

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



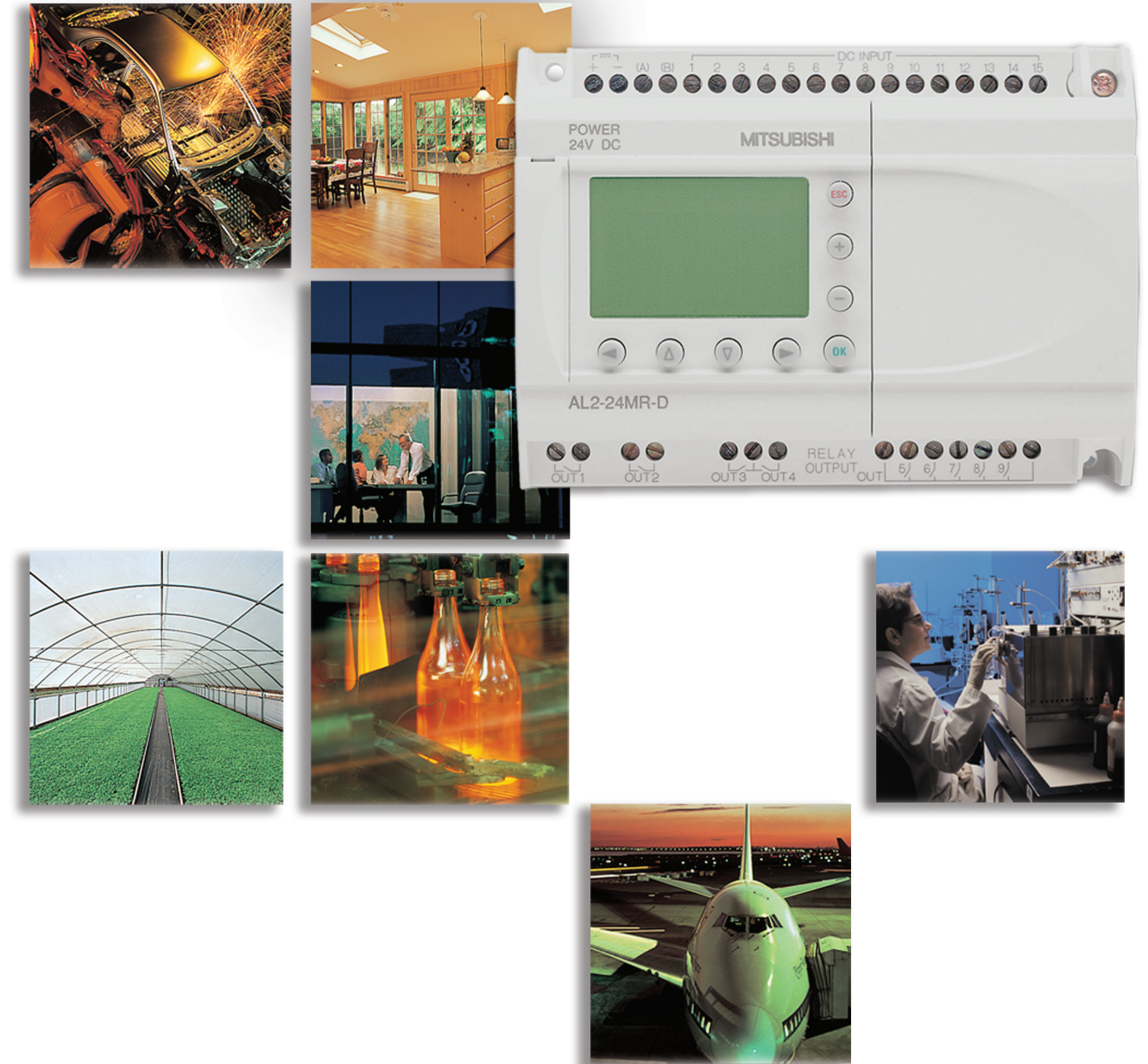
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Alpha2 Series

Simple Application Controllers



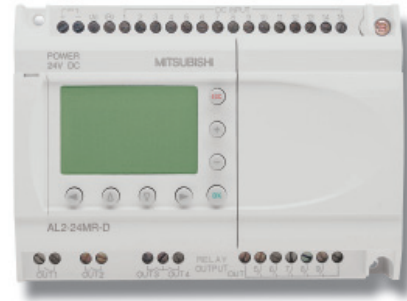
- Programmable Automation Controllers
- Programmable Logic Controllers
- Human Machine Interfaces
- Motion Controllers
- Servo Systems
- Variable Frequency Drives
- Robots
- Computerized Numerical Controls
- Low Voltage Switchgear

www.meau.com 847-478-2100



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

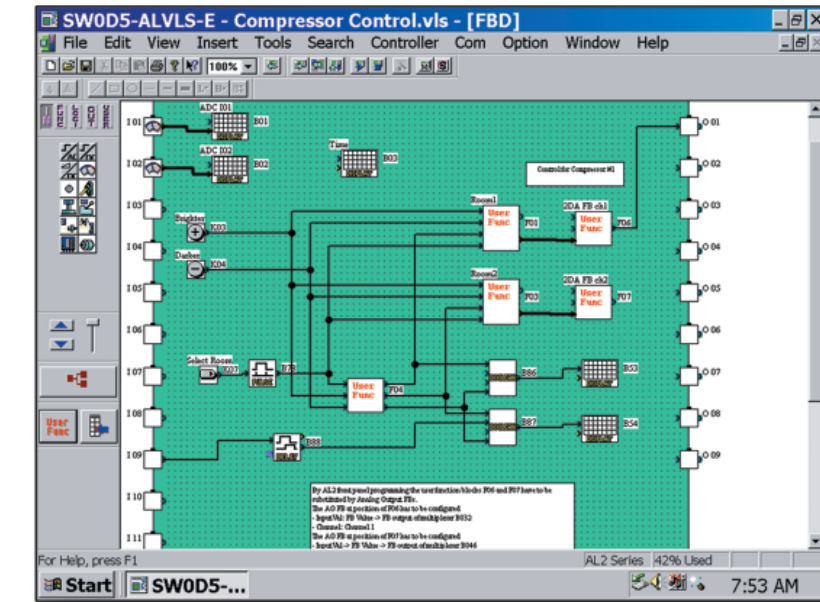
- 2 channel PT100 Analog Input Adaptor
- Compensated Range: -50°C~200°C
- Analog voltage output: 0~10V
- Resolution: 0.5°C/digit
- Accuracy: +/-1.5% for all temperature ranges, +/- 1% for 25°C
- Conversion time: 20ms per channel
- For use with DC base units only

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