

## PRODUCT OVERVIEW



The X-15s™ expansion module is used in conjunction with the X-600M controller. The X-15s has eight optically-isolated digital inputs. The isolated inputs are suitable for use in industrial environments and allow the grounding system of the monitored equipment and the low voltage circuits of the X-15s to be electrically separate.

Internally the X-15s has a co-processor which provides enhanced features including: pulse counting, pulse duration, accumulated pulse time and frequency measurements. All 8-inputs have separate measurements. Programmable de-bounce timers allow glitches and short pulses to be filtered out.

One or more X-15s 8-input expansion modules can be connected to a X-600M control module with a ribbon cable. The

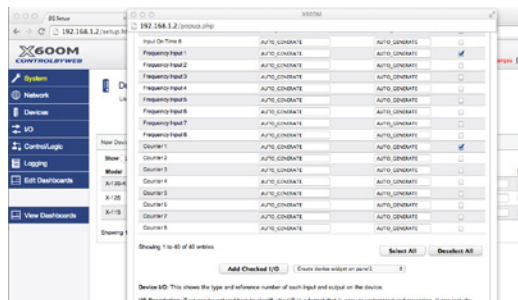
ribbon cable provides both power and communications.

The X-600M is a multifunction web-enabled industrial I/O controller. It performs control, logic, and monitoring functions similar to that of a Programmable Logic Controller (PLC). However, unlike a PLC, the X-600M is designed for web-based applications from the ground up. No add-on software or hardware is required.

The X-600M can be fully configured, programmed and tested using its built-in web server. The web setup pages are intuitive and easy to use and do not require special programming skills.

The X-600M together with the X-15s provide an easy, flexible and reliable way to monitor the state of sensors and devices over a network. The X-15s is suitable for use with security systems, freezer doors, light switches and water meters – anywhere where remote sensing is required.

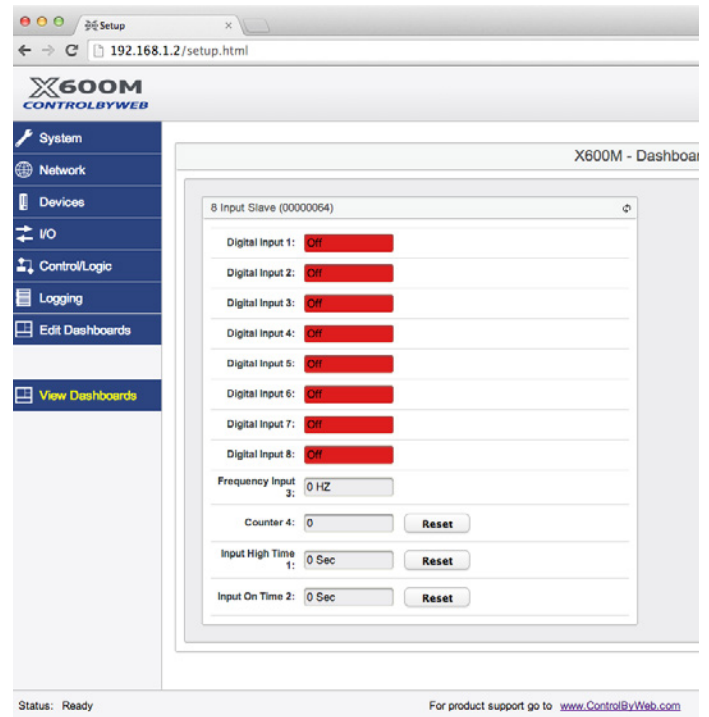
The X-15s' inputs can be used to trigger email alerts based on a single change of state or after a number of state changes. The inputs can also be used as counters, or can be used to control the relay contacts of other ControlByWeb™ products (such as WebRelay™) that are located at a remote location.



Adding the X-15s on the X-600M

## Features:

- 8 Optically-isolated digital inputs
- Digital input functions:
  - Pulse
  - Frequency
  - Timer
  - Count
- Eight LEDs for inputs 1-8
- Removable terminal connector
- Powered through expansion bus
- Great for monitoring applications including:
  - Button/Switch Inputs
    - Security Sensors
    - Flow Meters
    - Machine Status
    - and much more...



View X-15s components on the X-600M's Dashboard

## APPLICATIONS & SPECS

### Expansion Modules With The X-600M Controller



### Applications

- ✓ Security Sensors
- ✓ Flow Meters
- ✓ Machine Status
- ✓ More...

#### Models:

- X-15s

#### Power Requirements

- Voltage: 9-28 VDC (supplied via the X-600M controller, 24V recommended)
- Max Current: See table below for typical values at 25°C.

Power	Opto-couplers OFF	Opto-couplers ON
9 VDC	17 mA	88 mA
12 VDC	13 mA	66 mA
24 VDC	8 mA	36 mA

#### Digital Inputs

- Number of Inputs: 8
- Type: Optically-Isolated
- Voltage Range: 3-26VDC
- Current: 0.6mA @ 3V, 8.2mA @ 26V
- Minimum Hold Time: 2.5mS
- Input Isolation: 1500V
- Input Functions: Monitor State, Control Relays, Control Remote Relays, Count, Frequency, High Time, ON Time
- Maximum Count: 32-bit
- Max Count Rate: 200Hz
- Edge Trigger: Rising, Falling or Both
- High Time: Pulse width (4,194,304 seconds max)
- On Time: Accumulated time an input is asserted (4,194,304 seconds max)
- Frequency: 1Hz min, 200 Hz max

#### Connectors

- Inputs: 12-Position, 3.81mm, Removable
- Expansion Connector: Ribbon cable, 10-conductor, polarized, 2x5-position, 0.100" pitch Provides power and communications for expansion modules (Communications: RS-485)

#### LED Indicators

- Number of LEDs: 9
  - Power on
  - Digital Inputs 1-8

#### Physical

- Size:
  - 1.41in (35.7mm) wide
  - 3.88in (98.5mm) tall
  - 3.1in (78mm) deep (not including connector)
- Weight: 4.8 oz (136 g)
- Enclosure Material: Lexan 940 Polycarbonate Plastic
- Enclosure Flame Rating: UL94 V0

#### Environmental

- Operating Temperature: -40°F to 150°F (-40°C to 65.5°C)
- Storage Temperature: -40°F to 185°F (-40°C to 85°C)
- Humidity: 5-95%, non-condensing
- Altitude: Up to 2,000m
- Indoor use or NEMA-4 protected location

#### Electromagnetic Compliance

- IEC CISPR 22, CISPR 24
- FCC 47CFR15 (Class B)
- EN55024 ITE Immunity (2010)
- EN55022 Emissions (2010)

#### Product Safety Compliance

- UL 61010-1 (Electrical Equipment for Measurement, Control, and Laboratory Use)