SNAP-SCM-W2 Module

Features

- ⬊ Two individually isolated Wiegand interface serial ports
- ⬊ Works with SNAP Ultimate I/O, SNAP Ethernet I/O, and SNAP-IT units
- ⬊ Up to eight Wiegand modules per rack
- ⬊ LED indicators for received data on each port
- ⬊ Sample ioControl strategy and Visual Basic utility available
- ⬊ 30-month warranty.

Description

The SNAP-SCM-W2 serial communication module provides two isolated channels of data input from attached devices that comply with the Wiegand® interface format.

Ideal for access control applications, the SNAP-SCM-W2 complies with the Security Industry Association Standard Protocol for the 26-bit Wiegand Reader Interface. As part of a SNAP I/O™ system, the module lets you manage access to rooms, equipment, or remote facilities.

The SNAP-SCM-W2 can be used 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 module receives incoming data from card readers, keypads, or other Wiegand devices. This data is processed by the brain and made available for use by authorized computers through any or all of the brain's communication protocols, including SNMP, SMTP, FTP, Opto 22's OptoMMP memory map-based protocol, Modbus/TCP, and EtherNet/IP. When the module is used with a rack-mounted controller, incoming data from Wiegand devices can also be processed by a PAC Control™ strategy running on the controller.

The SNAP-SCM-W2 snaps into Opto 22 SNAP PAC mounting racks right beside digital, analog, and regular RS-232 or RS-485 serial modules, to provide the mix of modules you need for your application at any location, local or remote.

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.

For details on using the SNAP-SCM-W2 , see Opto 22 form #1191, the *SNAP Serial Communication Module User's Guide*.

SNAP-SCM-W2 Module

Notes for legacy hardware: The SNAP-SCM-PROFI also works with older analog/digital/serial SNAP Ultimate, SNAP Ethernet, and SNAP Simple brains and M-series or B-series racks.

Sample Applications

Also available are two sample software applications: an ioControl strategy and a Visual Basic utility application. The strategy configures modules, processes card reader data, and sends SNMP traps for security monitoring. The utility manages user names and entry permissions.

The sample strategy can be used as is, or you can open it in PAC Control and modify it to fit your needs. Both samples can be downloaded from our website at www.opto22.com.

For information on the sample strategy and utility application, see form #1366, the Door Access Management technical note.
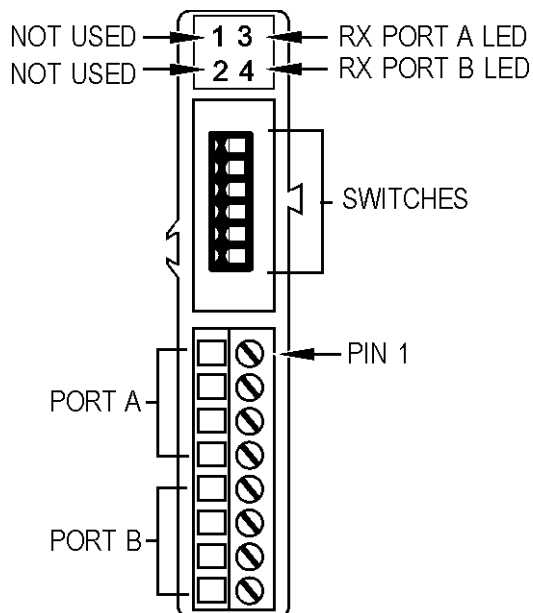
Part Numbers

Part	Description
SNAP-SCM-W2	Two-channel Wiegand interface serial communication module

SNAP-SCM-W2 Module

Specifications

Channel-to-channel isolation	250 Vrms
Logic supply voltage	5.0 VDC (± 0.15)
Logic supply current	250 mA
Number of ports per module	2
Maximum number of modules per rack*	8
Maximum cable length	See table below
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.
Operating Temperature Storage Temperature	-20 to 70 °C operating -30 to 85 °C storage
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

