

Form 1047-080710

| Part Number    | Description                              |
|----------------|--|
| SNAP-LCSX      | Opto 22 SNAP Controller with 2 COM ports |
| SNAP-LCSX-PLUS | Opto 22 SNAP Controller with 4 COM ports |

### Description

The SNAP-LCSX and SNAP-LCSX-PLUS controllers are the cost-effective answer to applications requiring small, powerful, real-time industrial control. These compact members of a field-tested and time-proven family of controllers offer tight integration with Opto 22's successful SNAP I/O™ line of intelligent, industrial input/output systems and the Opto 22 FactoryFloor® software suite for industrial automation. At one-third the price and one-sixth the footprint of previous controllers, the SNAP-LCSX and LCSX-PLUS deliver on-the-spot control for distributed automation.

The two controllers have identical dimensions and share similar features, such as a single 5-volt power requirement and both DIN rail and panel mounting options. Both contain powerful 32-bit processors capable of a wide range of computing functions. SNAP-LCSX provides two COM ports and SNAP-LCSX-PLUS provides four. For simplification, the LCSX-PLUS is shown in most of the diagrams in this data sheet. Both the SNAP-LCSX and the SNAP-LCSX-PLUS are Factory Mutual approved.

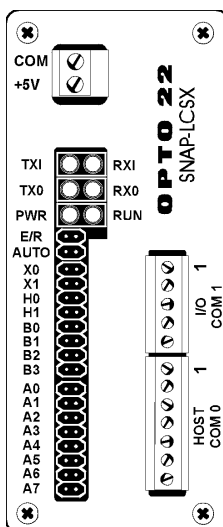
### Software

The SNAP-LCSX and LCSX-PLUS controllers are designed to work in combination with FactoryFloor, Opto 22's suite of Windows 32-bit software. FactoryFloor consists of four integrated components:

- OptoControl™, a graphical, flowchart-based development environment for machine control and process applications
- OptoDisplay™, an intuitive, shared database, HMI and trending package
- OptoServer™, a robust, OPC-compliant data server that connects the controller network with the PC network
- OptoConnect™, a bidirectional link between the SNAP controller database and Microsoft's SQL Server and Access databases.

SNAP-LCSX and LCSX-PLUS are configured and developed using OptoControl on a PC workstation. OptoControl is an easy

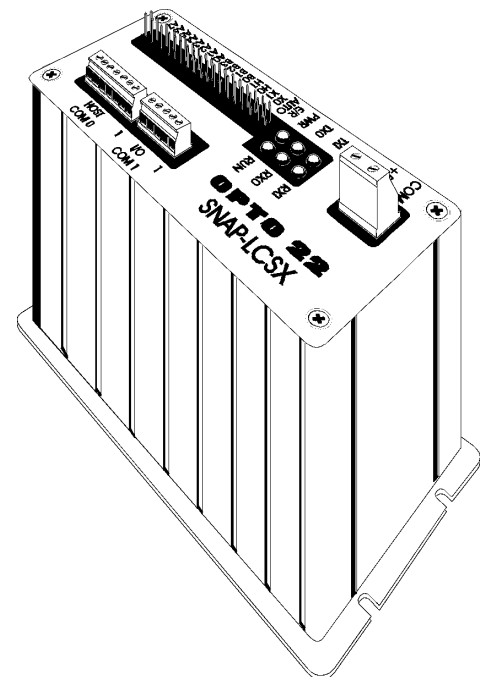
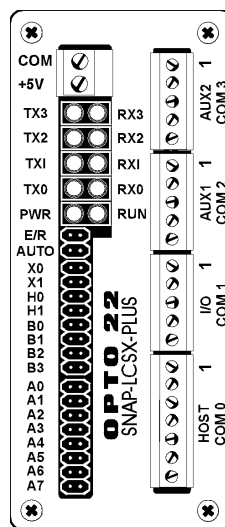
SNAP-LCSX



The SNAP-LCSX has two COM ports.

