PRODUCT OVERVIEW



The X-16s™ expansion module is used in conjunction with the X-600M™ controller. The X-16s has eight, 0-5V, analog inputs. The X-16s employs a 24-bit A/D converter and can make both single or differential voltage measurements. A 5.0V reference output can be used to power potentiometers or other resistance sensing sensors.

The X-16s is ideal for measuring precision analog voltages in industrial environments. One or more X-16s 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.

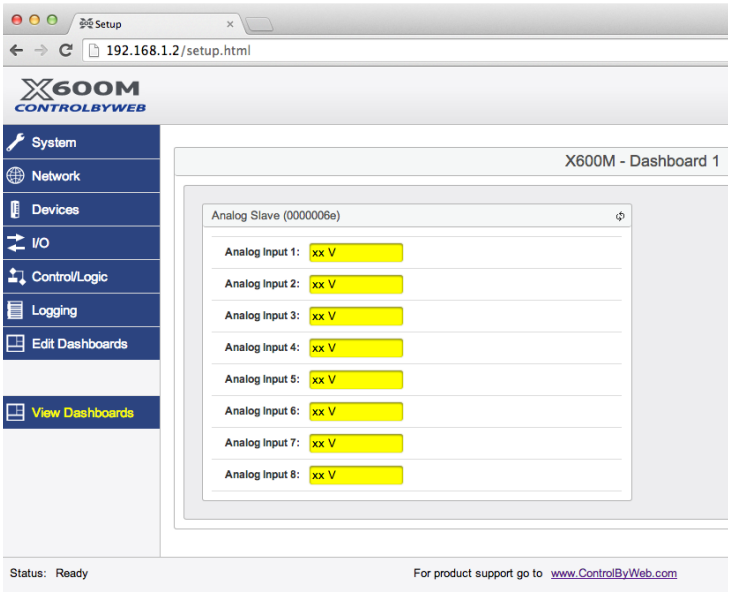
The X-600M can be fully configured, programmed and tested using its built-in web server. The web setup pages are intuitive and easy to use and do not require special programming skills.

The X-600M together with the X-16s provide an easy, flexible and reliable way to monitor sensors and devices over a network. The X-16s is suitable for use with pressure sensors, flow meters, current transducers and position sensors – anywhere where precision analog voltage sensing is required.

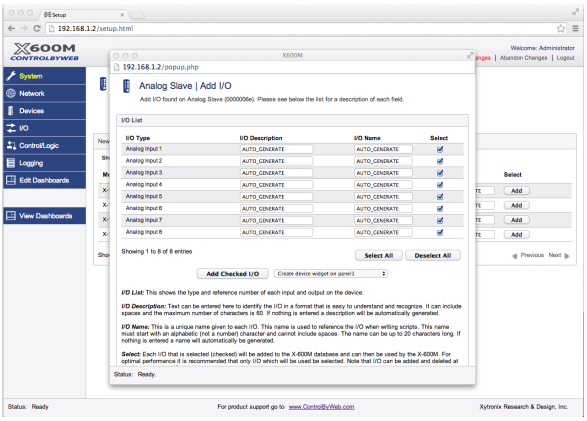
The X-16s' inputs can be used to trigger email alerts based on a voltage level and can be used to control the relay contacts of other ControlByWeb™ products (such as WebRelay™) that are located at a remote location.

Features:

- Eight, 0-5V precision analog inputs
- Removable terminal connector
- Powered through expansion bus
- Great for monitoring applications including:
  - Temperature
  - Electrical Current
  - Pressure
  - Fluid Levels
  - and much more...



View X-16s components on the X-600M's Dashboard

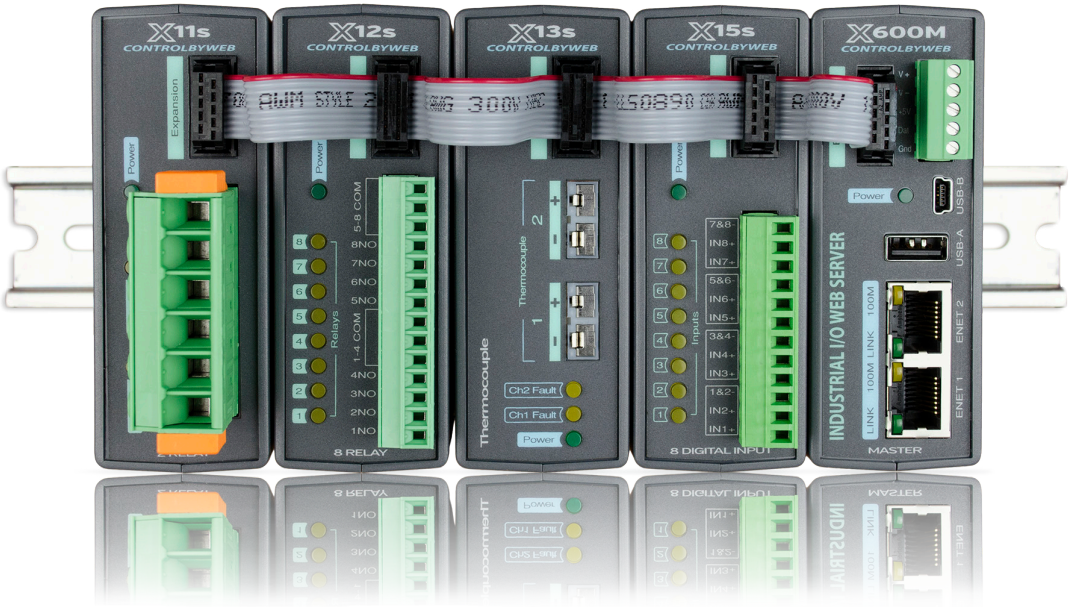


Adding the X-16s on the X-600M

Applications

- ✓ **Temperature**
- ✓ **Electrical Current**
- ✓ **Pressure**
- ✓ **Fluid Levels**
- ✓ **More...**

Expansion Modules With The X-600M Controller



Models:

- X-16s

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	Current
9 VDC	40 mA
12 VDC	30 mA
24 VDC	18 mA

Analog Inputs

- Number of Inputs: 8
- Type: 8 single-ended, 4-differential, or a combination
- Input Range: -0.1V (min), 5.1V (max), all channels
- **Note that inputs have high impedance so input range can easily be adjusted using external resistors. Example: 0 to 10 Volt or 4-20mA
- Resolution: 10µV (24 bit ΣΔ ADC)
- Reference: 5.00V, 0.04%, 3ppm/C, 25mA Max

Connectors

- Inputs: 14-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: 1
  - Power on

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: E4683-A116 61010-1 3rd Edition
- CSA: C22.2 No. 61010-1-12 3rd Edition
- CCN: QUYX, QUYX7 (Process Control Equipment, Electrical)

CE