Form 785L-970228

description

The SNAP® "B Series" racks are designed to work with the SNAP B3000 intelligent I/O processor for use in applications that require the remote control of both analog and digital modules. The B3000 is designed to communicate serially with Opto 22 controllers or a host computer. Since SNAP analog and digital modules have the same footprint, customers using SNAP "B Series" racks can mix analog and digital modules on the same I/O mounting rack. SNAP "B Series" racks can accommodate 8, 12, or 16 modules.

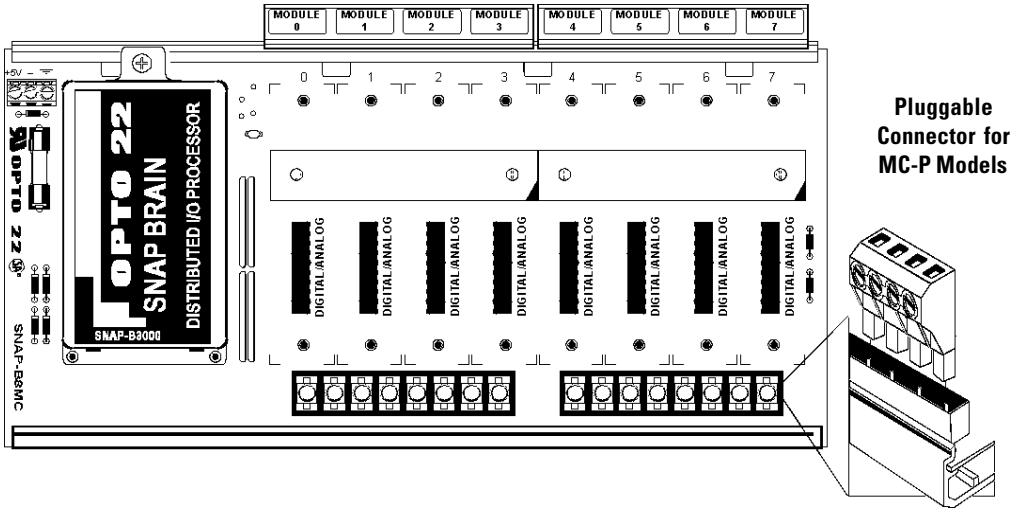
The MC and MC-P model racks provide a screw-type terminal strip for field wiring common connections such as loop power distribution. The MC racks use a fixed terminal strip while the MC-P uses removable connectors for easy maintenance (see exploded view).

Field devices are wired directly to the top-mounted removable connectors on the SNAP I/O modules. The new module and rack design allows modules to simply "snap" on and off the mounting rack. SNAP racks use an innovative retention rail locking system that holds modules securely to the rack. Normally, a hold-down screw is not required. However, for applications that require additional module security, SNAP racks have provisions for two 4-40 by ½-inch standard machine screws to hold each module in position. All SNAP racks offer panel mounting and the option of DIN rail mounting and have available "snap-on" identification plates for labeling each individual channel. SNAP racks require a 5 VDC power source.