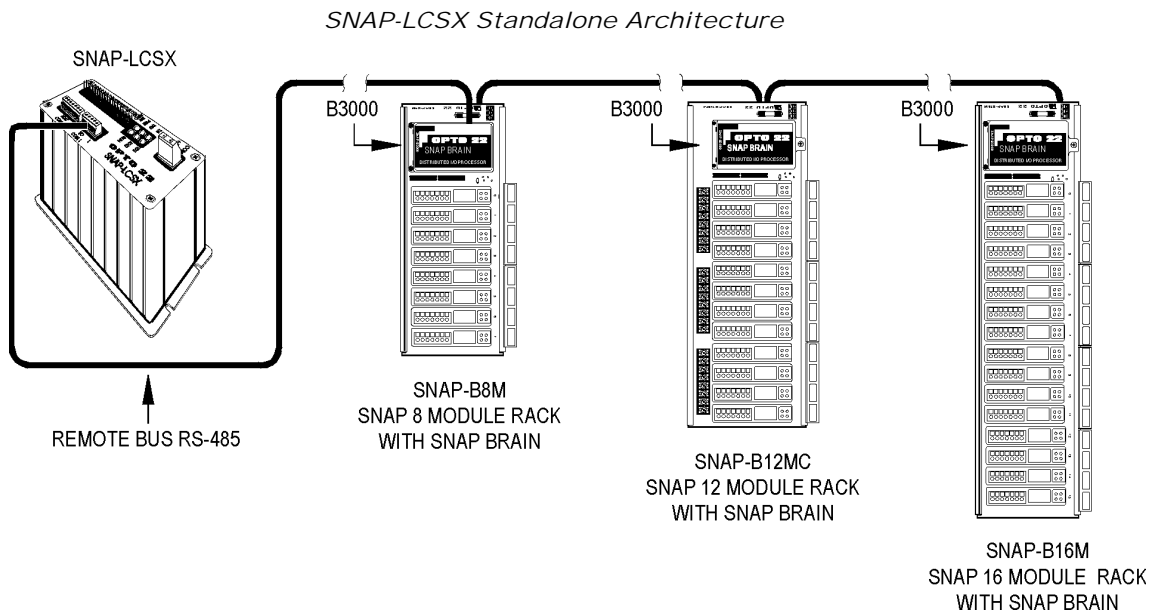
The SNAP-LCSX-PLUS has four COM ports.

SNAP-LCSX-PLUS



Form 1047-080710

### Description (Continued)



to use, self-documenting control environment that uses a plain English command set and a long tagname database shared by all FactoryFloor components. SNAP-LCSX and LCSX-PLUS also work with Opto 22's Classic 16-bit software: Cyrano, Mistic MMI, and Mistic Data Server (MDS).

#### Communication Options (Standard)

Serial ports are top-mounted on the controller and feature removable European-style screw terminals.

The SNAP-LCSX has the following communication ports:

- One RS-232 or RS-485 serial port (2-wire or 4-wire), up to 115.2kBd
- One dedicated Opto 22 remote I/O port (2-wire RS-485 with interrupt capability)

The LCSX-PLUS includes two additional communication ports, RS-232 or RS-485 (2-wire or 4-wire).

#### Interface Options (Adapter Cards)

The SNAP-LCSX and SX-PLUS are not expandable.

#### I/O Connectivity

The RS-485 ports can be used as a serial link to communicate with remote digital and analog I/O units. Up to 4,096 I/O points can be connected to each communication port.

#### Memory Expansion Options

The RAM is used to store a user's control strategy (program) and data. The flash memory (ROM) stores a kernel (operating system) and can be used to store a control strategy permanently. The use of flash technology allows the user to remotely download new firmware offered by Opto 22.

