

# Altech Corp.®

Serving the Automation & Control Industry since 1984



ISO 9001  
QMI-SAI Global



## Altech Smart Relay & Digital Multi-Timer

# Altech® Smart Relay



## Standards and Certifications

- UL 508
- IEC 61000-3-2
- IEC 61000-4-2-1~11

## Features

- Supports upto 48 I/Os (32 digital inputs & 16 digital outputs)
- DST Feature Available
- Backlit LCD Screen for display & modification of pre-selected parameters of functional blocks, viewing I/O status and programming on the device
- PC software for programming, online & offline simulation, documentation & printing
- Designed for use in automation for commercial & Industrial sectors
- Modbus Communication

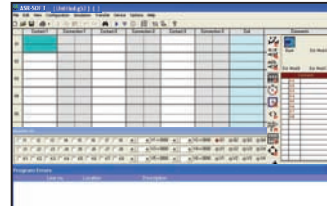
## Programming Features

- 250 lines of ladder programming
- 16 soft text messages, Time Switches, Compare Counters, Timers, Counters & 12 analog functions

## Function Blocks

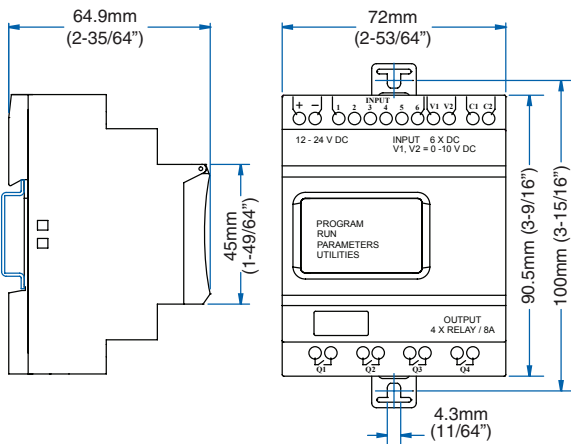
|                     |   |
|---------------------|---|
| Timers:             | 16 (ON Delay, Interval, Cyclic ON-OFF, OFF Delay) |
| Counters:           | 16 (Up/Down, Retentive selectable)                |
| Time Switches:      | 16 (Weekly / Daily)                               |
| Compare Counters:   | 16  |
| Analog Functions:   | 12 (DC Model)                                     |
| Soft Text Messages: | 16 (Priority Driven)                              |
| Auxiliary Relays:   | 32  |

**FREE SOFTWARE DOWNLOAD**

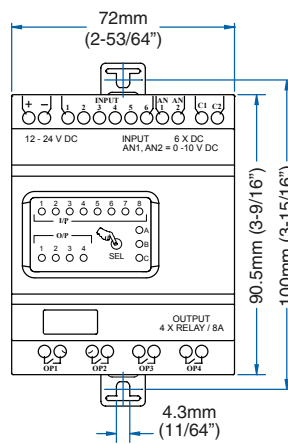


[AltechCorp.com/SmartRelay](http://AltechCorp.com/SmartRelay)

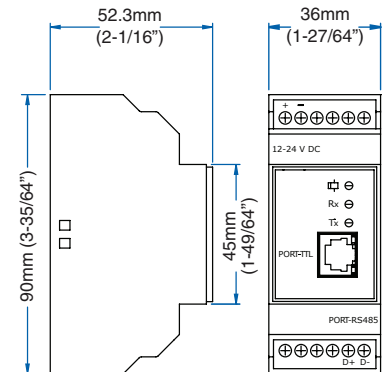
## Mounting Dimensions



**Programmable Smart Relay  
Base Module**



**Programmable Smart Relay  
Expansion Module**



**Programmable Smart Relay  
Communication Module**



# Altech Smart Relay

## Technical Specifications

|                                       |  |   |
|---------------------------------------|--|---|
| <b>I/O Extensions (Max.)</b>          | 3  |   |
| <b>Utilization Category</b>           | <b>AC-15</b>                             | Rated Voltage (Ue): 120/240 V,<br>Rated Current (Ie): 3.0/1.5 A   |
|                                       | <b>DC-13</b>                             | Rated Voltage (Ue): 24/125/250 V,<br>Current (Ie): 2.0/0.22/0.1 A |
| <b>Power Reserve (For Clock Only)</b> | 150h at -10°C to +55°C                   |   |
| <b>Operating Temperature</b>          | -10°C to +55°C                           |   |
| <b>Storage Temperature</b>            | -25°C to +70°C                           |   |
| <b>Humidity (Non Condensing)</b>      | 95% (Rh)                                 |   |
| <b>Enclosure</b>                      | Flame Retardant UL 94-V0                 |   |
| <b>Mounting</b>                       | Base / DIN Rail                          |   |
| <b>Degree of Protection</b>           | IP 20 for Terminals, IP 40 for Enclosure |   |