* With Opto 22 SNAP power supply and SNAP rack

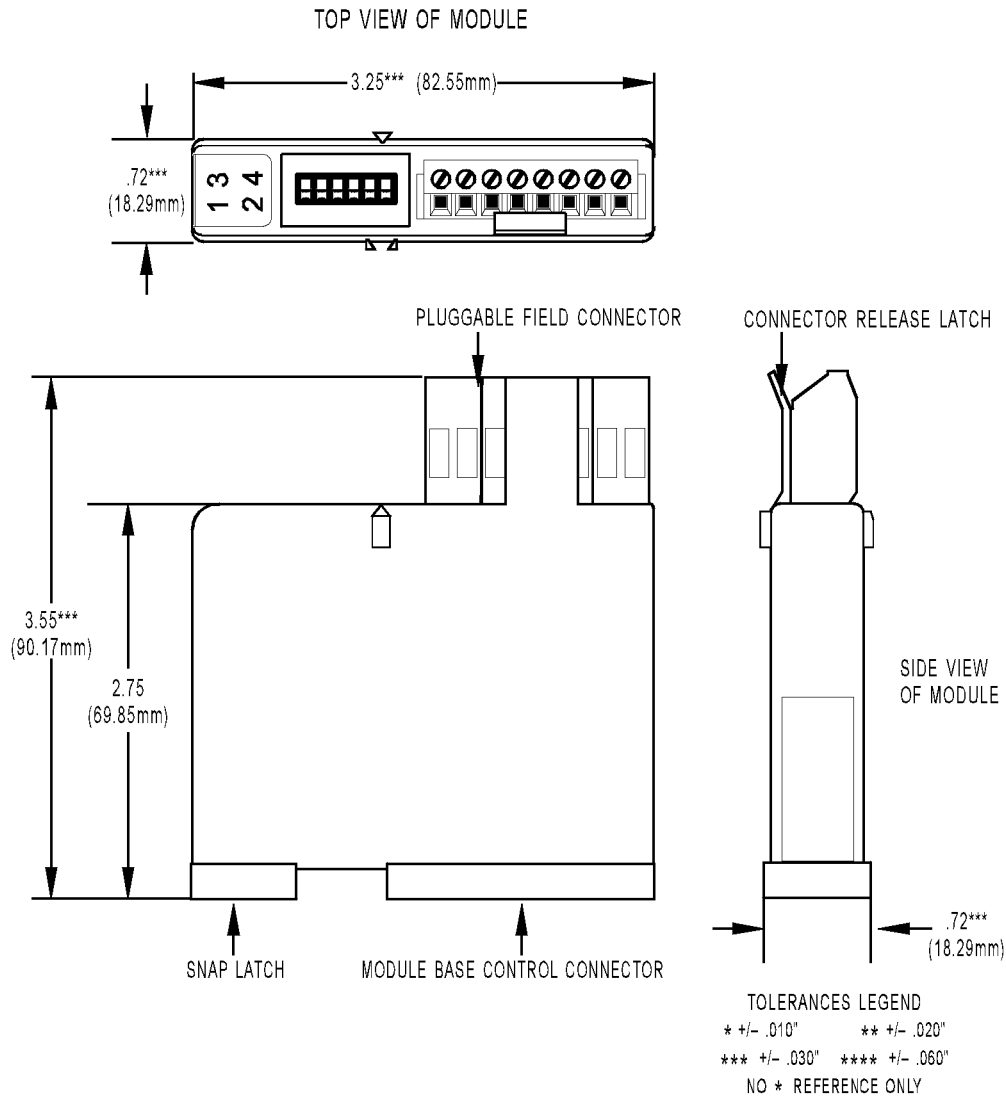| Cable Length	Conductor Size
Up to 200 ft. (60 m)	22 GA stranded or larger
Up to 300 ft. (90 m)	20 GA stranded or larger
Up to 500 ft. (150 m)	18 GA stranded or larger

LED	Indicates
1	Not used
2	Not used
3	RX port A
4	RX port B

For pinouts and additional information, see Opto 22 form #1191, the *SNAP Serial Communication Module User's Guide*.

SNAP-SCM-W2 Module

Dimensions

SNAP-SCM-W2 Wiegand Serial Communication Module

TOP VIEW OF MODULE

3.25*** (82.55mm)

.72***
(18.29mm)

1 3
2 4

PLUGGABLE FIELD CONNECTOR

CONNECTOR RELEASE LATCH

3.55***
(90.17mm)

2.75
(69.85mm)

SIDE VIEW
OF MODULE

.72***
(18.29mm)

SNAP LATCH

MODULE BASE CONTROL CONNECTOR

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

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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.