

**THE MITSUBISHI ALPHA**  
Pioneering a New Generation In Control

**ALPHA Specifications**

Base Units	AL2-10MR-A*	AL2-10MR-D*	AL2-14MR-A	AL2-14MR-D	AL2-24MR-A	AL2-24MR-D
I/O	10	10	14, expandable to 18	14, expandable to 18	24, expandable to 28	24, expandable to 28
Power Supply	100-24 VAC	24 VDC	100-240 VAC	24 VDC	100-240	24 VDC
Digital Inputs	6 (100-240 VAC)	6 (24 VDC)	8 (100-240 VAC)	8 (24 VDC)	15 (100-240 VAC)	15 (24 VDC)
Digital Inputs with Analog Capability (0-10V, 8 bits)	-	-	-	8	-	8
Outputs	4 (relay 8 A)	4 (relay 8 A)	6 (8 A)	6 (8 A)	9 (4x8 A/5x 2 A)	9 (4x8 A/5x 2 A)
FBS/Functions						
Dimensions (WxHxD) Inches	2.8 x 3.5 x 2.2	2.8 x 3.5 x 2.2	4.9 x 3.5 x 2.0	4.9 x 3.5 x 2.0	4.9 x 3.5 x 2.0	4.9 x 3.5 x 2.0

\*Not expandable



**Expansion Adapter Modules**

AL2-4EX*	4 digital inputs (24 VDC) with 2 selectable high-speed counters (1kHz)
AL2-4EX-A2*	4 digital inputs (240 VAC)
AL2-4EYR*	4 relay outputs (2 A)
AL2-4EYT*	4 transistor outputs (1 A)
AL2-2TC-ADP	2 Channel TC Input Adapter Module
AL2-2PT-ADP	2 Channel PT Input Adapter Module
AL2-2DA*	2 Channel Digital to Analog Expansion Module

\*Cannot be used with AL2-10MR-A(D) units.

**Accessories**

ALPHA-WIN-C*	Software CD for Windows, in 6 languages (D/GB/F/I/SP/S), manuals, sample programs
AL-232CAB	Cable for connecting ALPHA/ALPHA2 to PC, 2.5m
AL2-GSM-CAB	RS-232C for second communications port
AL2-EEPROM-2	Memory cassette for 200 Bs
AL2-ASI-BD	Expansion module for ALPHA2, AS-i field bus, slave

\*Number of Licenses

**The ALPHA family delivers unbeatable features and performance:**

- Comprehensive range of ready-to-use functions
- Large program memory for up to 200 function blocks
- LCD with 8 function keys and HMI functionality
- Eight analog inputs, gain function, integrated Schmitt trigger controller
- Integrated calendar/clockfunction supporting up to 1,200 on/off commands
- Communication capabilities for the AS-i field bus
- Fast 1kHz inputs in AL2-4EX expansion module
- Second serial port for published protocol and GSM modem support
- Suitable for outdoor applications down to -25° C (-13° F)
- DNV, CE, UL and cUL certifications

