X-301™

WebRelay-Dual | 2 Relay, 2 Input Module
Two Optically-Isolated Inputs, Two Relays, 100 Individual Event Scheduler

PRODUCT OVERVIEW

The series III WebRelay-Dual™ (X-301) is an exciting component in our most advanced series of products.

It is a robust, full-featured, web-enabled, mini Ethernet I/O module with two 3-Amp relays and two optically-isolated digital inputs.

It has non-volatile memory for logging, a real-time clock with support for NTP (time server) synchronization and an advanced full-calender scheduler which can be used to turn on/off relays at preset times.

Its web-based user interface means it can be used right out of the box with no programming required.
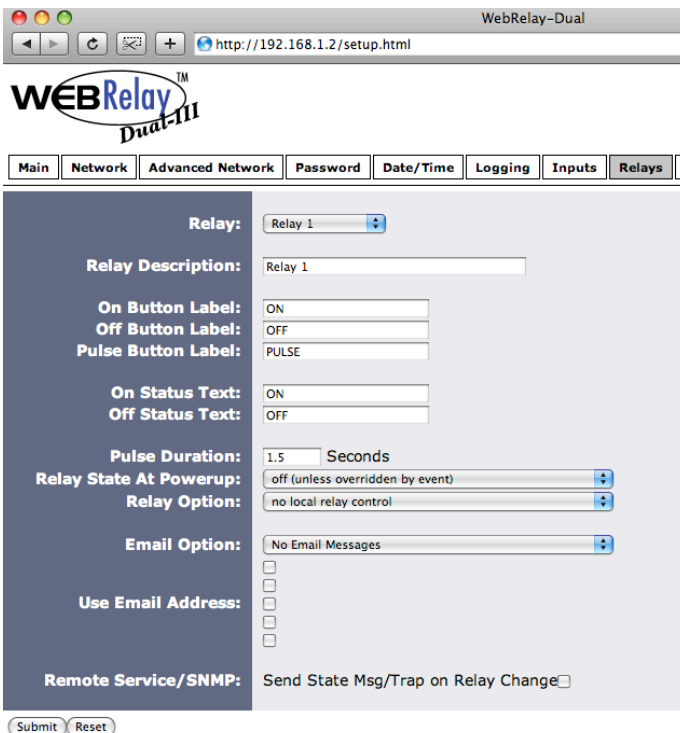
The series III WebRelay-Dual™ has many advanced features including a simple firewall, the ability to initiate a connection to remote servers, BASIC programming, SNMP, email alerts, peer-to-peer communications, internal monitoring, and more.
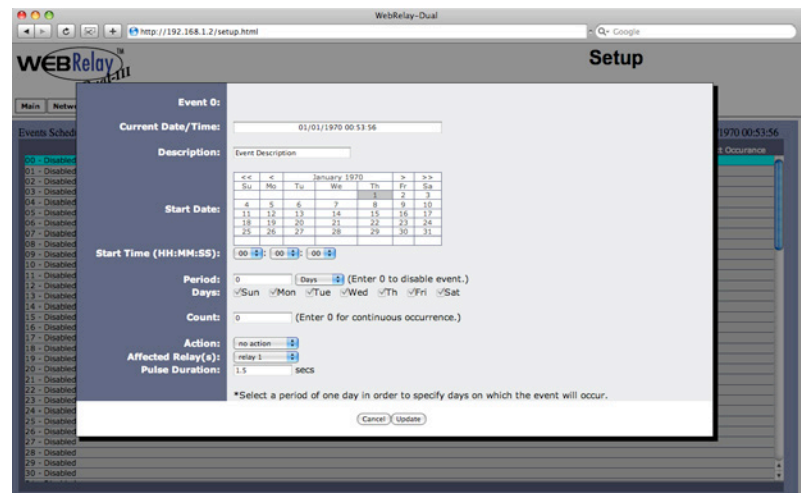
The series III WebRelay-Dual™ is ideal for many applications, including security, remote control, street sign controllers, shift bell controllers, and much more.

Features:

- Up to 100 scheduled events.
- Full calender scheduling.
- Automatic daylight savings and leap year adjustment.
- Synchronize clock with NTP server for precise time keeping.
- Capacitor-backed clock.
- Two electro-mechanical relays.
- Two optically-isolated inputs.
- Automatic and manual control.
- Control and configure using a web browser.
- No software required.
- Customizable web-based control page.
- Settings stored in non-volatile memory.
- BASIC script support for advanced functionality.
- Remote services; X-301 can be configured to initiate connection to a remote server.
- HTTP, SNMP, SMTP, Modbus TCP/IP, DHCP.
- Email alerts.
- Event and periodic logging.
- System voltage and internal temperature monitoring.
- Removable 14-pin terminal connector for easy installation.
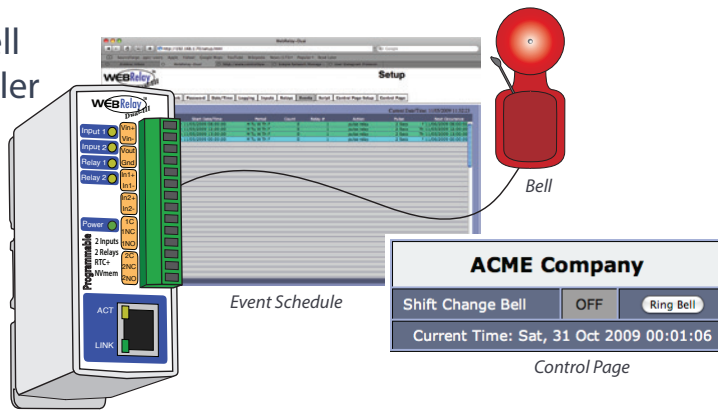- Rugged DIN-Rail/wall mountable enclosure.

