

The X-401™ 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 plus all of the advanced features from our 400-series products.

It has non-volatile memory for logging, a real-time clock with support for NTP (time server) synchronization and an advanced 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.

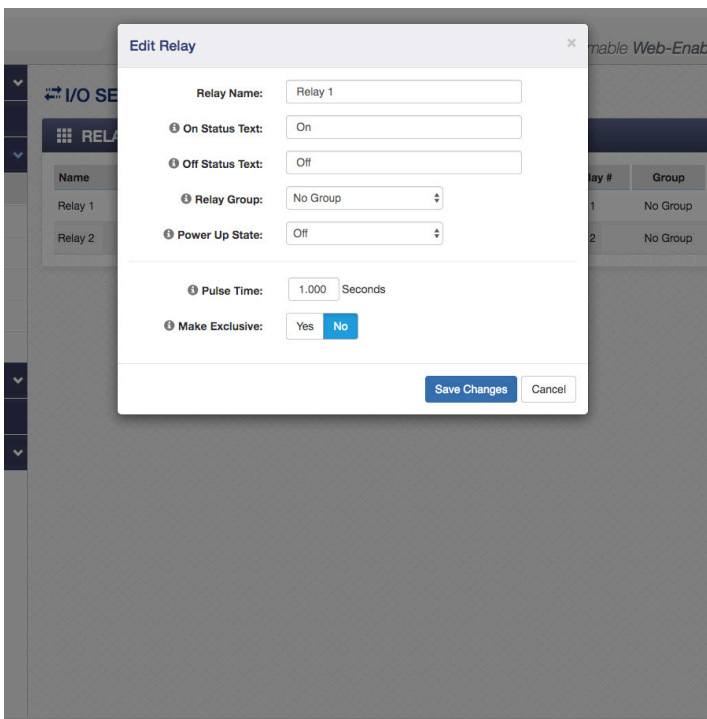
The X-401™ has many advanced features including a simple firewall, the ability to initiate a connection to remote servers, BASIC programming, SNMP, email alerts,

peer-to-peer communications, internal monitoring, and more.

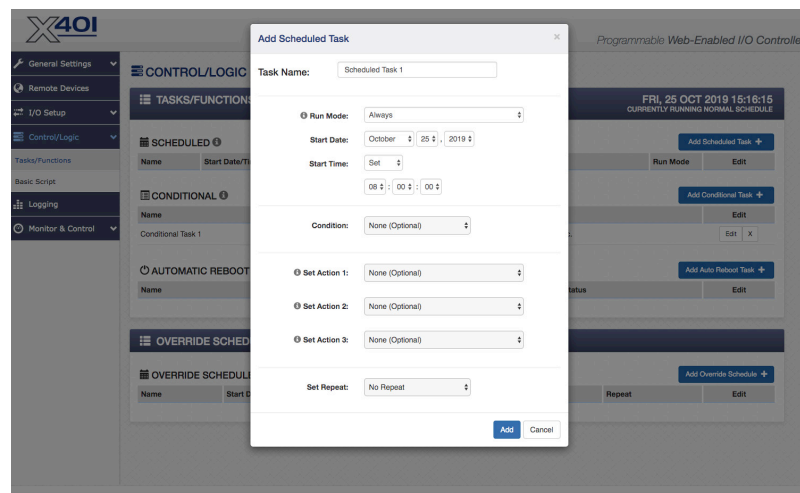
The X-401™ is ideal for many applications, including security, remote control, street sign controllers, shift bell controllers, and much more.

