

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

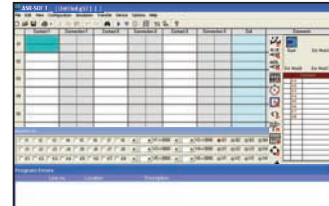
Programming Features

- 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 |

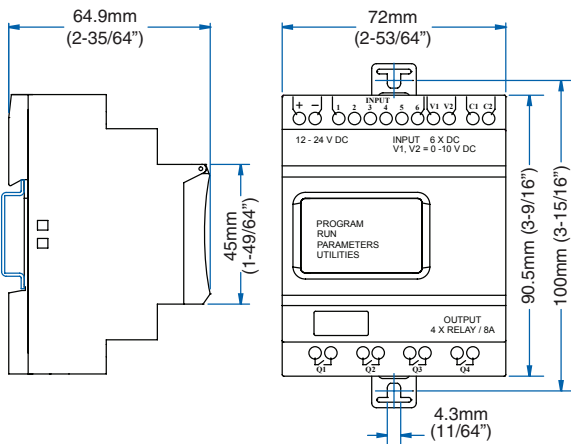
FREE SOFTWARE DOWNLOAD



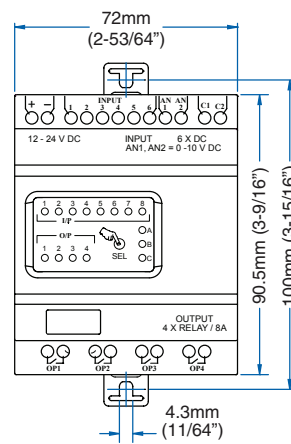
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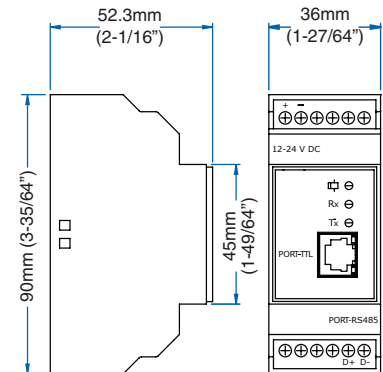
Mounting Dimensions



**Programmable Smart Relay
Base Module**



**Programmable Smart Relay
Expansion Module**



**Programmable Smart Relay
Communication Module**

Altech Smart Relay

Technical Specifications

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

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

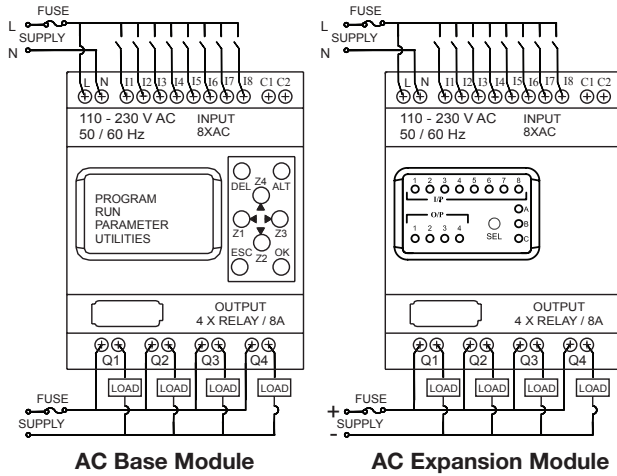


Fig. 1

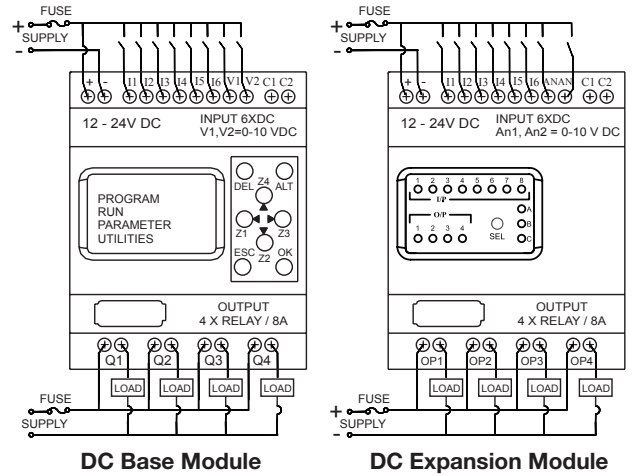


Fig. 2

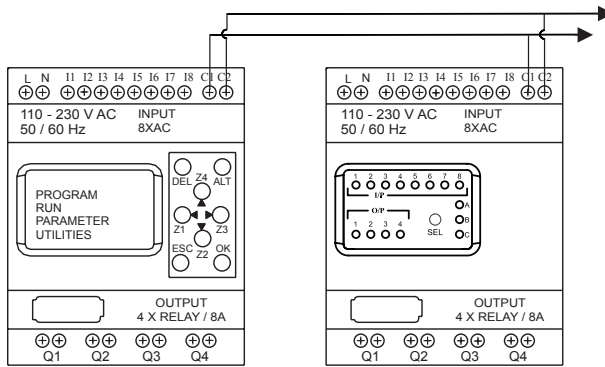


Fig. 3

Connection Between Base Module & Expansion

Same for both AC & DC

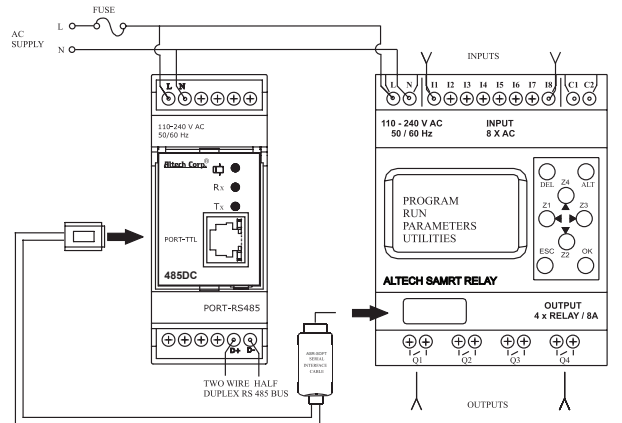


Fig. 4

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.