Base Module



Expansion Module

## Base Module

| Cat. No.                       | ASR-B120AC                   | ASR-B24DC                         |
|--------------------------------|------------------------------|-----------------------------------|
| Supply Voltage (-20% to + 10%) | 110-240 VAC (50/60Hz)        | 12-24 VDC                         |
| Power Consumption              | 5W                           | 5W                                |
| Max. Supply current            | 36 mA                        | 360 mA                            |
| Digital Inputs                 | 8                            | 6                                 |
| Digital Input Range            | (0-40VAC) OFF,(80-265VAC) ON | (0-4VDC) OFF,(8-26.4VDC) ON       |
| Analog Inputs                  | N/A                          | 2 (can be used as Digital Inputs) |
| Analog Input Range             | N/A                          | 0 to 10 VDC                       |
| Digital Relay Output           | 4 NO (8A@240V AC, 5A@30V DC) | 4 NO (8A@240V AC, 5A@30V DC)      |
| Weight                         | 0.51 lb. (230 g)             | 0.51 lb. (230 g)                  |

## Expansion Module

| Cat. No.             | ASR-E120AC                   | ASR-E24DC                         |
|----------------------|------------------------------|-----------------------------------|
| Digital Inputs       | 8                            | 6                                 |
| Digital Input Range  | (0-40VAC) OFF,(80-265VAC) ON | (0-4VDC) OFF,(8-26.4VDC) ON       |
| Analog Inputs        | N/A                          | 2 (can be used as Digital Inputs) |
| Analog Input Range   | N/A                          | 0 to 10 VDC                       |
| Digital Relay Output | 4 NO (8A@240V AC, 5A@30V DC) | 4 NO (8A@240V AC, 5A@30V DC)      |
| Weight               | 0.5 lb. (225 g)              | 0.5 lb. (225 g)                   |

## RS485 Communication Module (including communication cable)

|                              |   |
|------------------------------|---|
| <b>Input</b>                 | TTL Level   |
| <b>Output</b>                | RS-485 protocol (two wires, D+, D-)                   |
| <b>Number of Nodes</b>       | 32 standard unit loads                                |
| <b>Isolation Voltage</b>     | 2000 Vrms   |
| <b>Baud Rate</b>             | 300, 600, 1200, 2400, 4800, 9600                      |
| <b>Operating temperature</b> | -10°C to +55°C  |
| <b>Storage temperature</b>   | -20°C to +70°C  |
| <b>LED Indicators</b>        | Red LED's for Tx & Rx. Green LED for Power indication |
| <b>Weight</b>                | 0.19 lb. (84 g)                                       |



Communication Cable

| Cat. No.       | ASR-C485-120AC  | ASR-C485-24DC   |
|----------------|-----------------|-----------------|
| Supply Voltage | 110-240 VAC     | 12-24 VDC       |
| Weight         | 0.18 lb. (80 g) | 0.19 lb. (84 g) |

## Accessories



| Cat. No. | ASR-MC          | ASR-USB          | ASR-RS232          |
|----------|-----------------|------------------|--------------------|
|          | Memory Card     | USB Cable        | Serial RS232 Cable |
| Weight   | 0.18 lb. (80 g) | 0.22 lb. (100 g) | 0.24 lb. (110 g)   |