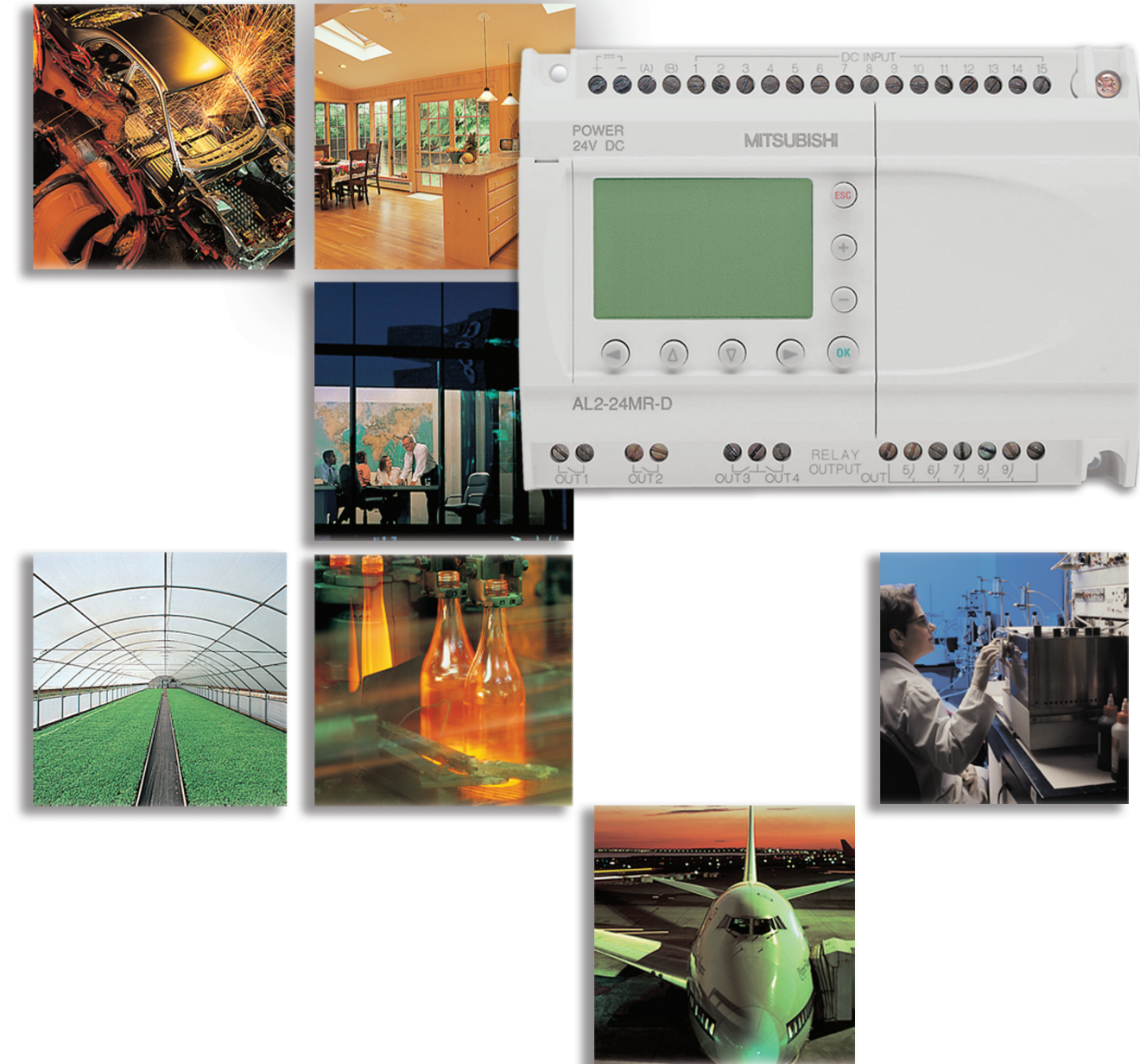
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Printed with soy inks.  
L-VH-06013 • Effective March, 2010.  
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# Alpha2 Series

Simple Application Controllers



- Programmable Automation Controllers
- Programmable Logic Controllers
- Human Machine Interfaces
- Motion Controllers
- Servo Systems
- Variable Frequency Drives
- Robots
- Computerized Numerical Controls
- Low Voltage Switchgear

[www.meau.com](http://www.meau.com) 847-478-2100

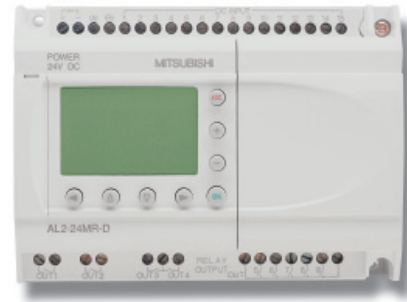


**Empowering Industries**



# α2

Automate your process, machines, or home with Alpha2 Series Controllers. Feature-packed and advanced technology keeps the Alpha2 controller a step ahead of its competitors. The Alpha2 provides easy, flexible and powerful control rugged enough for the factory and simple enough for the home.



## FEATURES

- Built-in Display
- Real Time Clock
- Scheduling Function
- Programming via the Front Panel Keys
- Analog/Discrete Inputs
- 100-240 VDC Power Supply
- Transistor Outputs
- High Current Relay Outputs (up to 8 Amps)
- 20 Day Memory Backup for Data
- 20 Year Memory Backup for Programs
- Password Protection for Programs
- Remote Communication Function via Modem

### Advanced CPU Features

- Huge Memory, 200 Function Blocks or 5000 Bytes
- Short Message Service Capability with GSM Modems
- Published Protocol for Data Access
- Extended Temperature Range
- PWM Command
- 37 Instructions (Function Blocks)
- Multi-Language Capability (English, Spanish, German, French, Italian, Swedish)

### Advanced Display Features

- Scrolling or Flickering Text
- Screen Sequencing
- Large Backlit Display
- Bar Graph Display
- Message Flickering
- 12 Characters x 4 lines
- Data Entry with Three Levels of Password Protection

### Advanced Extension Modules

- DC Input Extension Module, AL2-4EX
- AC Input Extension Module, AL2-4EX-A2
- Output Relay Extension Module, AL2-4EYR
- Output Transistor Extension Module, AL2-4EYT
- AS-i Communication Module, AL2-ASI-BD

