These products are obsolete.

OBSOLETE SNAP PAC RACKS TECHNICAL NOTE

This technical note contains information you may need about obsolete SNAP PAC racks you're still using. Included are part numbers, descriptions, specifications, wiring diagrams, and dimensional drawings. In most cases, these parts have been removed from data sheets because we no longer sell them.

This document includes information on the following obsolete SNAP PAC racks:

Part Numbers	Description
SNAP-PAC-RCK4-FM	4-module SNAP PAC rack
SNAP-PAC-RCK8-FM	8-module SNAP PAC rack
SNAP-PAC-RCK12-FM	12-module SNAP PAC rack
SNAP-PAC-RCK16-FM	16-module SNAP PAC rack

Note: Part numbers ending in FM were Factory Mutual approved prior to 2024.

For Help

As always, if you are using Opto 22 products and cannot find the help you need in this technical note, contact Opto 22 Product Support. Product support is free.

Phone: 800-TEK-OPTO
(800-835-6786 toll-free in the U.S. and Canada)
951-695-3080
Monday through Friday,
7 a.m. to 5 p.m. Pacific Time

NOTE: Email messages and phone calls to Opto 22 Product Support are grouped together and answered in the order received.

Email: support@opto22.com

Opto 22 website: www.opto22.com

When calling for technical support, be prepared to provide a complete description of your hardware and operating system to the Product Support engineer.

This information should include:

- accessories installed
- type of power supply
- types of I/O modules and racks used
- third-party devices installed
- how the system is wired

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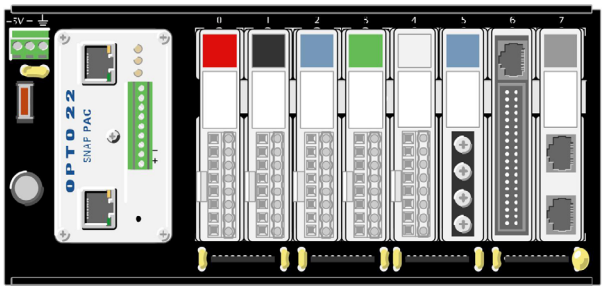
SNAP PAC I/O mounting racks are designed to hold an intelligent SNAP I/O processor—a SNAP PAC brain or a SNAP PAC R-series on-the-rack controller—and several I/O modules.

Since SNAP analog, digital, and serial I/O modules all have the same footprint, customers using SNAP PAC racks can mix all these modules on the same I/O mounting rack. Field devices are wired directly to the top-mounted connectors on the modules plugged into each rack, or through breakout boards when additional wiring space is required. (See form 1756, the *SNAP TEX Cables and Breakout Boards Data Sheet*, for more information.)

SNAP PAC racks can accommodate up to 4, 8, 12, or 16 I/O modules.

NOTE: SNAP-PAC-RCK4-FM, SNAP-PAC-RCK-8-FM, SNAP-PAC-RCK 12-FM and SNAP-PAC-RCK16-FM are OBSOLETE. For information about ***current SNAP PAC racks****, see form 1684, SNAP PAC Rack Data Sheet.*

The module and rack design allows modules to simply "snap" on the mounting rack.



SNAP-PAC-RCK8 (8-Module Position I/O Mounting Rack)
Shown with SNAP-PAC-R1 controller and SNAP modules (all purchased separately)

SNAP PAC racks use a retention rail locking system. Install two 4-40 by ½-inch standard machine screws to hold each module in position.

All SNAP PAC racks offer panel mounting and the option of DIN-rail mounting. DIN-rail adapter part numbers are shown in the table below.

SNAP PAC racks require a 5 VDC power source. One power supply can usually power the rack, the I/O processor (controller or brain), and all modules on the rack. See form 1120, the *SNAP Power Supplies Data Sheet*, to choose a power supply.

SPECIFICATIONS

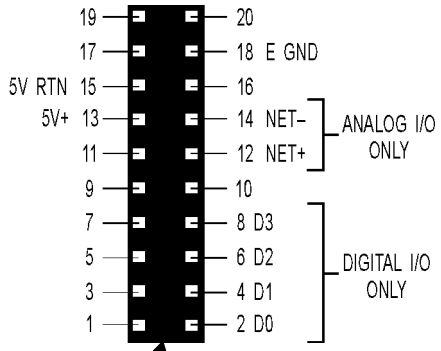
Power[1] Requirements	5.0 to 5.2 VDC @ 4.2 Amps max
I/O Processor[2] Compatibility	SNAP-PAC-R1 SNAP-PAC-R2 SNAP-PAC-EB1[3] SNAP-PAC-EB2[3] SNAP-PAC-SB1 SNAP-PAC-SB2 SNAP-PAC-R1-W[3]
Replacement Fuse	SNAP-FUSE7.5AB or Littelfuse 297 07.5
Rack Power Terminals Wire Size	22 to 14 AWG
Operating Temperature	–20 to 70 °C
Storage Temperature	–40 to 85 °C
Relative Humidity	95%, non-condensing

These products are obsolete.

