

SNAP-SCM-PROFI Communication Module

Features

- > Single isolated port with built-in DB-9 connector
- > Baud rates to 1.5 Mbaud
- > Works with the SNAP PAC System
- > Up to eight SNAP-SCM-PROFI modules per rack
- > 30-month warranty

DESCRIPTION

The SNAP-SCM-PROFI module is a high-speed serial communications module that provides a standard electrical interface between Opto 22's Ethernet-based SNAP PAC System and PROFIBUS DP® networks.

The SNAP-SCM-PROFI module is designed for use with Opto 22's SNAP PAC R-series controllers and SNAP PAC EB brains, both the standard wired models and the Wired+Wireless™ models.

The SNAP-SCM-PROFI module snaps into Opto 22 SNAP PAC mounting racks, right beside other SNAP I/O modules, to provide the mix of analog, digital, and serial channels you need at any location. LEDs indicate Transmit and Receive activity on the port, as well as power and operation status.

SNAP racks have a retention rail locking system. Use two 4-40 by ½-inch standard machine screws to hold each module securely in position on the SNAP rack.

In order to facilitate system integration using a SNAP-SCM-PROFI module with a SNAP PAC controller using PAC Project software, Opto 22 provides PROFIBUS DP Master Software. For more information, see Opto 22 form #1591, the *PROFIBUS DP Master Technical Note*.



SNAP-SCM-PROFI Module

Part Number

Part	Description
SNAP-SCM-PROFI	Serial communications module that provides an electrical interface to PROFIBUS DP® networks.

SPECIFICATIONS

Baud rates	9600 to 1.5 MBaud*
Channel-to-channel isolation	750 Vrms
Logic supply voltage	5.0 VDC
Logic supply current	250 mA
Number of ports per module	1
Maximum number of modules per rack*	8
Processor compatibility	SNAP PAC R-series controllers and SNAP PAC EB brains, both standard wired and Wired+Wireless models. Also SNAP-B3000-ENET, SNAP-ENET-RTC, SNAP-ENET-S64, SNAP-UP1-ADS, and SNAP-UP1-M64.
Processor firmware	Firmware 6.1c or newer required
Operating temperature	-20 to 70 °C
Storage temperature	-30 to 85 °C
Torque, hold-down screws	Not to exceed 1 in-lb (0.11 N-m)
Torque, connector screws	5.22 in-lb (0.59 N-m)
Agency Approvals	CE, RoHS, DFARS
Warranty	30 months