Relay Options Page

Event Scheduling Page

X-301™

WebRelay-Dual | 2 Relay, 2 Input Module
Two Optically-Isolated Inputs, Two Relays, 100 Individual Event Scheduler

APPLICATIONS & SPECS

Shift Bell Controller

Bell

Event Schedule

ACME Company

| Shift Change Bell | OFF | Ring Bell |

Current Time: Sat, 31 Oct 2009 00:01:06

Control Page

Additional Applications

✓ **Traffic Warning Light Controller**

✓ **Electric Door Lock Control**

✓ **Timed Control of Electrical Outlets**

✓ **Vacant Home/Building Monitor**

✓ **Event Counter**

✓ **Extend I/O From a PLC to Another Building**

✓ **More...**

Models:
- X-301-I, X-301-24I, X-301-E

Remote Security Gate Control

Gate Controller Push Button

IP Network

Security Gate

Power Requirements
- **Voltage:**
  - X-301-I: 9-28VDC
  - X-301-24I: 9-28VDC
  - X-301-E: POE Class 1 (0.44 to 3.84 Watt) or 5V±5%
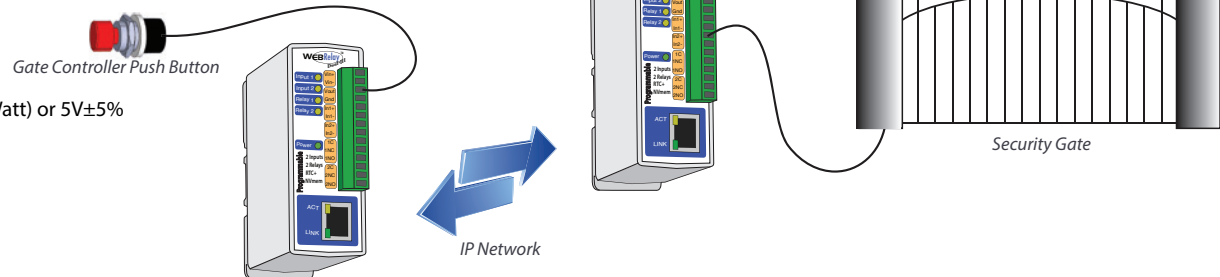- **Current:** 310mA Max

Relays
- **Number of Relays:** 2
- **Max Voltage:** 28VAC, 24VDC
- **Max Current:** 3A
- **Contact Type:** SPDT (Form 1C)
- **Load Type:** General Purpose
- **Contact Resistance:** < 50 milliohms initial
- **Contact Material:** AgSnO2
- **Electrical Life:** 100K cycles (Typical)
- **Mechanical Life:** 10M cycles (Typical)
- **Environmental Rating:** Over voltage Category II, Pollution Degree 2
- **Relay Modes:** ON/OFF or Pulsed
- **Pulse Timer Duration:** 0.1 to 86,400 Seconds (1-day)

Digital Inputs
- **Number of Inputs:** 2
- **Type:** Optically-Isolated
- **Voltage Range:**
  - X-301-I: 4-12VDC
  - X-301-24I: 11-26VDC
  - X-301-E: 4-12VDC
- **Current:**
  - X-301-I: 4mA @ 4V, 16mA @ 12V
  - X-301-24I: 3.2mA @ 11V, 8.2mA @ 26V
  - X-301-E: 4mA @ 4V, 16mA @ 12V
- **Minimum Hold Time:** 20ms
- **Input Isolation:** 1500V
- **Input Functions:** Monitor State, Control Relays, Control Remote Relays, Count, High Timer
- **Maximum Count:** 32-bit
- **Max Count Rate:** 25Hz
- **Edge Trigger:** Rising, Falling or Both

Real-Time Clock
- Manual or NTP(Network Time Protocol) setup
- **NTP Sync Period:** Once, Daily, Weekly, On Power-up
- Auto Daylight Savings Adjustment
- Battery (capacitor) Power Backup

Capacitor Power Backup
- **Backup Functions:** Retain Real-Time Clock, External Variables, Relay State, and Counters
- **Backup Duration:** 3 days minimum

Network
- **Type:** 10/100 Base-T Ethernet Port
- **Setup:** Static IP address assignment. TCP port selectable

Connectors
- **Power/Relays/Inputs:** 14-Position Removable
- **Network:** 8-pin RJ-45

LED Indicators
- **Number of LEDs:** 7
  - Power on
  - Relay coil energized 1-2
  - Digital inputs 1-2
  - Network linked
  - Network activity

Physical
- **Operating Temperature:** -40°F to 150°F (-40°C to 65.5°C)
- **Size:**
  - 1.41in (35.7mm) wide
  - 3.88in (98.5mm) tall
  - 3.1in (78mm) deep (not including connector)
- **Weight:** 5 oz (142 grams)
- **Enclosure Material:** Lexan 940 Polycarbonate Plastic
- **Enclosure Flame Rating:** UL94 V0

Protocols
- HTTP, XML, Modbus, SNMP, SMTP, Remote Services

Logging
- **Log File Size:** 512K (max 28,829 logs)
- **Storage:** Nonvolatile Flash
- **Buffer Architecture:** Circular Buffer
- Log data can be periodically read and stored on a computer

Advanced Features
- BASIC interpreter
- Remote services - Avoid most firewall issues with outbound connection to Web Services

Password Settings
- **Password protection on setup page:** Yes
- **Password protection on control page:** Optional
- **Password Encoding:** Base 64
- **Max Password Length:** 13 Characters