X-332™

Web Enabled Advanced I/O Controller

16 Relays, 16 Digital Inputs, 4 Analog Inputs, 1-Wire Bus, 2 Digital Counter Inputs, Peer-to-Peer Communication, Email Notifications, Basic Scripting, Scheduling, Logging

PRODUCT OVERVIEW

The X-332™ is a robust, full-featured, web-enabled Ethernet I/O module. It has 16 relays, 16 optically-isolated digital inputs, 2 counter inputs, 4 analog inputs, support for up to four temperature and/or humidity sensors, and the ability to control relays remotely on other ControlByWeb devices. It also has many additional features such as a full calendar scheduler, a BASIC script interpreter, logging, and a real-time clock with NTP synchronization.

The X-332™ has a built-in web server so its relays and inputs can be controlled and monitored using a standard web browser (or by using our CBW Mobile smartphone app). Additionally, temperature and humidity data can be graphed directly from any HTML5 compatible web browser. Email alerts can be configured based on relay and/or input states, and temperature/humidity thresholds.

Some of its many advanced features include the ability to initiate a connection to remote servers, BASIC programming, SNMP, peer-to-peer communications, internal monitoring, etc.

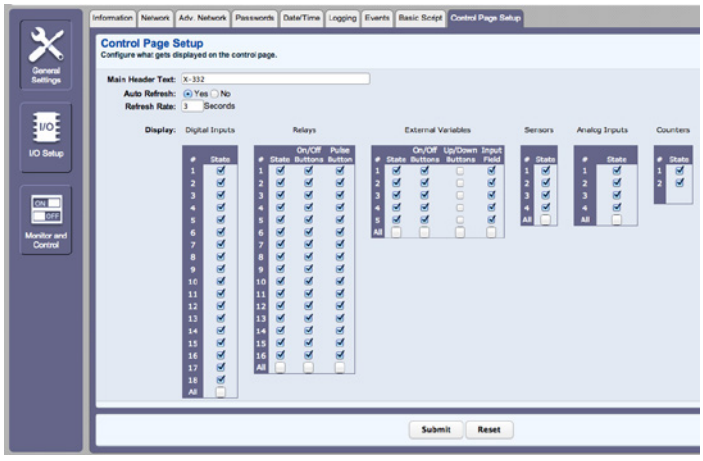
This module is ideal for many applications including security, lighting control, remote control, shift bell controllers, and much more.

Simply access and configure the X-332™ by using its web-based user interface. There is no software required, no subscription to buy, and no programming necessary for setup or use.

Features:

- 16 electro-mechanical relays (2 Amp contacts)
- 16 optically-isolated digital inputs
- 2 counter inputs
- 4 analog inputs
- One-wire bus for up to 4 temperature and/or humidity sensors
- Control up to 16 relays on other ControlByWeb devices
- Monitor and log power supply (voltage)
- Highly configurable - almost any combination of input/relay control possible
- Real-Time Clock with NTP server synchronization
- Automatic daylight savings and leap year adjustment
- Full calendar scheduling with 100 programmable events
- Email alerts based on user-defined conditions
- Built-in web server - No software required
- Customizable web-based control page
- BASIC script support for advanced flexibility
- Configurable logging
- Graphing (logged data)
- Static or DHCP IP address configuration
- XML, Modbus TCP/IP, and SNMP interface options
- Field updatable
- Removable terminal connector for easy installation
- Rugged DIN-Rail/wall-mountable enclosure

