

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.

SNAP-SCM-PROFI Communication Module

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	4 in-lb (0.45 N-m)
Torque, connector screws	5.26 in-lb (0.6 N-m)
Agency Approvals	CE, RoHS, DFARS
Warranty	30 months

* Module performance is limited by the number of serial modules on the SNAP rack. Each rack backplane provides approximately 2.5 Mbps of bandwidth.

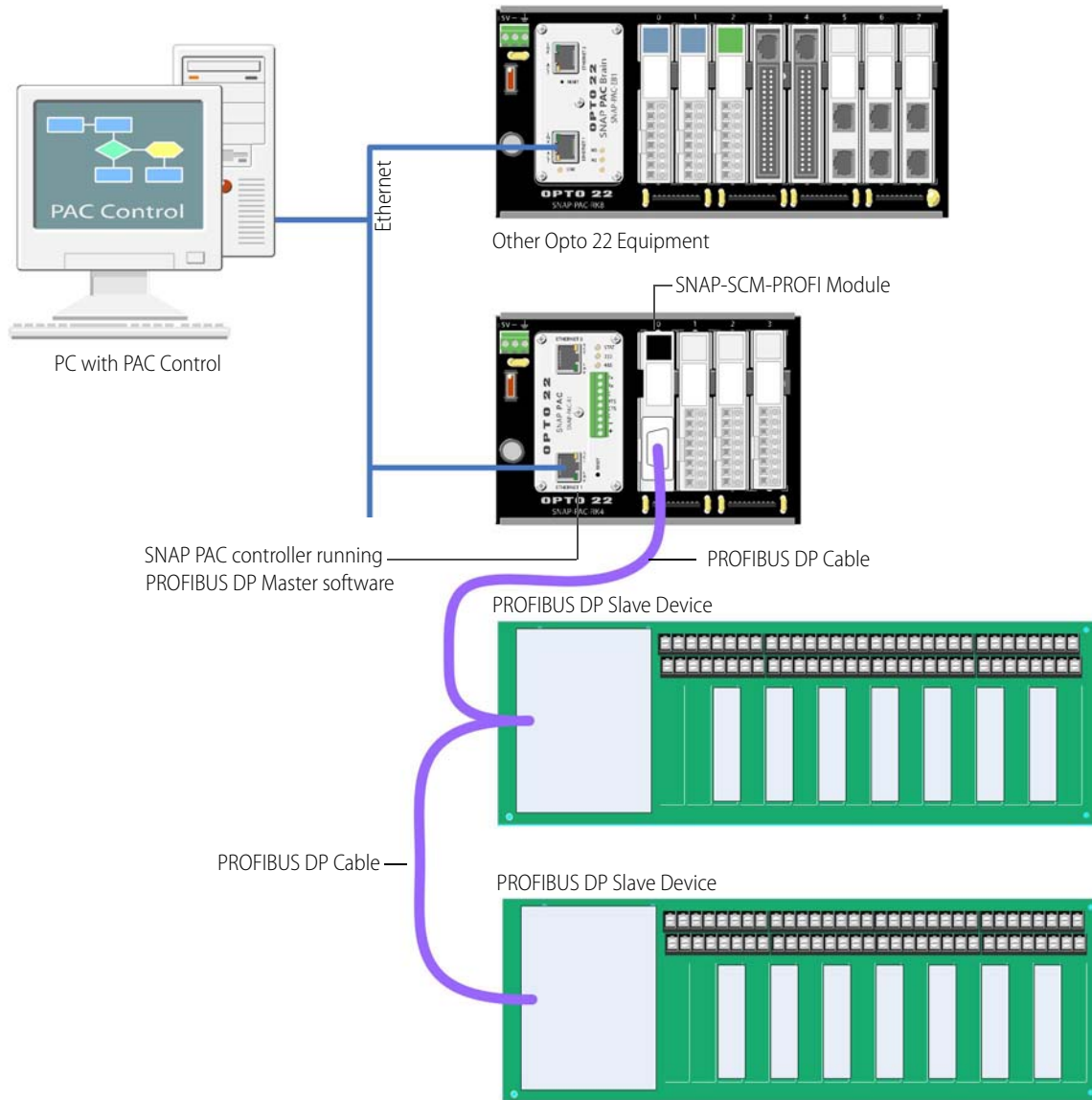
** With Opto 22 SNAP power supply and SNAP rack