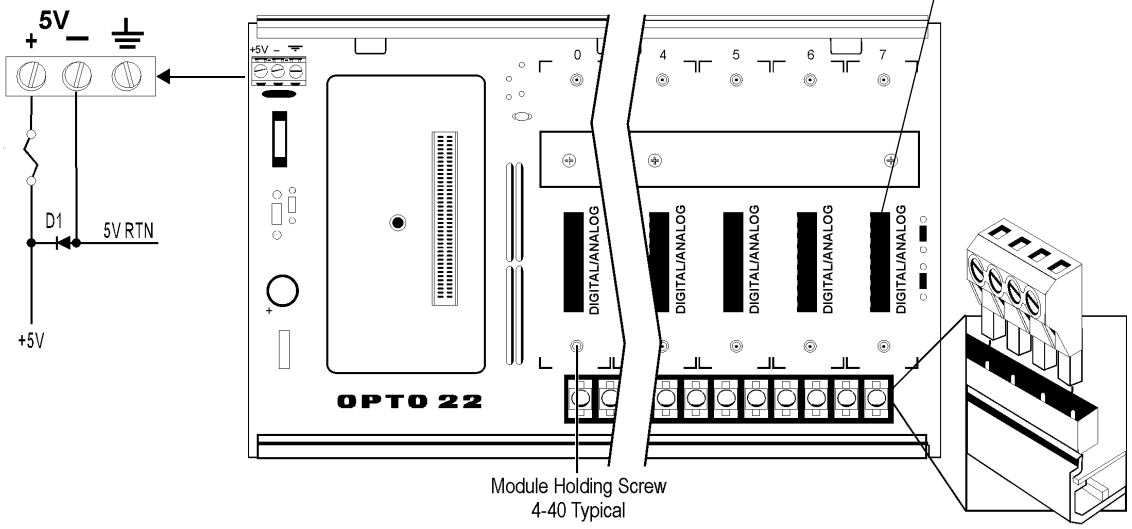
Agency Approvals	CE, ATEX, RoHS, DFARS; UKCA
Warranty	30 months from date of manufacture

1 Power requirements shown are for a rack, a processor, and a full load of analog modules. Power requirements for SNAP serial and high-density modules are higher. See module data sheets.
2 "I/O Processor" means a SNAP PAC brain or SNAP PAC on-the-rack controller. For compatibility with legacy Opto 22 products, see form #1693, *Legacy and Current Product Comparison and Compatibility Charts*.
3 Obsolete product; will be unavailable when current stock is depleted.

Module Mating Connector Pinout (female)



Power Schematic



Notes on Grounding
Pin 18 E GND on each module (see diagram above right) is connected to the rack's GND. Module hold-down screws are also connected to the rack's GND.
The brain or rack-mounted controller is connected to the rack's GND through its center hold-down screw.

WARNING: EXPLOSION HAZARD. DO NOT DISCONNECT WHILE CIRCUIT IS LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.

AVERTISSEMENT: RISQUE D'EXPLOSION. NE PAS DÉBRANCHER TANT QUE LE CIRCUIT EST SOUS TENSION, À MOINS QU'IL NE S'AGISSE D'UN EMPLACEMENT NON DANGEREUX.

