

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

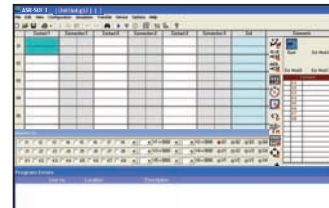
Programming Features

- 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

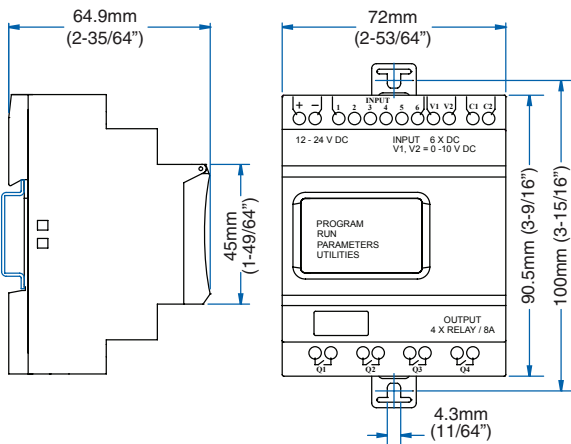
FREE SOFTWARE DOWNLOAD



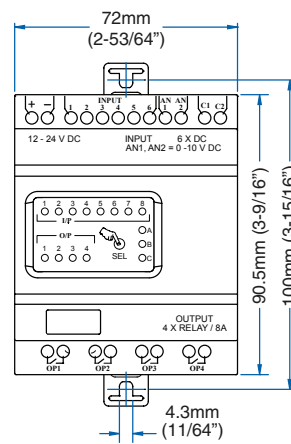
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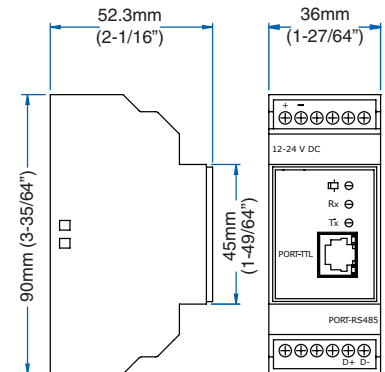
Mounting Dimensions



**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

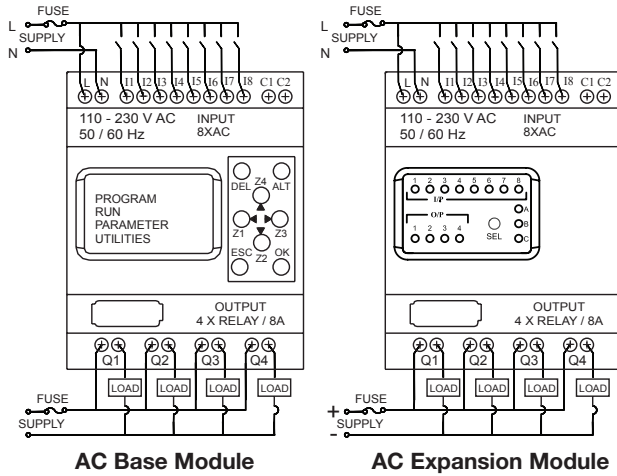


Fig. 1

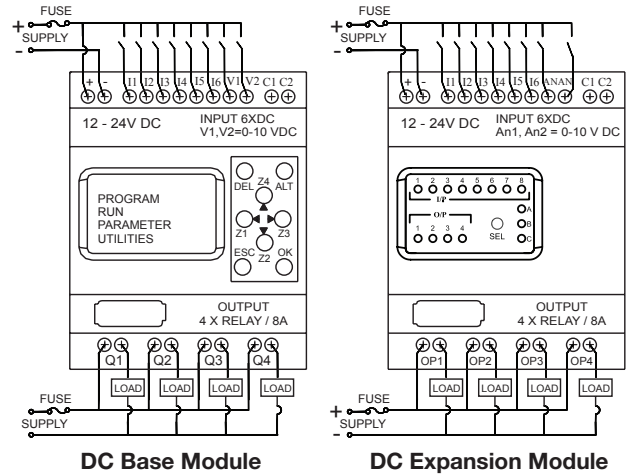


Fig. 2

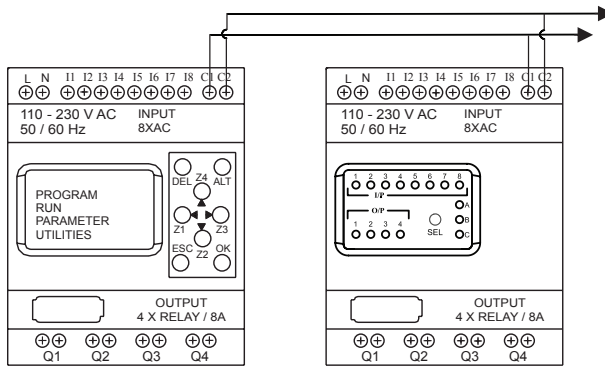


Fig. 3

Connection Between Base Module & Expansion

Same for both AC & DC

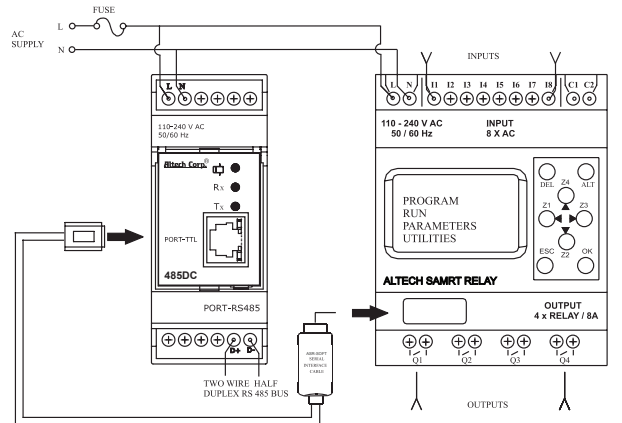


Fig. 4

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.