

# SNAP Serial Communication Modules

## Features

- SNAP-SCM-232: Two RS-232 serial ports with optional RTS/CTS flow control
- SNAP-SCM-485-422: Two RS-485 2-wire serial ports or one RS-485/422 4-wire serial port
- Individually isolated ports
- Baud rates to 115 K Baud
- Connection accessories provided
- Works with the SNAP PAC System
- Up to eight serial modules per rack
- 30-month warranty

## Description

The SNAP-SCM-232 and SNAP-SCM-485-422 serial communication modules are part of the SNAP PAC System. They conveniently provide two channels of serial data at a remote Ethernet location.

Many applications require digital, analog, and serial data to provide a complete solution. Traditionally, either separate serial network cabling is required for the serial devices, or an expensive data processor or PC must be used just to interface with the serial devices.

SNAP serial communication modules eliminate this problem by providing two channels of high-speed, isolated serial communications packaged in the compact SNAP module form.

- The **SNAP-SCM-232** interfaces to auxiliary serial equipment via two RJ-45 plug-in data connectors, providing two RS-232 serial ports. The module also supports optional RTS/CTS flow control.
- The **SNAP-SCM-485-422** uses the standard SNAP removable top-mounted connector for easy wiring of two 2-wire RS-485 ports or one 4-wire RS-485/422 port. The module has convenient top switches for termination and bias.

LED indicators are provided on each module to indicate Transmit and Receive on each port.

Both SNAP serial communication modules work with SNAP PAC Ethernet-based brains and rack-mounted controllers. (They do not work with serial-based SNAP PAC brains.) These modules snap into Opto 22 SNAP PAC mounting racks right beside digital and analog



**SNAP Serial Communication Modules**

modules, to provide the mix of analog, digital, and serial channels you need at any location.

Typical applications include interfacing with printers, scales, chart recorders, and barcode systems. Using the SNAP-SCM-232 or SNAP-SCM-485-422 as a converter, these non-Ethernet devices can be connected to an Ethernet network and be available for control, monitoring, or data acquisition by any authorized PC or other device on the network.

With the SNAP-SCM-232, a short (12-inch), unshielded twisted-pair cable and both male and female RJ-45 to DB-9 adapters are included for easy connection to all types of RS-232 devices.

For details on using these modules, see Opto 22 form #1191, the *SNAP Serial Communication Module User's Guide*.

**Notes for legacy hardware:** These SNAP serial communication modules can also be used with SNAP Simple, SNAP Ethernet, and SNAP Ultimate brains on an M-series or B-series rack. SNAP-SCM-232 modules offering RTS/CTS flow control were manufactured in June 2003 or more recently and require I/O processor firmware version 5.0 or newer. The SNAP-SCM-485-422 also requires firmware 5.0 or newer. An older module part number, SNAP-SCM-485, supported 2-wire RS-485 only.

## Part Numbers

Part	Description
SNAP-SCM-232	Two-channel RS-232 serial communication module
SNAP-SCM-485-422	Two-channel RS-485 (two-wire) or single-channel RS-485/422 (four-wire) serial communication module

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## Specifications

Baud rates	300–115,200
Channel-to-channel isolation	750 V <sub>RMS</sub>
Logic supply voltage	5.0 VDC
Logic supply current	250 mA DC
Number of ports per module	2 (1 on SNAP-SCM-485-422 in 4-wire mode)
Max. number of modules per rack	8
Maximum cable length, point-to-point (SNAP-SCM-232)	50 feet
Maximum cable length, multidrop (SNAP-SCM-485-422)	1,000 feet at 115,200 Kbd
Operating temperature	0 to 70 °C
Storage temperature	-30 to 85 °C

LED	Indicates
1	TX port A
2	TX port B
3	RX port A
4	RX port

# SNAP Serial Communication Modules

## Dimensions

### SNAP-SCM-485-422 Serial Communication Module

