PRODUCT OVERVIEW



The X-20s™ expansion module is used with the X-600M controller. The X-20s has six, high-current relays, each with Form-C contacts (SPDT) and six, optically-isolated digital inputs. A screw terminal strip provides high-current connections to the relays.

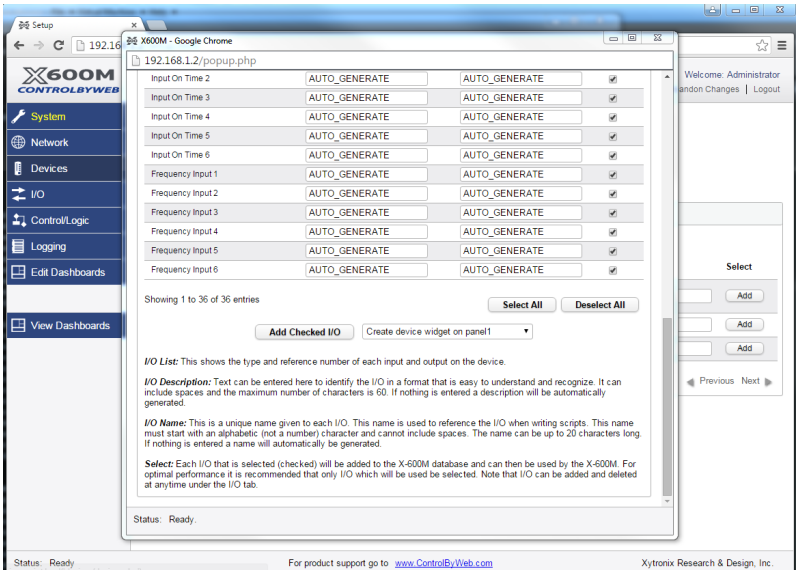
The X-20s is suitable for use with controlling relatively heavy loads such as motors, solenoid valves, and lights. Switches can be connected to the X-20s' digital inputs to locally control these loads. The digital inputs can also be used for other monitoring applications such as limit switches, security sensors, or light switches.

Since the X-20s functions as a slave device to the X-600M, the advanced features of the X-600M can be utilized with this module. For example scheduling, remote relay control, logging, counting, email alerts based upon single input state change or multiple input state changes, and many other features are available.

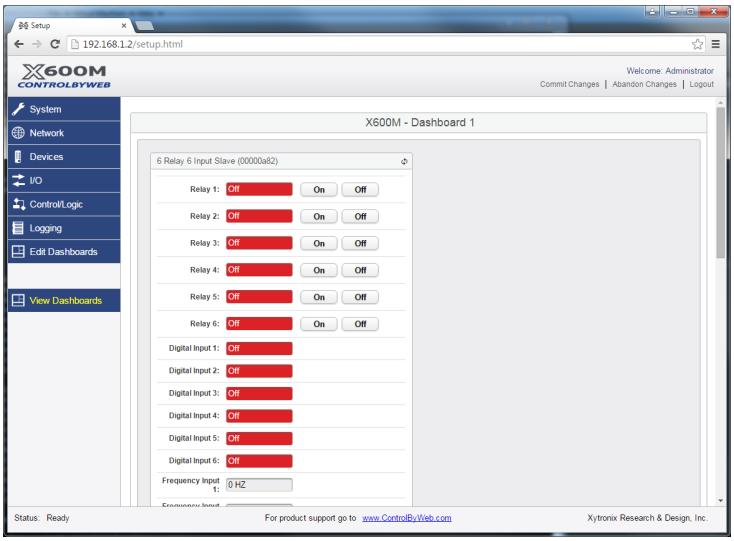
Attach multiple X-20s modules or a combination of expansion modules to the X-600M for an I/O combination that is tailored to your specific needs.

Features:

- 6 isolated relays SPDT
- Relay functions: ON/OFF or Pulse
- Great for heavy-load applications including:
  - Motors
  - Solenoid valves
  - Lights
  - and much more ...
- Thermoplastic, UL94V-0, 3-wall, 0.375" pitch
- 6 optically-isolated digital inputs
- Digital input functions:
  - Monitor State
  - Control Relays
  - Control Remote Relays
  - Count
  - Frequency
  - High Time
  - ON Time
- 13 LEDs for outputs, inputs, and power
- Power Supply: 9-28 VDC (24V recommended)