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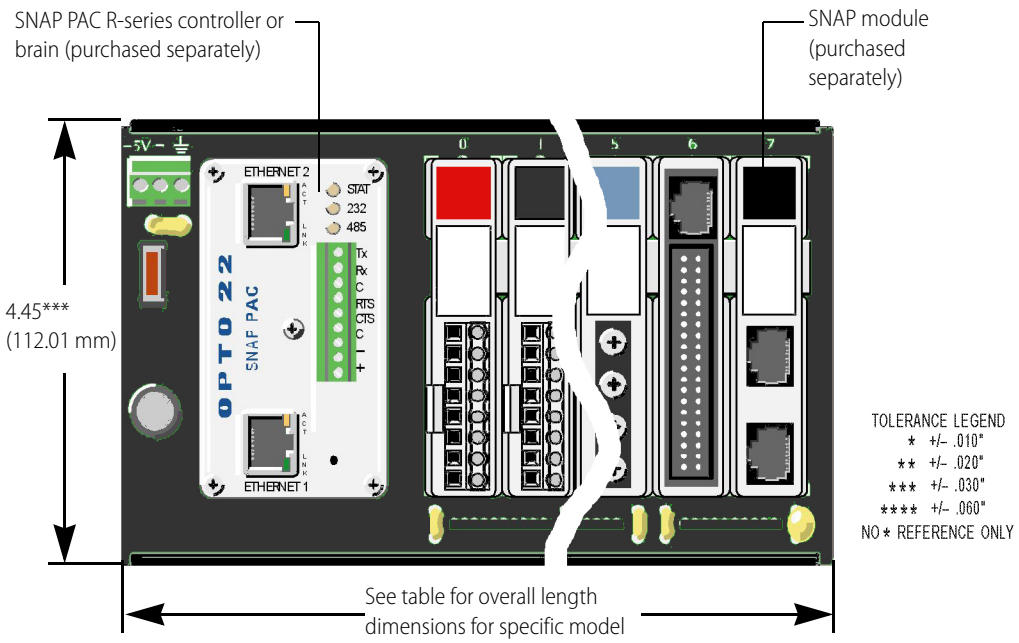
DIMENSIONAL DRAWINGS

Overall Dimensions



Overall Length Dimensions

Part Number	Description	Width (inches)	Width (mm)	Length (inches)	Length (mm)
SNAP-PAC-RCK4-FM	4-module rack	4.45	112.01	6.25	158.75
SNAP-PAC-RCK8-FM	8-module rack	4.45	112.01	9.25	234.95
SNAP-PAC-RCK12-FM	12-module rack	4.45	112.01	12.25	311.15
SNAP-PAC-RCK16-FM	16-module rack	4.45	112.01	15.25	387.35

These products are obsolete.

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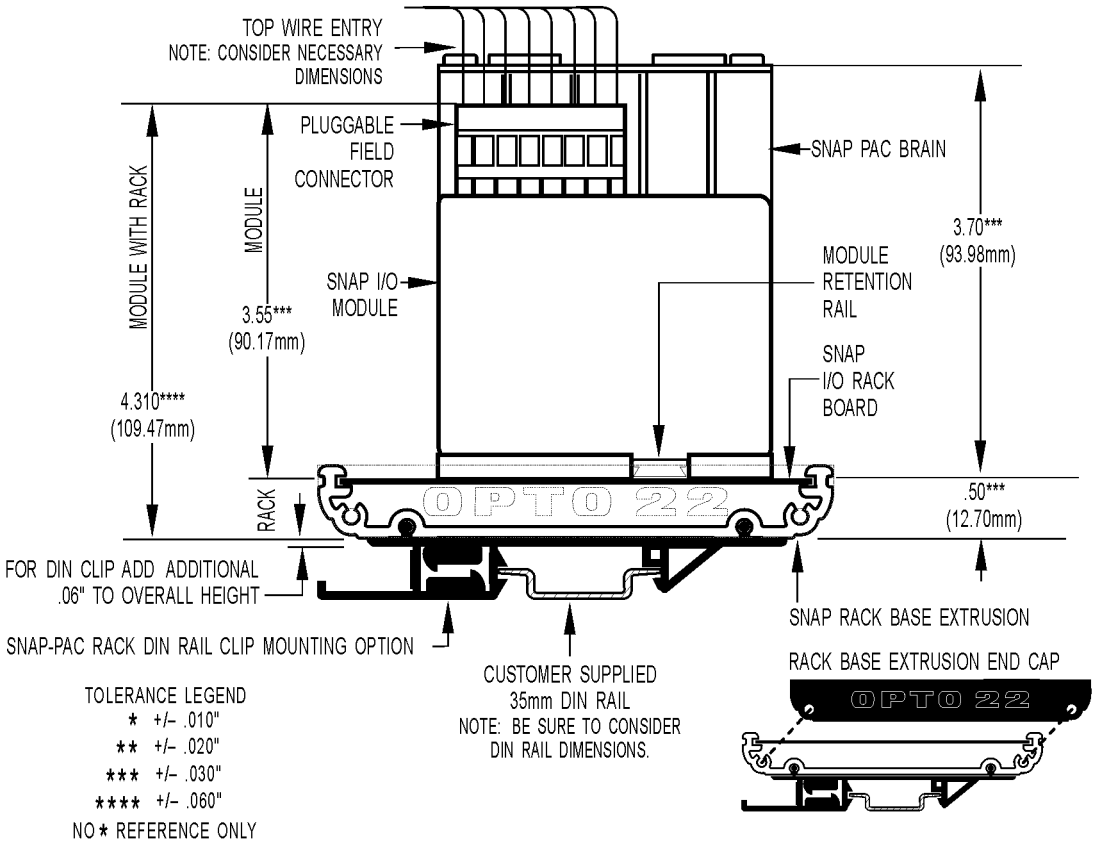
DIMENSIONAL DRAWINGS (CONTINUED)