## Features:

- 2 Electro-mechanical relays
- Two optically-isolated digital inputs
- Peer-to-peer communications between 4xx Series modules which provides seamless I/O sharing
- User Permissions: Admin, Manager, User
- Programmable tasks for scheduled events or conditional logic
- Send email alerts based on user-defined conditions (supports encrypted email servers, such as Gmail)
- Real-Time Clock with NTP server synchronization
- Automatic daylight savings and leap year adjustment
- Customizable web-based Control Page
- BASIC script support for advanced flexibility
- Configurable logging
- Graphing (logged data)
- HTTPS/TLS encrypted
- Static or DHCP IP address configuration
- Modbus, SNMP, Remote Service, IP Filtering
- No software required
- Removable 14-Terminal connector for easy installation
- Rugged DIN-Rail/wall-mountable enclosure



Relay Options Page



Event Scheduling Page

### APPLICATIONS & SPECS

#### Shift Bell Controller



#### Models:

- X-401-I, X-401-E

#### Power Requirements

- **Voltage:**
  - X-401-I: 9-28VDC
  - X-401-E: POE and/or 9-28 VDC
- **Current:** 233mA Max

#### Relays

- **Number of Relays:** 2
- **Max Voltage:** 28VAC, 24VDC
- **Max Current:** 3A
- **Contact Type:** SPDT (Form C)
- **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)

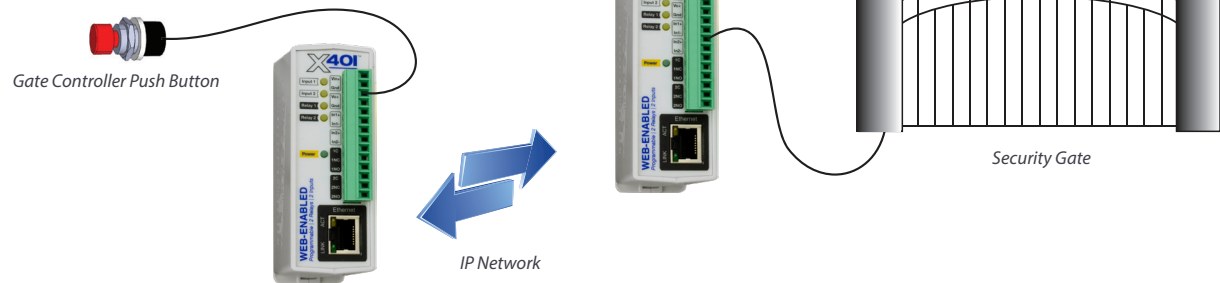
#### Digital Inputs

- **Number of Inputs:** 2
- **Type:** Optically-Isolated
- **Voltage Range:** 4-26VDC X-401-I: 4-26VDC
- **Current:** 950uA @ 4V, 8.5mA @ 26V
- **Minimum Hold Time:** 20ms
- **Input Functions:** Monitor State, Control Relays, Control Remote Relays, Scalable Counter, On Timer, Total On Timer, Frequency
- **Maximum Count:** 24-bit
- **Max Count Rate:** 200 Hz (Dependent on Configuration)
- **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

#### Remote Security Gate Control



#### Capacitor Power Backup

- **Backup Functions:** Retain Real-Time Clock, 1 Register, 2 Counters, 2 Relay States
- **Backup Duration:** 2 week minimum

#### Network

- **Type:** 10/100 Base-T Ethernet Port
- **Setup:** Static or DHCP IP address configuration

#### Connectors

- **Power/Relays/Inputs:** 14-Position, 3.81mm, 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

### 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...

#### Protocols

- HTTP, HTTPS, SSL, XML, Modbus TCP/IP, SNMP, SMTP, Remote Services

#### Logging

- **Log File Size:** 3,072-Kbyte (up to 50,688 logs)
- **Storage:** Nonvolatile Flash
- **Buffer Architecture:** Circular Buffer
- Log data can be periodically stored on a computer via FTP or email

#### Advanced Features

- Task Builder
- BASIC interpreter
- Remote services

#### Password Settings

- **Password Length:** 6-18 Characters

#### Electromagnetic Compliance

- IEC CISPR 22, CISPR 24
- EU EN55024, EN55022
- X-401-I: FCC 47CFR15 (Class B)
- X-401-E: FCC 47CFR15 (Class A)

#### Product Safety Compliance

- IEC 61010-1