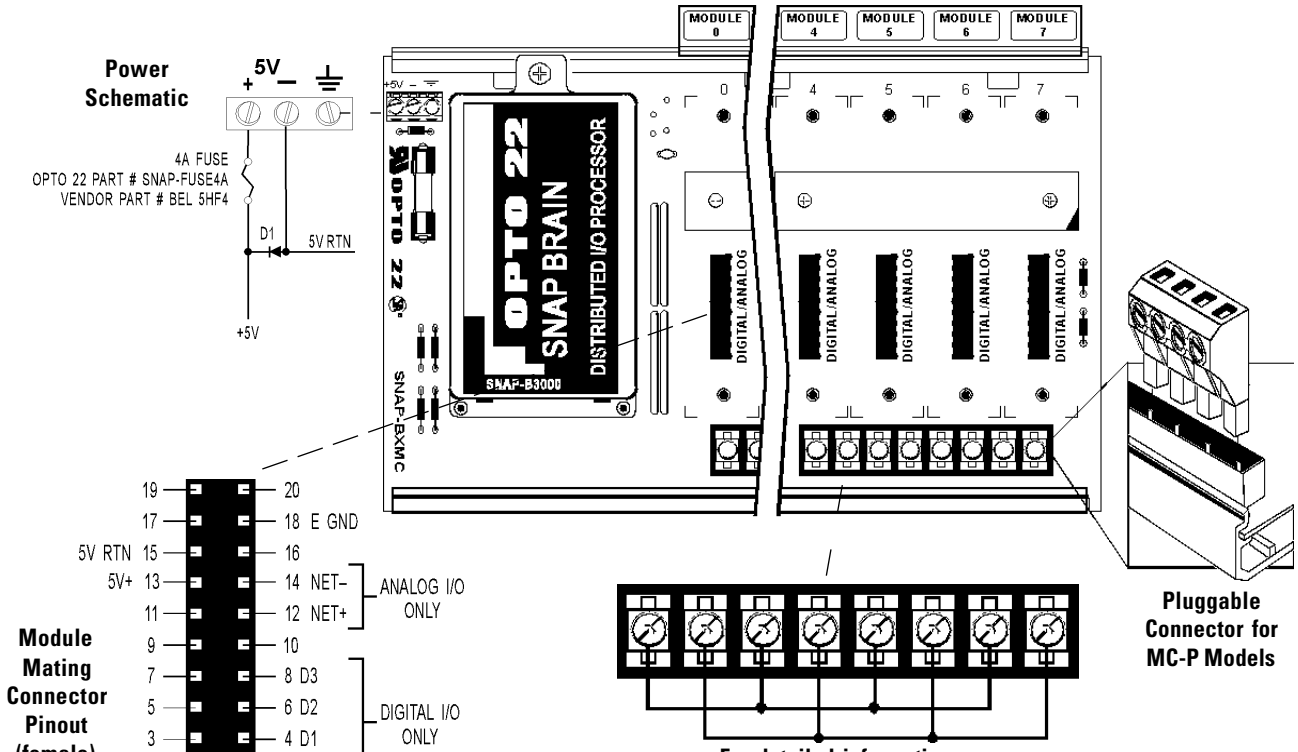
Part Numbers	Description
SNAP-B8MC	8-module rack with extra terminal block for field wiring
SNAP-B8MC-P	8-module rack with extra terminal block for field wiring, pluggable
SNAP-B12MC*	12-module rack with extra terminal block for field wiring
SNAP-B12MC-P*	12-module rack with extra terminal block for field wiring, pluggable
SNAP-B16MC*	16-module rack with extra terminal block for field wiring
SNAP-B16MC-P*	16-module rack with extra terminal block for field wiring, pluggable
SNAP-FUSE4AB	4-amp fuse 25-pack
SNAP-LABEL4B	4-module label holder with labels 25-pack
SNAP-LABEL6B	6-module label holder with labels 25-pack
SNAP-RACKDIN	SNAP rack DIN Rail adapter clip
SNAP-RACKDINB	SNAP rack DIN Rail adapter clip 25-pack

*** For "B Series" racks that accommodate more than 8 modules, positions 8 and above are analog only.**

SNAP-B8MC 8-MODULE POSITION I/O MOUNTING RACK WITH B3000 I/O PROCESSOR



specifications ALL MODELS



For detailed information on terminal strip usage, see pages 6-10.