## ANALOG MODULES AND PID INSTRUCTION

### AL2-2PT-ADP

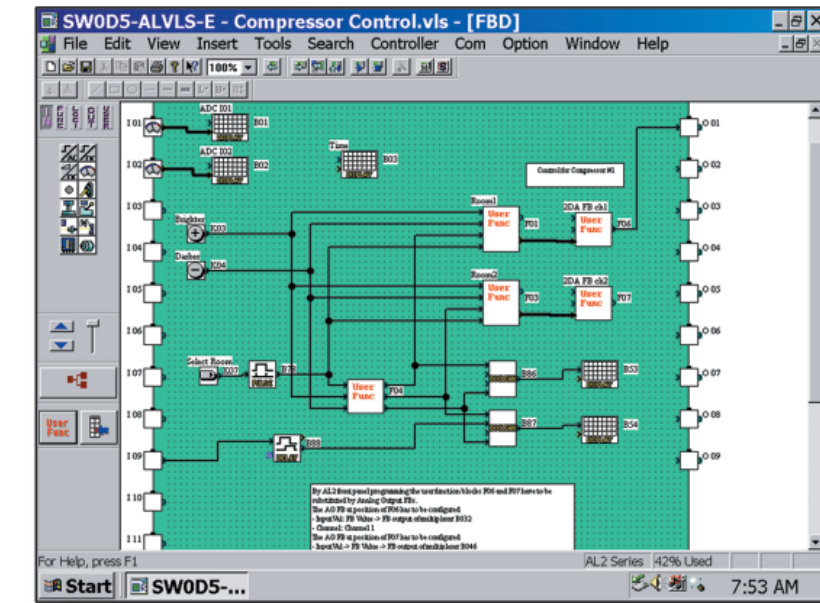
- 2 channel PT100 Analog Input Adaptor
- Compensated Range: -50°C~200°C
- Analog voltage output: 0~10V
- Resolution: 0.5°C/digit
- Accuracy: +/-1.5% for all temperature ranges, +/- 1% for 25°C
- Conversion time: 20ms per channel
- For use with DC base units only

### AL2-2TC-ADP

- 2 channel K-Type Thermocouple Analog Input Adaptor
- Compensated Range: -50°C~450°C
- Analog voltage output: 0~10V
- Resolution: 1.0°C/digit
- Accuracy: +/-2.0% for all temperature ranges, +/-1.5% for 25°C
- Conversion time: 20ms per channel
- For use with DC base units only

### AL2-2DA

- 2 channel Analog Output Module
- Analog voltage output: 0~10V and current output 4~20mA
- Resolution: 2.5mV (voltage output of 0~10V) 8µA(current output of 4~20mA)
- Conversion time: 1-channel 10ms, 2-channels 20ms



## VIEW LOGIC SOFTWARE (VLS)

Visual Logic Software provides the perfect fit for both new and experienced programmers. The preprogrammed Function Blocks, Windows® based tools and extensive mouse commands, let users quickly get up to speed on program development.

Debugging programs is fast and simple thanks to the Simulation Mode. Force Inputs On/Off manually. View the Function Block operations and Output status onscreen. Eliminate program glitches before downloading!

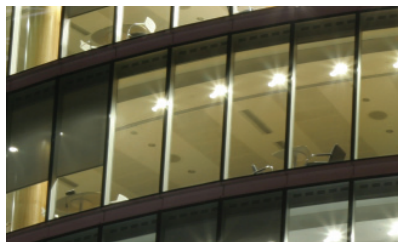
## FEATURES

- Password Protection
- User Defined Icons
- Controller Diagnostics
- On-line Editing
- Com Configuration
- Extensive Help Files
- Date Format Settings
- Remote Maintenance and Programming
- Simulation Mode
- Everything you need for fast and easy programming!



## LOGIC AND FUNCTION BLOCKS

- AND
- OR
- NOT
- NAND
- NOR
- XOR
- Boolean
- Set/Reset
- Retentive Set/Reset
- Delay
- Alternate
- Retentive Alternate
- Flicker
- Oneshot
- Offset
- Compare
- Counter
- Up/Down Counter
- Pulse
- TimeSwitch
- TimeSwitchM (with Menu Edit)
- Schmitt Trigger
- Zone Compare
- Display
- Speed
- PWM (Pulse Width Modulation)
- Add
- HourMeter
- Subtract
- Multiply
- Divide
- Calculate
- Shift
- GSM SMS
- Random
- Delayed One Shot
- Delayed Alternate



## APPLICATIONS

- Machine and Process Automation
- Pump Control
- Fluid Level Control in Tanks
- Pressure Monitor
- Temperature Control
- Motor Control
- Relay Replacement
- Discrete Component Replacement

- HVAC Bypass Valve for Variable Frequency Drives
- Shutter/Gate Control
- Security Systems

- Airports, Train Stations, Hospitals, Traffic Systems

- Testing and Measuring Equipment

- Lighting, Movement Control

- Farms, Greenhouses, Livestock Enclosures
- Temperature, Watering, Feeding Control

- Educational Materials in Schools, Lab Classes
- Residential Lighting, Security and Temperature Control