No.)	6 (I0 to I5)	8 (I0 to I7)	
	Shared Analog Input (Terminal No.)	2 (16, 17)	-	
	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

Part Numbers		FT1A-H12RA, B12RA	FT1A-H12RC, B12RC	
lu stureti su Manda	Basic Instructions	42		
Instruction Words	Advanced Instructions	99		
Durana ani ang Tinan	Basic Instruction	0.95ms (1000 steps)		
Processing Time	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	_		
	Points (Terminal No.)	2 (16, 17) –		
Analog Voltage Input	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		-		

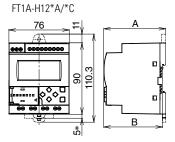
1. Step is equivalent to 4 bytes.

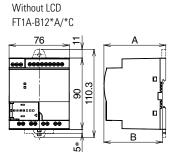
2. Among data registers D0 to D1999, only D0 to D999 are backed up.

3. Set the calendar/clock using the clock function in WindLDR.

## Dimensions (mm)

With LCD





# A B FT1A-H12RA 60 56 FT1A-B12RA 60 56 FT1A-H12RC 78 74 FT1A-B12RC 78 74

#### Mounting Hole Layout