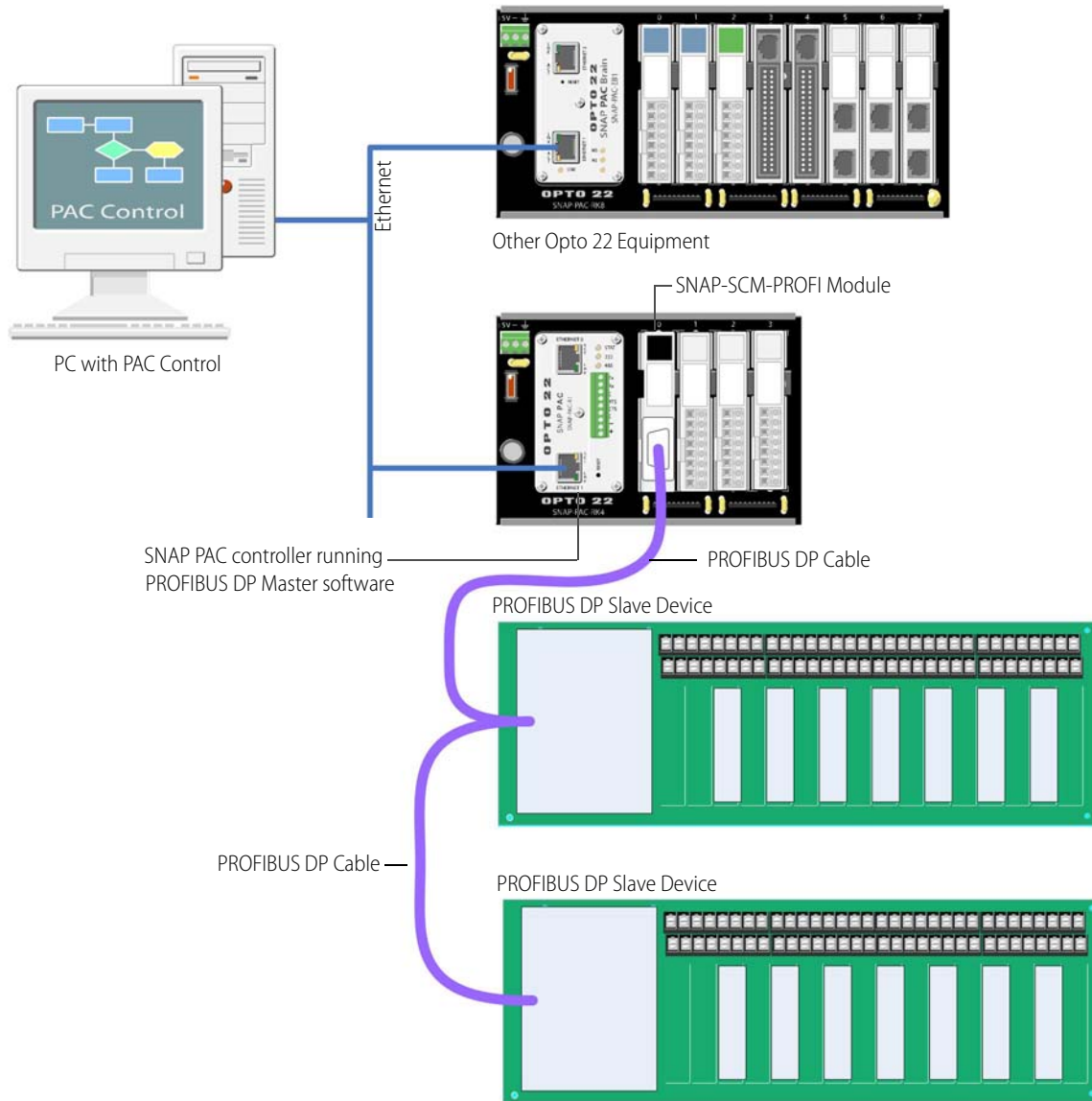
* Maximum number of modules per rack assumes a 4A power supply (for example, SNAP-PS5). Each rack backplane provides approximately 2.5 Mbps of bandwidth.