- RAM: 1M, not expandable
- ROM: 256K, not expandable

#### Power Supplies

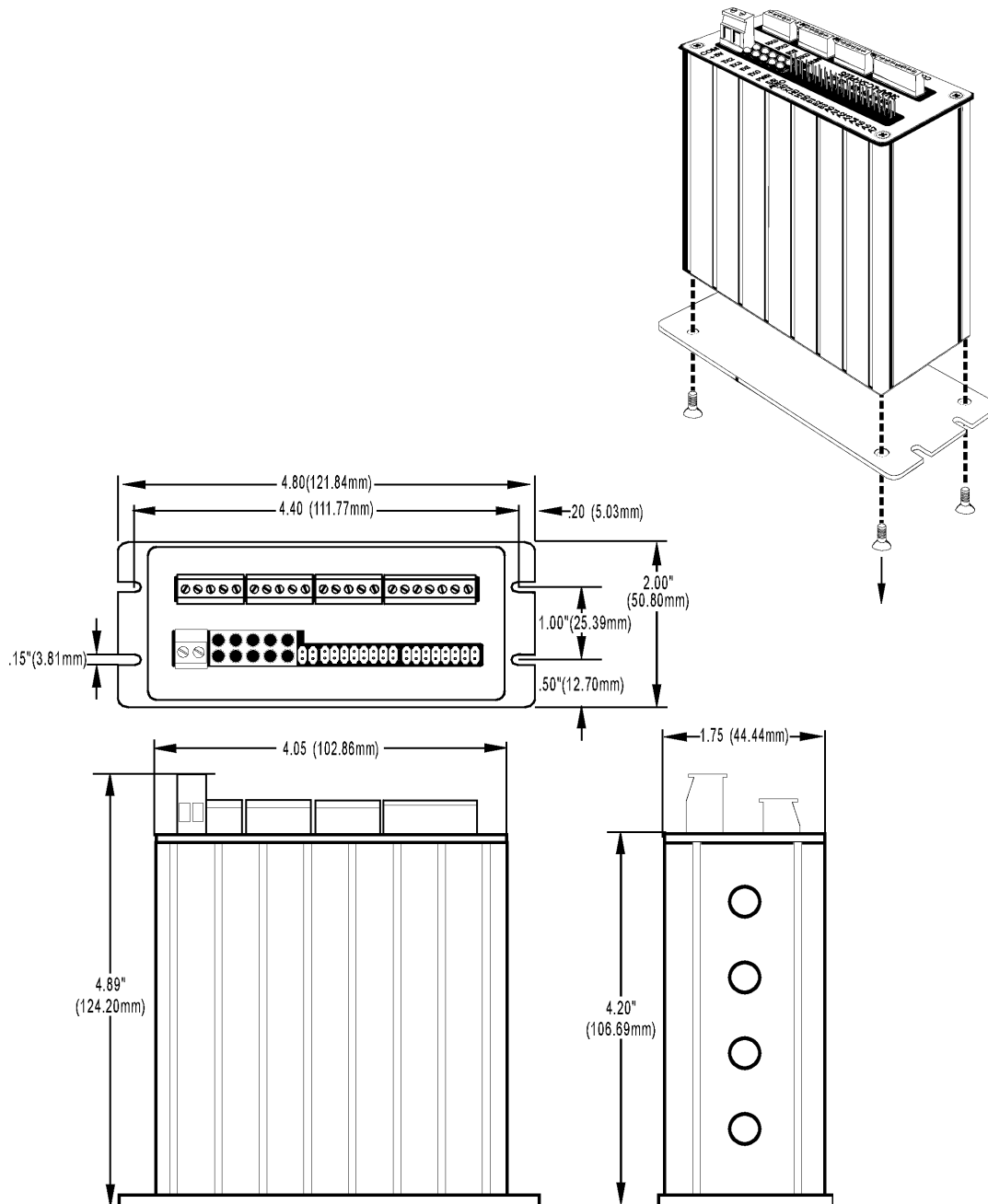
A 5VDC power supply is required. The Opto 22 SNAP PS5 power supply can provide sufficient power for the controller, a B3000 brain, 32 digital I/O points, and up to 8 analog I/O points.

### Specifications

| Item                          | Specification   |
|-------------------------------|---|
| CPU                           | 32-bit Motorola 68EC020 processor   |
| CPU clock frequency           | 16.67 MHz   |
| Memory<br>RAM<br>Flash ROM    | 1 MB with battery backup<br>256 KB  |
| RAM/clock battery             | 3.6-volt lithium, non-rechargeable, user replaceable, p/n G4BATT32  |
| I/O                           | Opto 22 remote I/O using RS-485   |
| Communication                 | <p><b>COM 0:</b> jumper selectable as RS-232 or RS-485, 2-wire or 4-wire. Modem control signals are present for RS-232 (RTS, CTS, DTR, DCD, and RI). Pull-up, pull-down, and termination are jumper selectable for RS-485 operation, allowing multidrop operation.</p> <p><b>COM 1:</b> dedicated Opto 22 remote I/O port (2-wire RS-485 with interrupt capability)</p> <p><b>COM 2 and COM 3 (LCSX-PLUS only):</b> jumper selectable RS-232 or RS-485. RS-232 signals include TX, RX, RTS, and CTS. RS-485 is either 2-wire or 4-wire, with selectable termination and biasing.</p> <p><b>Note:</b> All ports use low-noise slew-rate-limited drivers and are transient protected to 400W.</p> |
| Real-time clock               | Clock/calendar, Epson 64613 with battery backup   |
| Power requirements            | 5VDC +/- 5% at 500 mA (maximum)   |
| Typical operating temperature | 0° C to 70° C   |
| Storage temperature           | -40° C to 85° C   |
| Humidity                      | 5% to 95% relative humidity, non-condensing   |
| Software                      | FactoryFloor (OptoControl, OptoDisplay, OptoServer, and OptoConnect) and Classic software (Cyrano, Mystic MMI, and MDS)   |
| System monitor                | Processor and power watchdog timers   |

Form 1047-080710

### Panel Mounting and Dimensions



Form 1047-080710

### Din Rail Mounting and Dimensions