Right Side View with DIN-Rail Option Installed



MOUNTING THE EXTRUSION ONTO A PANEL

Use the following steps to mount a rack onto a panel.page 7.

CAUTION: *Do not let cutting fluids, cleaners, lubricants, or other chemicals contact the plastic extrusion, as they can cause cracking. If you use these chemicals before rack installation, be sure they are thoroughly cleaned off.*

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Preferred Method: Template

(Product on site)

1. Use SNAP PAC rack mounting extrusion as template.
2. Use the diagram below to determine required product and option clearances.

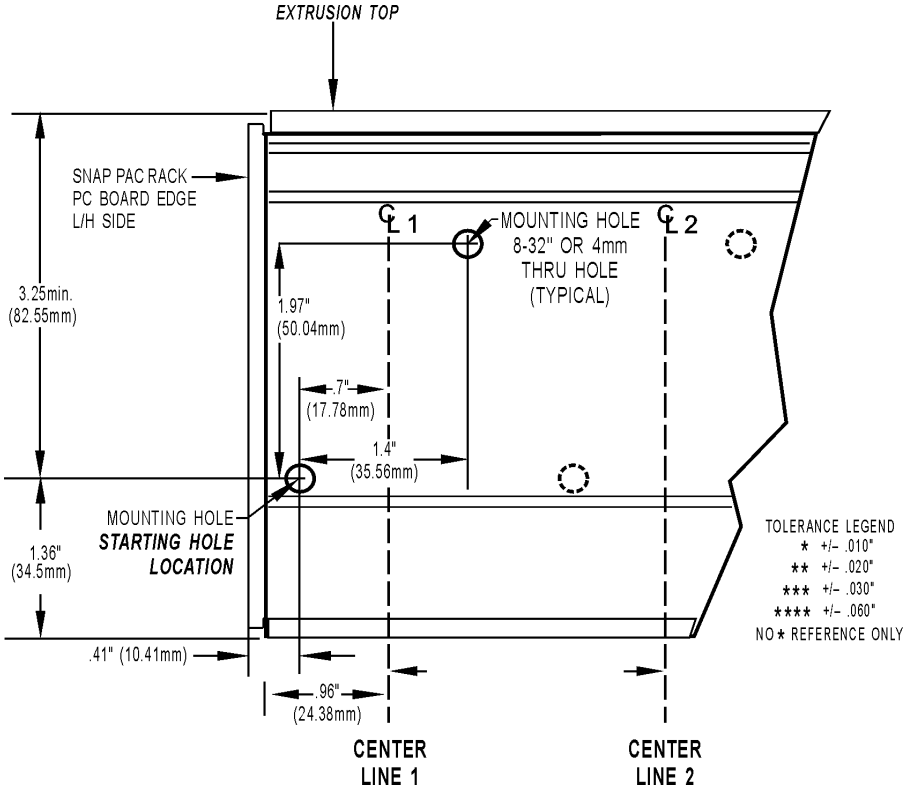
Alternate Method: Prefabrication of Panels

(No product on site)

Mounting holes are in sets of two, located on lower left and upper right with respect to a center line (CL).

1. Using the diagram below, determine CL1 mounting hole positions. (CL1 is located on the left side of all SNAP PAC rack mounting extrusions.)
2. Use the center-to-center length specification table below to determine the offset between center lines and the number of center line positions for each model.
3. Repeat the process for each center line position.