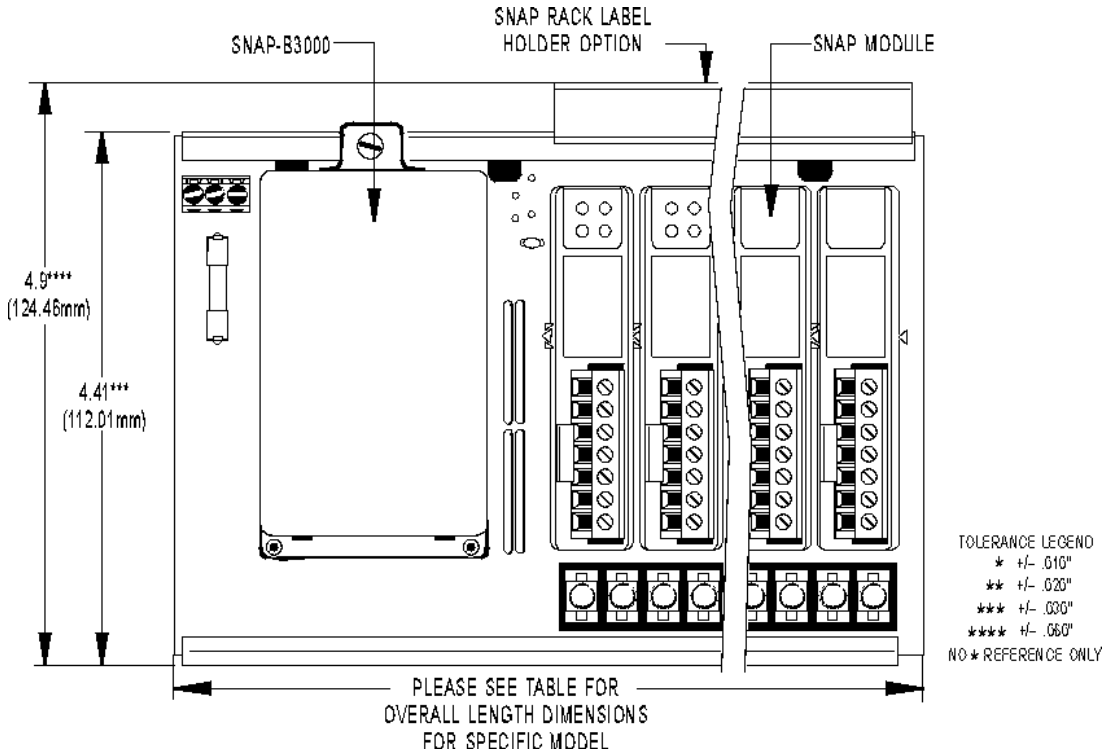
Operating Specifications

Part Numbers	Description	Power Requirements	Operating Temperature Range	Relative Humidity
SNAP-B8MC	8-module rack with extra terminal block for field wiring	5 VDC ± 0.25 @ 2.6 Amps max.	0° to 70° C	95%, non-condensing
SNAP-B8MC-P	8-module rack with extra terminal block for field wiring, pluggable	5 VDC ± 0.25 @ 2.6 Amps max.	0° to 70° C	95%, non-condensing
SNAP-B12MC	12-module rack with extra terminal block for field wiring	5 VDC ± 0.25 @ 3.4 Amps max.	0° to 70° C	95%, non-condensing
SNAP-B12MC-P	12-module rack with extra terminal block for field wiring, pluggable	5 VDC ± 0.25 @ 3.4 Amps max.	0° to 70° C	95%, non-condensing
SNAP-B16MC	16-module rack with extra terminal block for field wiring	5 VDC ± 0.25 @ 4.2 Amps max.	0° to 70° C	95%, non-condensing
SNAP-B16MC-P	16-module rack with extra terminal block for field wiring, pluggable	5 VDC ± 0.25 @ 4.2 Amps max.	0° to 70° C	95%, non-condensing

NOTES:
1. B3000 processor requires 1 Amp.
2. Analog modules require 200 mA each.
3. Digital modules require 50 mA each.
4. Rack module positions 8 and above are for analog modules only.

dimensional drawing ALL MODELS

FRONT VIEW (WHEN MOUNTED)