## Connection Diagrams

### SUPPLY, INPUT & OUTPUT CONNECTIONS

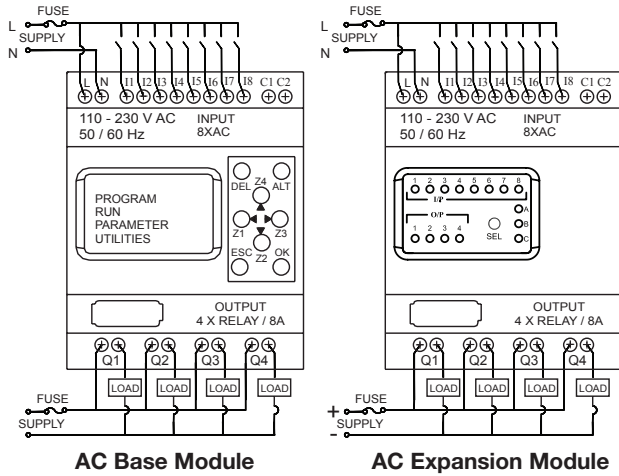


Fig. 1

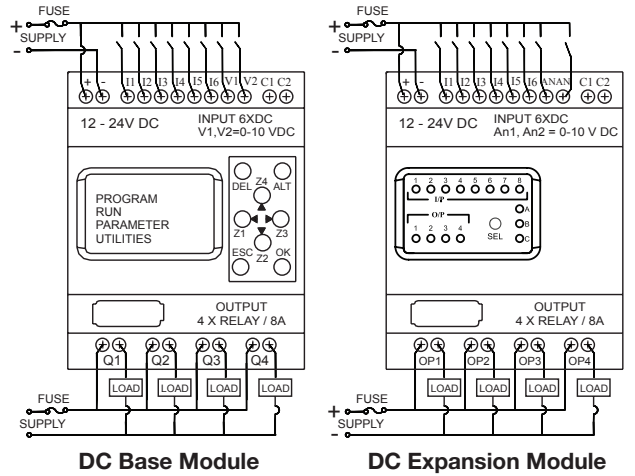


Fig. 2

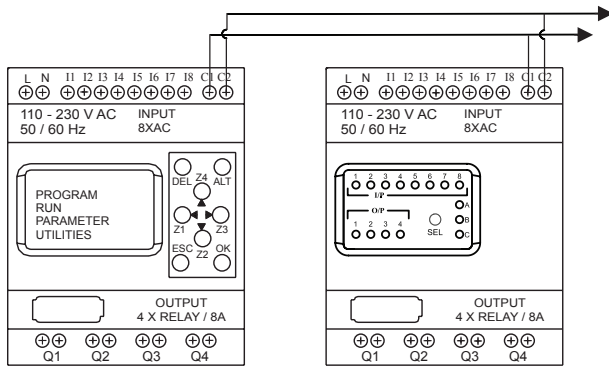


Fig. 3

Connection Between Base Module & Expansion

Same for both AC & DC



Fig. 4

Connection Between Base Module & Communication Module

#### Power Supply Wiring

1. Although the Altech Smart Relay has been designed to withstand the negative effects of any electrical noise that might be present in its power supply. It may be necessary to insert an isolation transformer between the supply and line terminals of the Altech Smart Relay.
2. While using the DC Altech Smart Relay, run the 24 VDC Input line separate from 100 ~240V AC power lines.

#### Wiring of Input/Output

1. Separate input and output lines.
2. When the output lines are running close to power supply or input lines, use shielded wires and ground them.

# Altech Universal Digital Multi-Timer

Altech's AMT-Series of Universal Digital Multi-Timers comprises 4 models featuring 8 or 18 timer functions to offer highest flexibility in controlling operations. The time range is adjustable from 0.1s to 999h. An LCD display shows current Run time information.

## Features

- Multifunctional Timer (8 or 18 Functions)
- Universal Voltage 24~265 VAC/ DC
- Wide Time Range: 0.1s ~ 999h
- 3 Digit LCD Display for Preset Time and Run Time
- DIN Rail Mounted
- 17.5mm Width