** With Opto 22 SNAP power supply and SNAP rack

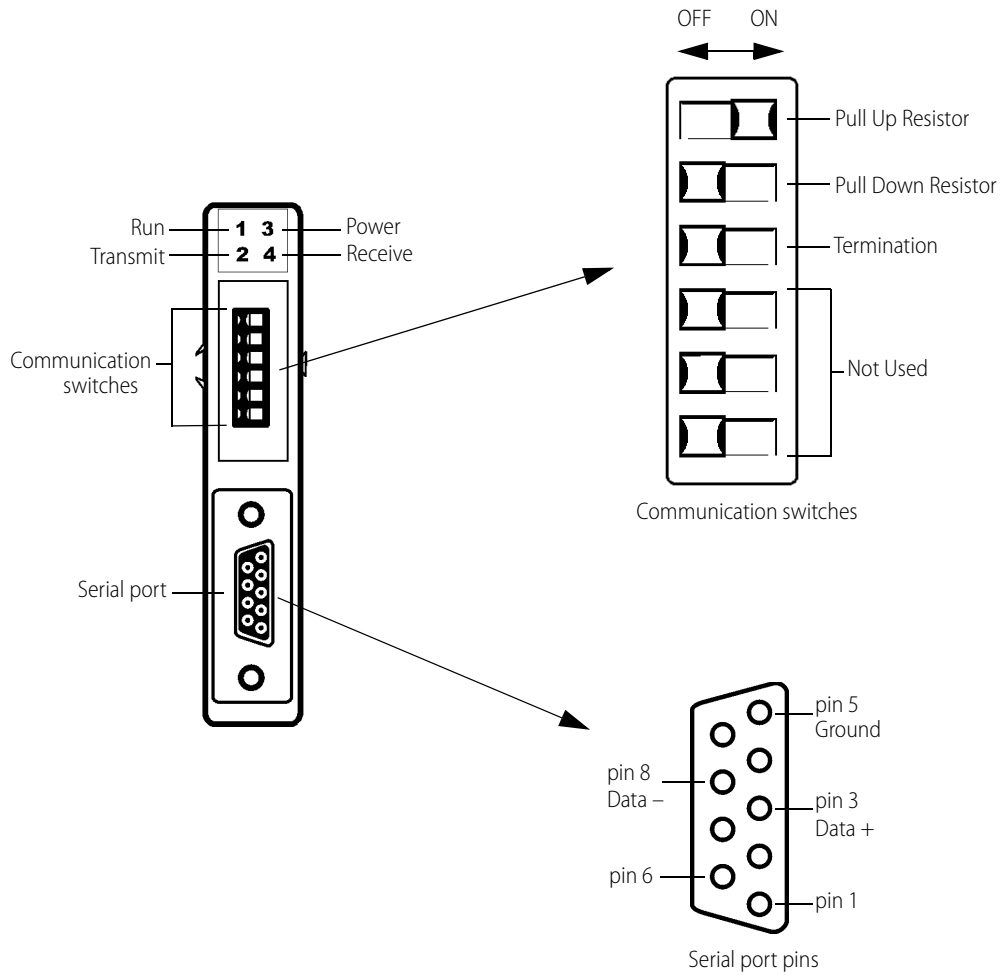
LEDs

LED	Indicates
1	RUN
2	TRANSMIT
3	POWER
4	RECEIVE

SYSTEM ARCHITECTURE, PROFIBUS DP MASTER

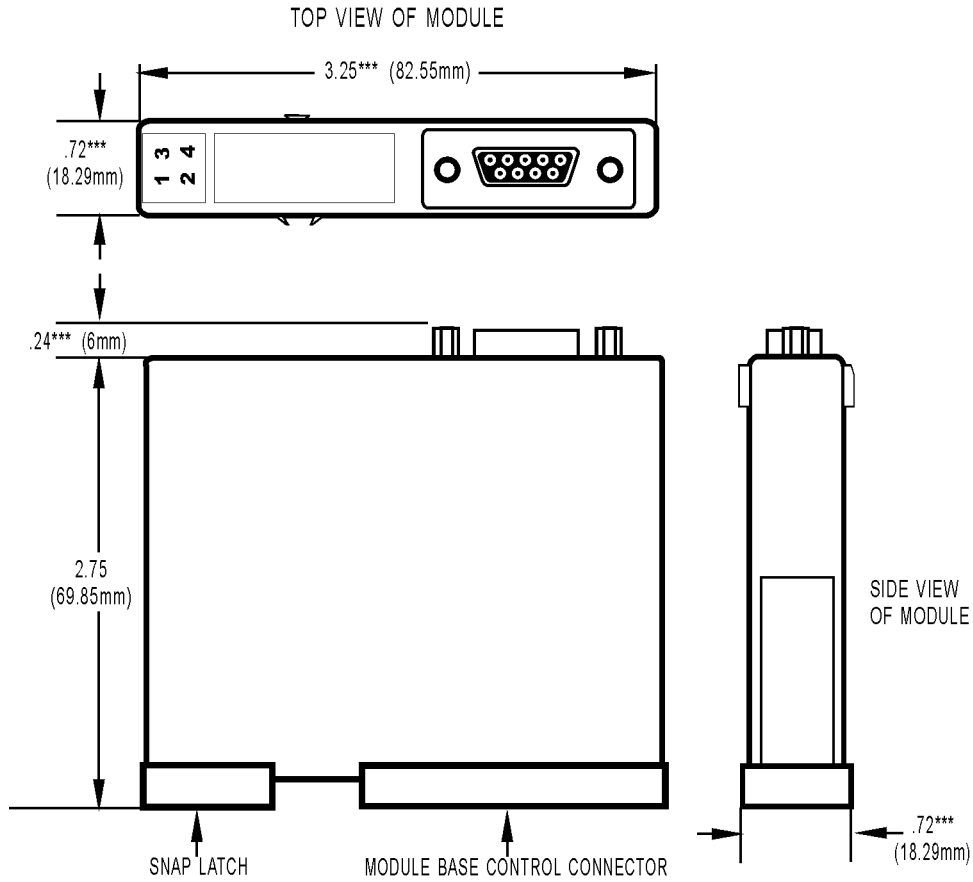


WIRING



The SNAP-SCM-PROFI module is designed to work with either a standard PROFIBUS DP[®] cable or a custom-built PROFIBUS DP cable. For information on setting the communication switches, see the *SNAP Serial Communication Module User's Guide*, Opto form #1191.