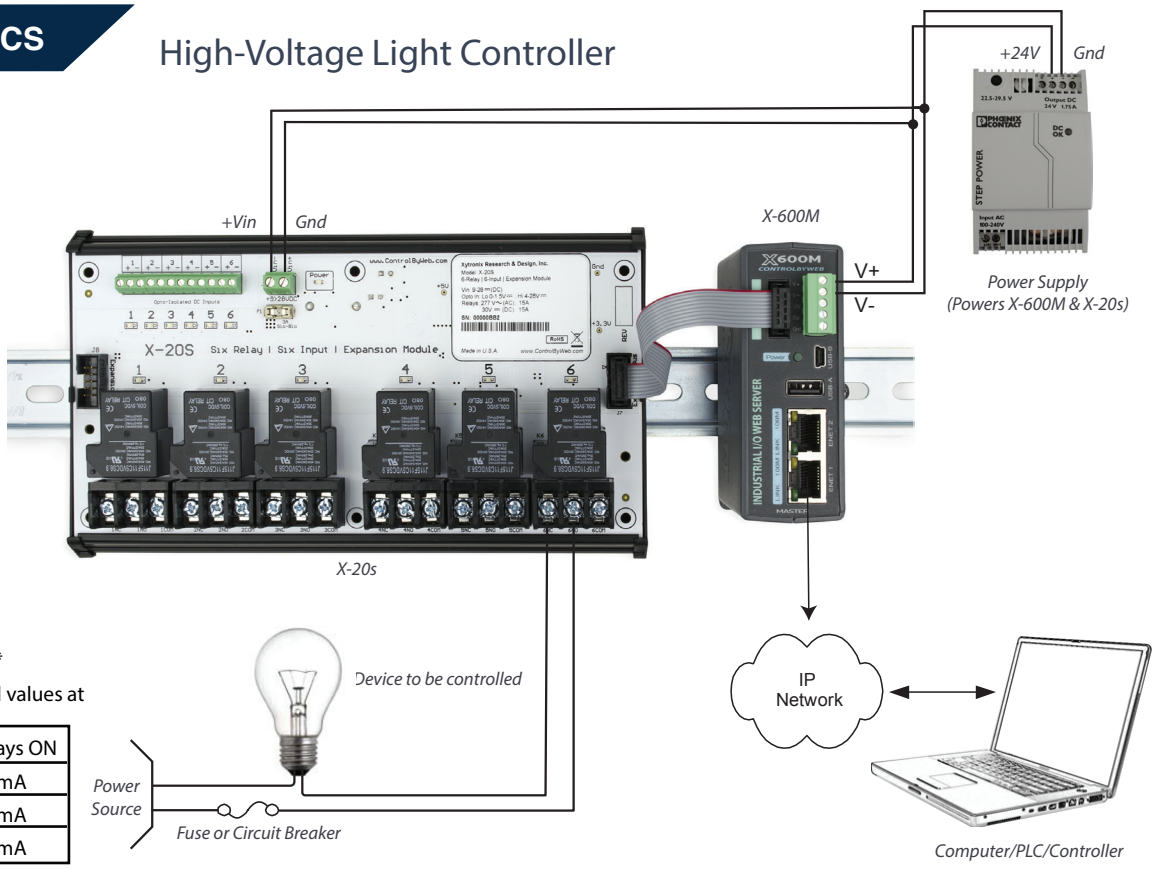
Adding the X-20s on the X-600M



View X-20s components on the X-600M's Dashboard

APPLICATIONS & SPECS

High-Voltage Light Controller



Models:

- X-20s

Power Requirements

- Voltage: 9-28 VDC (24V recommended)*
- Max Current: See table below for typical values at 25°C.

Power Supply	All Relays OFF	All Relays ON
9 VDC	20 mA	750 mA
12 VDC	16 mA	555 mA
24 VDC	12 mA	285 mA

Relay Contacts

- Number of Relays: 6
- Max Voltage: 277VAC, 30VDC
- Max Current: 15A
- Contact Type: SPDT
- Load Type: General Purpose
- Contact Resistance: < 30 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 Pulse
- Pulse Timer Duration: 0.1 to 86,400 Seconds (1-day)

Digital Inputs

- Number of Inputs: 6
- Type: Optically-Isolated
- Voltage Range: 4-28VDC
- Vin Hi (Min): 4V
- Vin LO (Max): 1.5V
- Current: 950uA @ 4V, 8.5mA @ 26V
- Minimum Hold Time: 2.5ms
- Input Isolation: 1500V
- Input Functions: Asynchronous status of the digital inputs
- Number of Counter Inputs: 6
- Maximum Count: 32-bit
- Max Count Rate: 200 Hz
- Edge Trigger: Rising, Falling or Both
- Frequency: 1Hz min, 200 Hz max
- High Time: Pulse width (4,194,304 seconds max)
- On Time: Accumulated time an input is asserted (4,194,304 seconds max)

Connectors

- Expansion Connector: Ribbon cable, 2x5-position, polarized 0.100" pitch
- Relays: Thermoplastic, UL94V-0, 3-wall, 0.375" pitch
- Inputs: PCB terminal block, screw connection, 3.81mm pitch

LED Indicators

- Number of LEDs: 13
  - Power on
  - Relays 1-6
  - Digital Inputs 1-6

Physical

- Size:
  - 8.60in (218.44mm) wide
  - 4.95in (125.73mm) tall
  - 2.16in (54.86mm) deep
- Weight: 17 oz (474 g)
- Enclosure Material: PVC
- Enclosure Flame Rating: UL94 V1

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: E468316 61010-1 3rd Edition
- CSA: C22.2 No. 61010-1-12 3rd Edition
- CCN: QUYX, QUYX7 (Process Control Equipment, Electrical)

CE