



FT1A Series Smart AXIS - 48 I/O

Key Features

- · Available in 100-240 VAC and 24 VDC power
- Available with/without embedded LCD
- USB Mini-B Programming Port
- Embedded 8-pt analog inputs (0-10VDC, 10-bit, DC power)
- Integrated 4 x 100KHz high-speed counters
- Embedded Ethernet port
- Supports Modbus TCP and RTU
- SD Memory card for data logging and program storage
- Optional RS232C/RS485 adapter
- 100KHz high-speed outputs



General Specifications

Part Numbers	FT1A-H48KA, H48SA	FT1A-B48KA, B48SA	FT1A-H48KC, H48SC	FT1A-B48KC, B48SC	
Appearance	**	12.00	44		
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	6.0W		43VA		
Weight	Approx. 380g		Approx. 540g		



Function Specifications

Part Numbers		FT1A-H48KA, H48SA, B48KA, B48SA	FT1A-H48KC, H48SC, B48KC, B48SC	
Program Capacity Note 1		47,400 bytes (11,850 steps)		
Input	Points	30		
	Digital Input (Terminal No.)	22 (I0 to I7, I10 to I17, I20 to I25)	30 (I0 to I7, I10 to I17, I20 to I27, I30 to I35)	
	Shared Analog Input (Terminal No.)	8 (126, 127, 130 to 135)	-	
	Output Points	18		
	10A Relay Output (Terminal No.)	-		
	2A Relay Output (Terminal No.)	-		
	Transistor Output (Terminal No.)	18 (Q0 to Q7, Q10 to Q17, Q20, Q21)		
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 charged		
	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

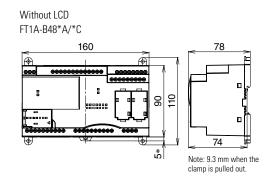
Part Numbers		FT1A-H48KA, H48SA, B48KA, B48SA	FT1A-H48KC, H48SC, B48KC, B48SC	
In atomical Manda	Basic Instructions	42		
Instruction Words	Advanced Instructions	DC: 125, AC: 111		
Proposing Time	Basic Instruction	0.95ms (1000 steps)		
Processing Time	END Processing	640µs		
Internal Relay		1024		
Shift 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	2 (Q14, Q15)		
Pulse Output (Maximum frequency: 5kHz)	Points	2 (Q16, Q17)		
	Points (Terminal No.)	8 (I26, I27, I30 to I35)	-	
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		2		
Ethernet Port		1		
Memory Cartridge Connectors		1		
SD Memory Card Slots		1		

- 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-H48*A/*C Note: 9.3 mm when the

clamp is pulled out.



Mounting Hole Layout