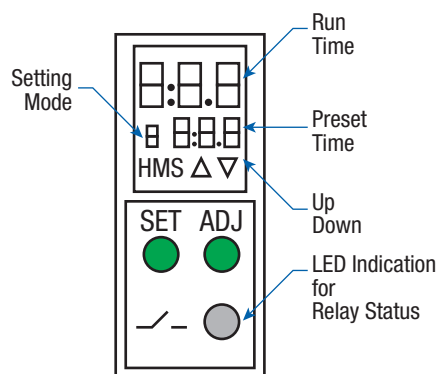


## Digital Timers

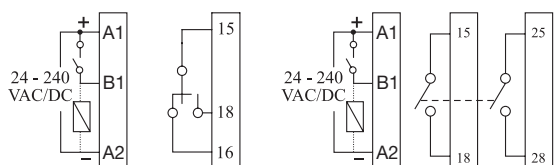
| Cat. No.                      | AMT8-S1                 | AMT8-D2 | AMT12-S1                                     | AMT12-D2 |
|-------------------------------|-------------------------|---------|--|----------|
| Output Contacts               | 1 C/O                   | 2 NO    | 1 C/O  | 2 NO     |
| No. of Timer Functions        | 8                       | 8       | 18   | 18       |
| Functions /<br>[setting mode] | 1) ON Delay [A]         |         | 1) ON Delay [Q]                              |          |
|                               | 2) Cyclic OFF/ ON [B]   |         | 2) Cyclic OFF/ ON [I]                        |          |
|                               | 3) Cyclic ON/ OFF [C]   |         | 3) Cyclic ON/ OFF [E]                        |          |
|                               | 4) Signal ON/ OFF [D]   |         | 4) Impulse on Energizing [J]                 |          |
|                               | 5) Signal OFF Delay [E] |         | 5) Accumulative Delay on Signal [K]          |          |
|                               | 6) Interval [F]         |         | 6) Accumulative Delay on Inverted Signal [L] |          |
|                               | 7) Signal OFF/ ON [G]   |         | 7) Accumulative Impulse on Signal [M]        |          |
|                               | 8) One Shot Output [H]  |         | 8) Signal ON Delay [N]                       |          |
|                               |                         |         | 9) Inverted Signal ON Delay [O]              |          |
|                               |                         |         | 10) Signal OFF Delay [P]                     |          |
|                               |                         |         | 11) Impulse ON/ OFF [R]                      |          |
|                               |                         |         | 12) Signal OFF/ ON [S]                       |          |
|                               |                         |         | 13) Leading Edge Impulse 1 [T]               |          |
|                               |                         |         | 14) Leading Edge Impulse 2 [U]               |          |
|                               |                         |         | 15) Trailing Edge Impulse 1 [V]              |          |
|                               |                         |         | 16) Trailing Edge Impulse 2 [W]              |          |
|                               |                         |         | 17) Delayed Impulse [X]                      |          |
|                               |                         |         | 18) Inverted Signal ON Delay 2 [Y]           |          |

## Specifications

|                       |  |
|-----------------------|--|
| Supply Voltage        | 24 - 265 VAC/ DC (50, 60Hz)                                    |
| Power Consumption     | 10 VA max.   |
| Timing Range          | 0.1s ~ 999h  |
| Reset Time            | 200ms max.   |
| Repeat Accuracy       | +/-0.5%  |
| Output Contact Rating | 8A @ 240 VAC/ 24 VDC (resistive)                               |
| Electrical Life       | 10,000 switching cycles  |
| Mechanical Life       | 2,000,000 switching cycles                                     |
| AC-15 Rating          | Rated Voltage (Ue): 125/ 240V, Rated Current (Ie): 3/1.5A      |
| DC-13 Rating          | Rated Voltage (Ue): 125/ 250V, Rated Current (Ie): 2/0.22/0.1A |
| Operating Temperature | -10°C ~ +55°C (+14°F ~ 131°F)                                  |
| Storage Temperature   | -20°C ~ +65°C (-4°F ~ 149°F)                                   |
| Weight                | 85g (0.14lb.)  |
| Protection Enclosure  | IP30   |
| Protection Terminals  | IP20   |
| Torque                | 0.40 Nm (3.5 lb.in.)   |
| Terminal Wire Size    | 0.3-2.5 mm <sup>2</sup> (22-14 AWG)                            |



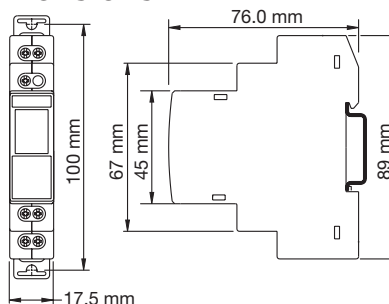
## Connection Diagrams



AMT8-S1, AMT12-S1

AMT8-S2, AMT12-S2

## Dimensions



Scan this QR code for more information.