Control Page



Control Page Setup

Phone: 435-750-5999
Email: Sales@ControlByWeb.com

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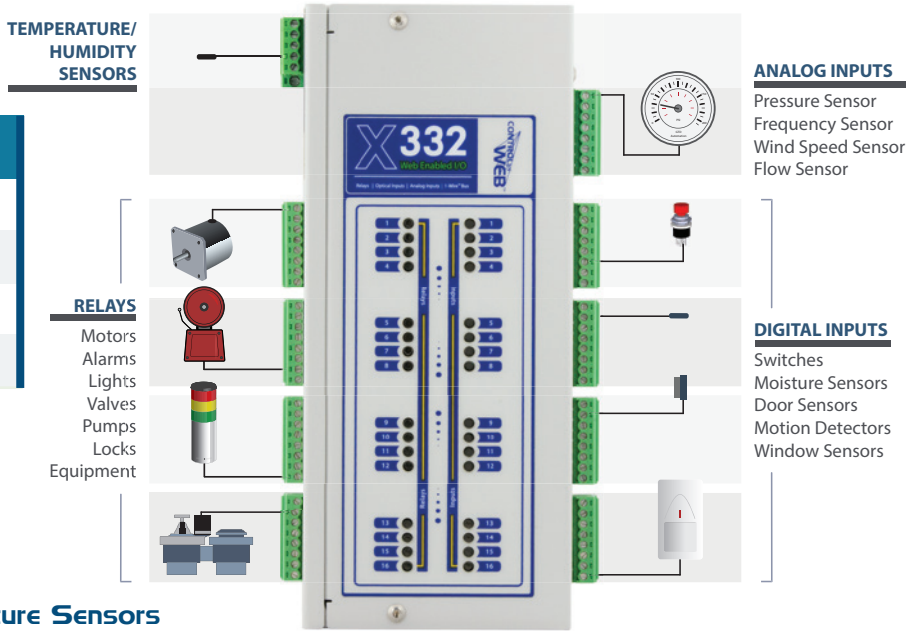
APPLICATIONS & SPECS



Additional Applications

- ✓ Real-Time Clock
- ✓ Scheduling
- ✓ Logging
- ✓ Email Notifications

Models:

- X-332-24I

Power Requirements

- Voltage: 9-28VDC
- Max Current: 1.16A Max

Relay Contacts

- Number of Relays: 16
- Max Voltage: 30VDC, 30VAC
- Max Current: 2A
- Contact Type: SPST (Form 1A)
- All Relays have a shared common
- Load Type: General Purpose
- Contact Resistance: < 100 milliohms initial
- Contact Material: AgSnO2
- Electrical Life: 100K operations (Min)
- Mechanical Life: 5M cycles (Min)
- 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: 16
- Type: Optically-Isolated
- Voltage Range: 3-26VDC
- Current: 0.6mA @ 3V, 8.2mA @ 26V
- Minimum Hold Time: 20ms
- Input Isolation: 1500V
- Input Functions: Monitor State, Control Relays, Control Remote Relays, High Timer

Counter Inputs

- Number of Inputs: 2
- Type: Non-Isolated
- Voltage Range: 0-5VDC
- Current: 47K Pullup
- Minimum Hold Time: 20ms
- Input Isolation: Non-Isolated
- Input Functions: Monitor State, Control Relays, Control Remote Relays, Count, High Timer
- Maximum Count: 32-bit
- Max Count Rate: 25Hz Max
- Edge Trigger: Rising, Falling or Both

Analog Inputs

- Number of Inputs: 4
- Type: Single-ended Channels
- Input Range: 0-5VDC
- Resolution: 12-bit
- Reference: 5.00V, 0.04%, 3ppm/C, 50mA Max

Temperature Sensors

- Maximum Number of Sensors: 4
- Type: Dallas Semiconductor DS18B20
- Temperature Range: -67°F to 257°F (-55°C to +125°C)
- Accuracy: ±0.5°C (from -10°C to +85°C)
- Sensor Functions: Thermometer, Thermostat, Relay Control, Remote Relay Control, Email Alerts, SNMP Traps, Temperature Logging
- Humidity Type: Xytronix Model X-DTHS-WM wall mount sensor
- Humidity Range: 0-100% RH
- Accuracy: ±1.8%

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 or DHCP IP address configuration

Connectors

- Power: 3-Position, 3.81mm, Removable
- Relays & Inputs: 8-Position, 3.81mm, Removable
- Network: 8-pin RJ-45

LED Indicators

- Number of LEDs: 35
  - Power on
  - Relay coil energized 1-16
  - Digital inputs (1-16)
  - Network linked
  - Network activity

Physical

- Operating Temperature: -40°F to 150°F (-40°C to 65.5°C)
- Size:
  - 8.725in (221.6mm) wide
  - 1.815in (46.1mm) tall
  - 3.735in (94.9mm) deep (not including connector)
- Weight: 31.3 oz (887.3 grams) with connectors
- Material: Powder-Painted Steel

Protocols

- HTTP, XML, Modbus TCP/IP, 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

- Data Graphing
- BASIC interpreter
- Remote services

Password Settings

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

CONTROL by WEB™
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