Typical Plain View of SNAP Mounting Extrusion



Center-to-Center Length (All Models)

Part Number	Description	Center-to-Center Length	Number of Center Positions
SNAP-PAC-RCK4-FM	4-module rack	4.02 in.	2
SNAP-PAC-RCK8-FM	8-module rack	3.51 in.	3
SNAP-PAC-RCK12-FM	12-module rack	5.01 in.	3
SNAP-PAC-RCK16-FM	16-module rack	4.34 in.	4

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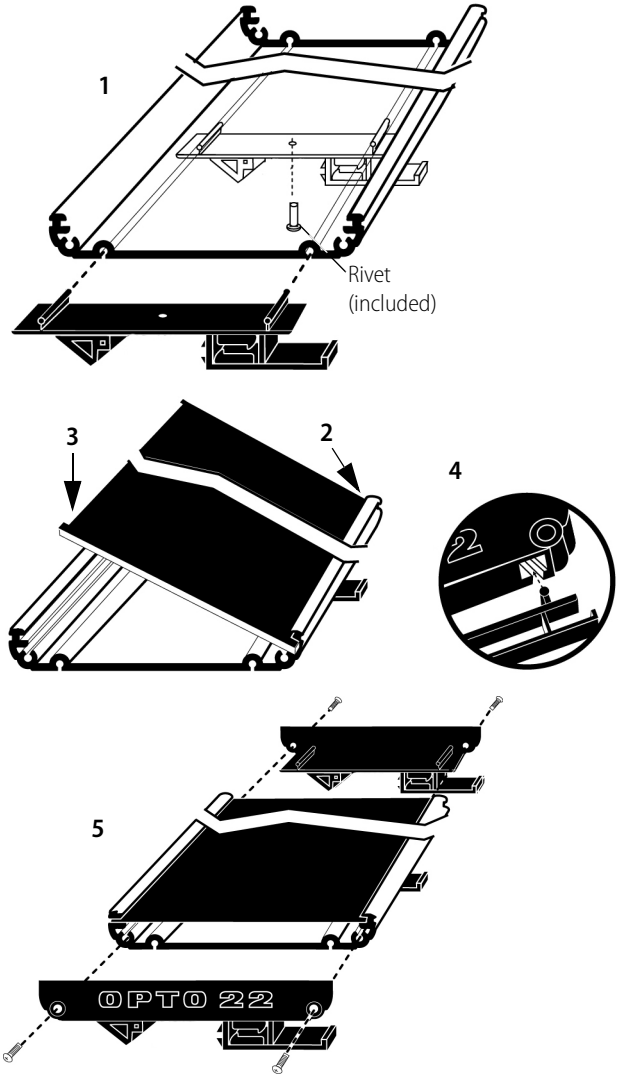
These products are obsolete.

ASSEMBLING AND MOUNTING ON A DIN RAIL

For panel mounting, start on page 5

1. (This step only for racks with three or more clips.) Slide one DIN clip to the middle position and secure with the rivet provided. For racks with four clips, add an additional middle clip.
2. Insert one edge of the circuit board into the extrusion.
3. Push down hard on the other edge to snap the board into place.
4. Attach one DIN clip to each end cap using the slots in the end caps as shown.
5. Using the screws provided, secure an end cap and DIN clip assembly to each end of the extrusion.

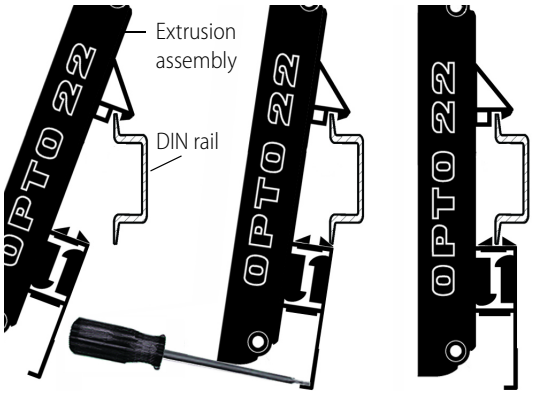


Removing the Circuit Board from the Rack Extrusion

If end caps are present, remove them. Then insert a flathead screwdriver in one of the circuit board release notches and pry up the board. Repeat in the other release notches until the board pops out of the extrusion.

Attaching the Adapter Clip to a DIN Rail

1. Hook the DIN-rail clip over the top of the DIN rail.
2. Using a screwdriver, pry open the DIN-rail clip flange at the bottom of the clip. Push the clip toward the DIN rail.
3. Snap the DIN-rail clip into place



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