LEDs

LED	Indicates
1	RUN
2	TRANSMIT
3	POWER
4	RECEIVE

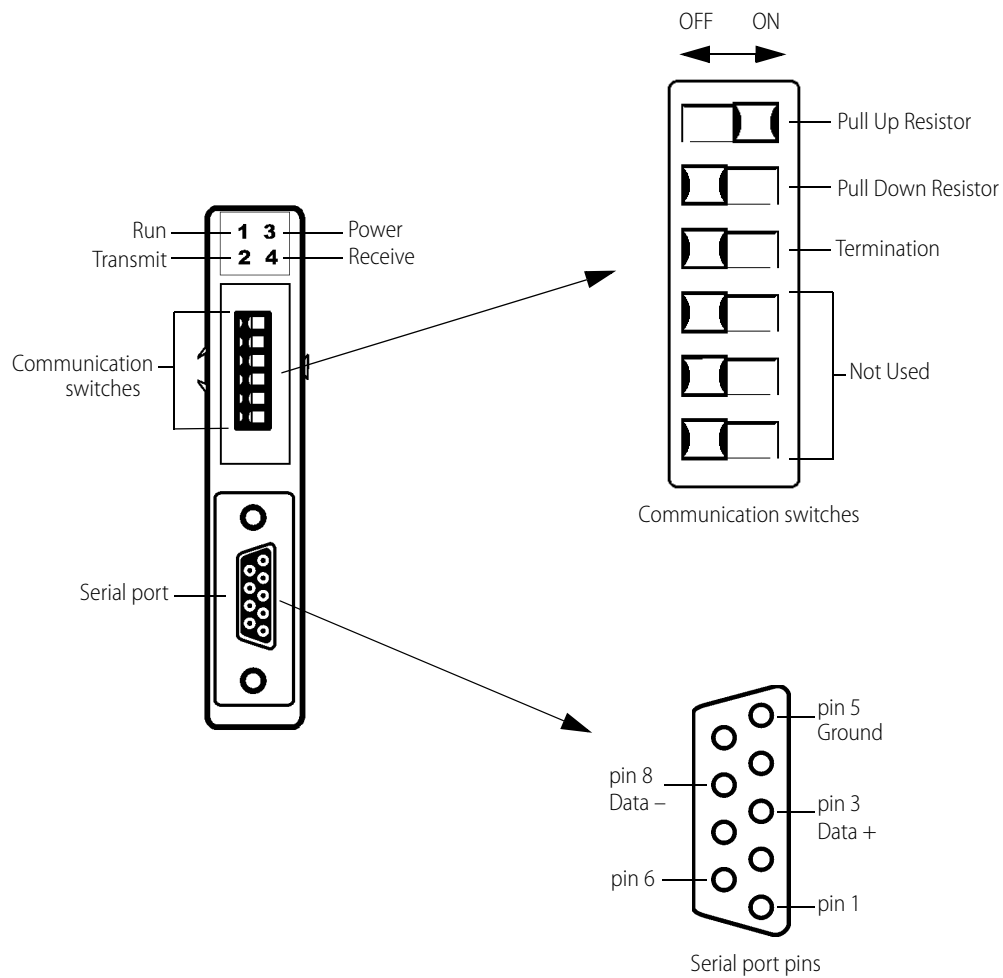
SNAP-SCM-PROFI Communication Module

System Architecture, Profibus DP Master



SNAP-SCM-PROFI Communication Module

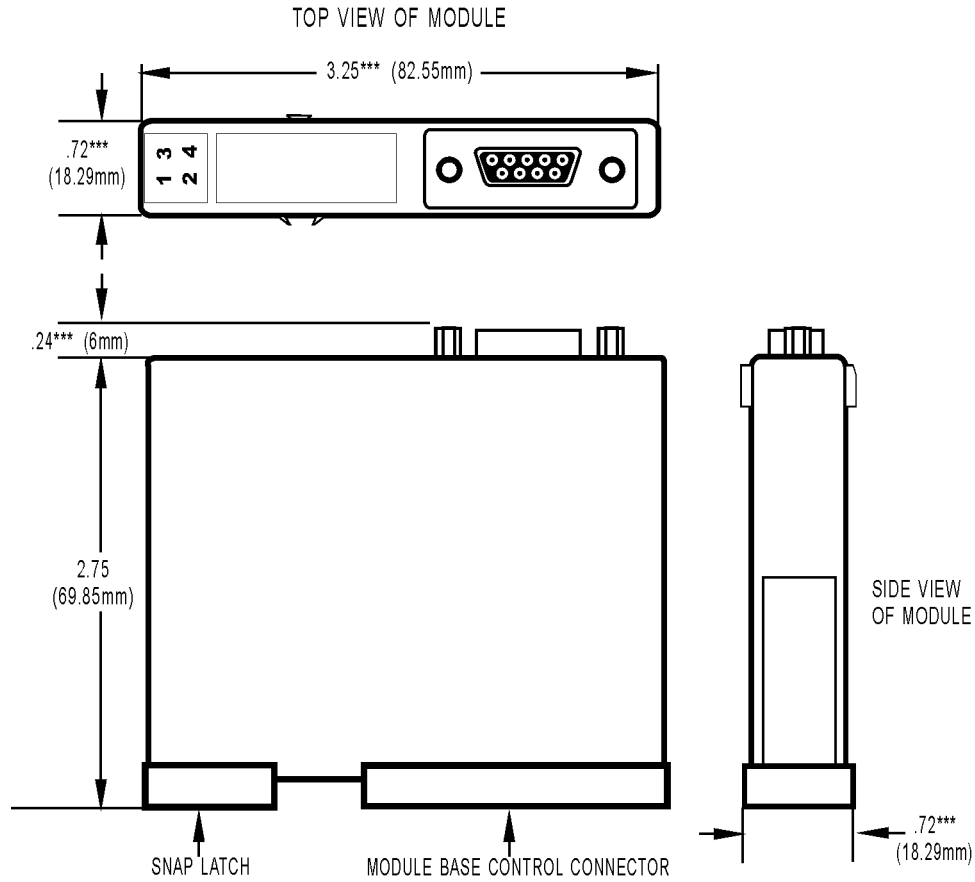
Wiring



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.

SNAP-SCM-PROFI Communication Module

Dimensions



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

More About Opto 22

Products

Opto 22 develops and manufactures reliable, easy-to-use, open standards-based hardware and software products deployed worldwide.

Industrial automation, process control, building automation, industrial refrigeration, remote monitoring, data acquisition, Industrial Internet of Things (IIoT), and information technology applications all rely on Opto 22.



groov

Monitor and control your equipment from anywhere using your smartphone or tablet with groov. Build your own mobile app easily—just drag, drop, and tag. No programming or coding. Visit groov.com for more information and your free trial.

SNAP PAC System

Developer- and IIoT-ready, the SNAP PAC System connects physical assets to databases and applications using open standards. The SNAP PAC System consists of four integrated components:

- SNAP PAC controllers
- PAC Project™ Software Suite
- SNAP PAC brains
- SNAP I/O™

SNAP PAC Controllers

SNAP PAC programmable automation controllers handle a wide range of digital, analog, and serial functions for data collection, remote monitoring, process control, and discrete and hybrid manufacturing.

For IIoT applications and easier integration with company systems, standalone and rack-mounted SNAP PACs include a built-in HTTP/HTTPS server and **RESTful API** (application program interface). The REST API gives you secure, direct access to I/O and variable data using your choice of programming languages. No middleware, protocol converters, drivers, or gateways needed.

Based on open Ethernet and Internet Protocol (IP) standards, SNAP PACs make it easier to build or extend a system without the expense and limitations of proprietary networks and protocols.