DIMENSIONS



TOLERANCES LEGEND
 * +/- .010" ** +/- .020"
 *** +/- .030" **** +/- .060"
 NO * REFERENCE ONLY

PRODUCTS

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products. Industrial automation, process control, remote monitoring, data acquisition, and industrial internet of things (IIoT) applications worldwide all rely on Opto 22.

groov RIO®

groov RIO edge I/O offers a single, compact, PoE-powered industrial package with web-based configuration and IIoT software built in, support for multiple OT and IT protocols, and security features like a device firewall, data encryption, and user account control.

Standing alone, groov RIO connects to sensors, equipment, and legacy systems, collecting and securely publishing data from field to cloud. Choose a universal I/O model with thousands of possible field I/O configurations, with or without Ignition from Inductive Automation®, or a RIO EMU energy monitoring unit that reports 64 energy data values from 3-phase loads up to 600 VAC, Delta or Wye.

You can also use groov RIO with a Modbus/TCP master or as remote I/O for a groov EPIC system.

groov EPIC® System

Opto 22's groov Edge Programmable Industrial Controller (EPIC) system gives you industrially hardened control with a flexible Linux®-based processor with gateway functions, guaranteed-for-life I/O, and software for your automation and IIoT applications.

groov EPIC Processor

The heart of the system is the groov EPIC processor. It handles a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

In addition, the EPIC provides secure data communications among physical assets, control systems, software applications, and online services, both on premises and in the cloud. No industrial PC needed.

Configuring and troubleshooting I/O and networking is easier with the EPIC's integrated high-resolution color touchscreen. Authorized users can manage the system locally on the touchscreen, on a monitor connected via the HDMI or USB ports, or on a PC or mobile device with a web browser.

groov EPIC I/O

groov I/O connects locally to sensors and equipment. Modules have a spring-clamp terminal strip, integrated wireway, swing-away cover, and LEDs indicating module health and discrete channel status. groov I/O is hot swappable, UL Hazardous Locations approved, and ATEX compliant.

groov EPIC Software

The groov EPIC processor comes ready to run the software you need:

- Programming: Choose flowchart-based PAC Control, CODESYS Development System for IEC61131-3 compliant programs, or secure shell access (SSH) to the Linux OS for custom applications
- Node-RED for creating simple IIoT logic flows from pre-built nodes
- Efficient MQTT data communications with string or Sparkplug data formats
- Multiple OPC UA server options
- HMI: groov View to build your own HMI viewable on touchscreen, PCs, and mobile devices; PAC Display for a

Windows HMI; Node-RED dashboard UI

- Ignition or Ignition Edge® from Inductive Automation (requires license purchase) with OPC-UA drivers to Allen-Bradley®, Siemens®, and other control systems, and MQTT communications

Older products

From solid state relays, to world-famous G4 and SNAP I/O, to SNAP PAC controllers, older Opto 22 products are still supported and working hard at thousands of installations worldwide. You can count on us for the reliability and service you expect, now and in the future.

QUALITY

Founded in 1974, Opto 22 has established a worldwide reputation for high-quality products. All are made in the U.S.A. at our manufacturing facility in Temecula, California.

Because we test each product twice before it leaves our factory rather than testing a sample of each batch, we can afford to guarantee most solid-state relays and optically isolated I/O modules for life.

FREE PRODUCT SUPPORT

Opto 22's California-based Product Support Group offers free technical support for Opto 22 products from engineers with decades of training and experience. Support is available in English and Spanish by phone or email, Monday–Friday, 7 a.m. to 5 p.m. PST.

Support is always available on our website, including [free online training](#) at OptoU, how-to [videos](#), [user's guides](#), the Opto 22 KnowledgeBase, and [OptoForums](#).

PURCHASING OPTO 22 PRODUCTS

Opto 22 products are sold directly and through a worldwide network of distributors, partners, and system integrators. For more information, contact Opto 22 headquarters at **800-321-6786** (toll-free in the U.S. and Canada) or **+1-951-695-3000**, or visit our website at www.opto22.com.