PAC Project Software Suite

Opto 22's PAC Project Software Suite offers full-featured, cost-effective control programming, HMI (human machine interface), OPC server, and database connectivity software.

Control programming includes both easy-to-learn flowcharts and optional scripting. Commands are in plain English; variables and I/O point names are fully descriptive.

PAC Project Basic offers control and HMI tools and is free for download on our website, www.opto22.com. PAC Project Professional, available for separate purchase, adds one SoftPAC software-based controller, OptoOPCServer, OptoDataLink, options for controller redundancy or segmented networking, and support for legacy Opto 22 serial *mistic*™ I/O units.

SNAP PAC Brains

While SNAP PAC controllers provide central control and data distribution, SNAP PAC brains provide distributed intelligence for I/O processing and communications. Brains offer analog, digital, and serial functions, including thermocouple linearization, local PID loop control, watchdog, totalizing, and much more.

SNAP I/O

I/O provides the local connection to sensors and equipment. Opto 22 SNAP I/O offers 1 to 32 points of reliable I/O per module. Analog, digital, and serial modules are mixed on one mounting rack and controlled by a SNAP PAC brain or rack-mounted PAC.

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 only testing a sample of each batch, we can 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, comprehensive 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.

Additional support is always available on our website: how-to videos, OptoKnowledgeBase, self-training guide, troubleshooting and user's guides, and OptoForums.

In addition, hands-on training is available for free at our Temecula, California headquarters, and you can [register online](#).

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 951-695-3000, or visit our website at www.opto22.com.

{RESTful API}



www.opto22.com