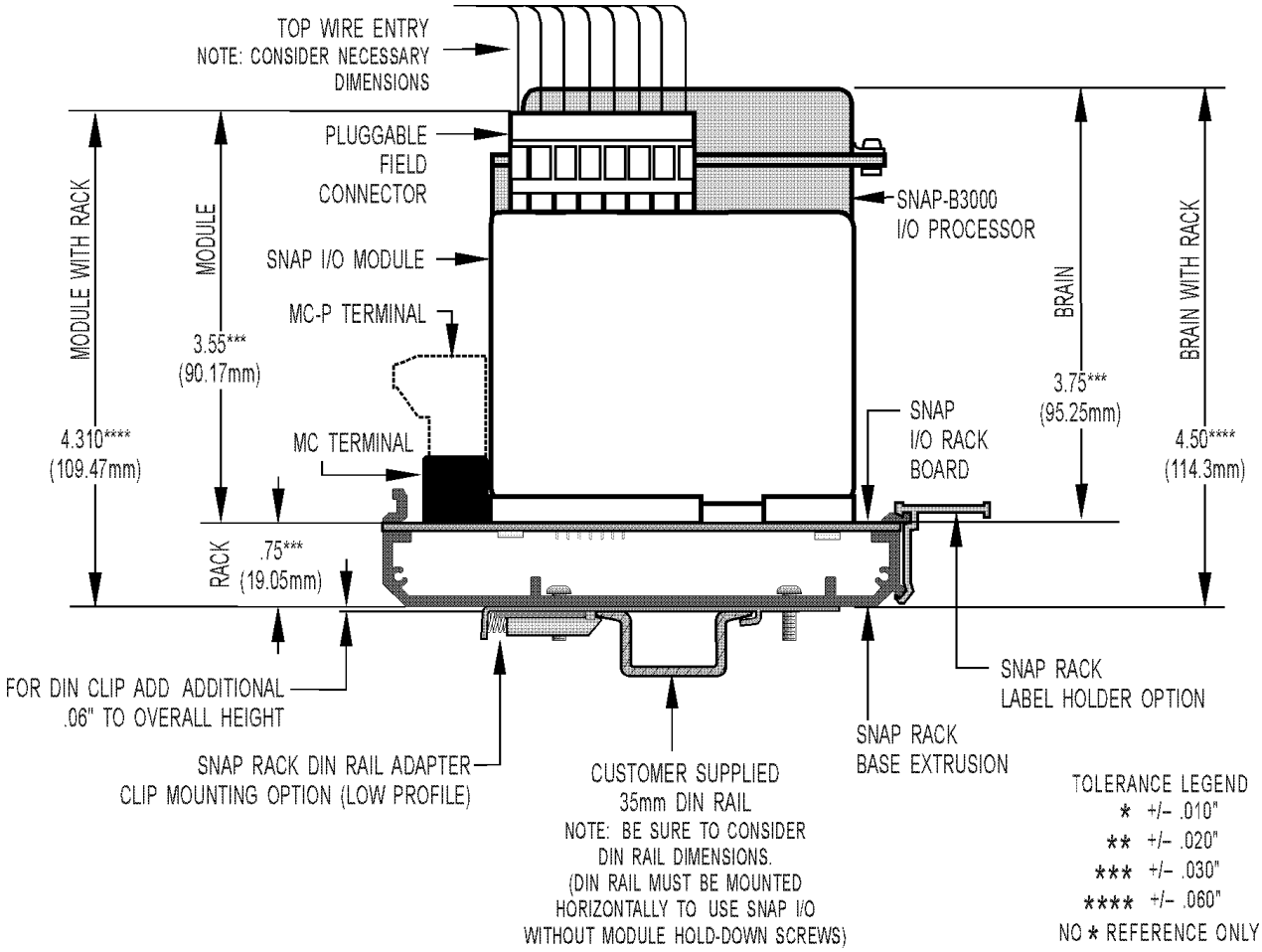


Overall Length Dimensions (All Models)

Part Numbers	Description	Length (inches)	Length (mm)
SNAP-B8MC	8-module rack with extra terminal for field wiring	9.24	234.7
SNAP-B8MC-P	8-module rack with extra terminal for field wiring, pluggable	9.24	234.7
SNAP-B12MC	12-module rack with extra terminal for field wiring	12.24	310.9
SNAP-B12MC-P	12-module rack with extra terminal for field wiring, pluggable	12.24	310.9
SNAP-B16MC	16-module rack with extra terminal for field wiring	15.24	387.1
SNAP-B16MC-P	16-module rack with extra terminal for field wiring, pluggable	15.24	387.1

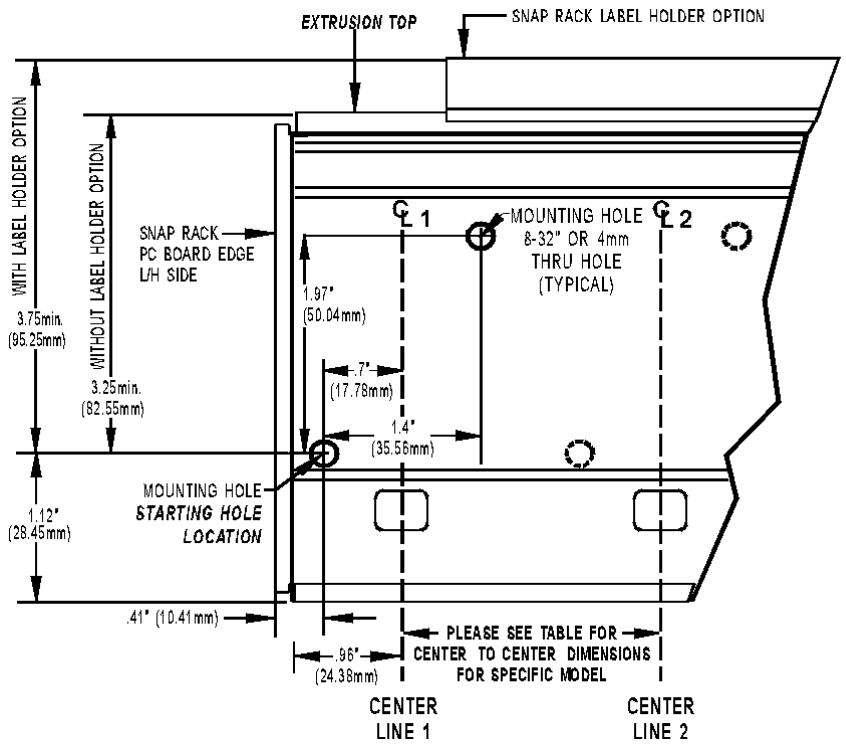
dimensional drawing ALL MODELS

RIGHT SIDE VIEW (WITH DIN RAIL OPTION INSTALLED)



dimensional drawing ALL MODELS

TYPICAL PLAIN VIEW OF SNAP MOUNTING EXTRUSION



GENERAL:
The SNAP rack assembly should be mounted horizontally, as shown in diagram if not using module hold-down screws.

Preferred Method: Template
(product on site)
1. Use SNAP rack mounting extrusion as template.
2. Be sure to use drawing to determine required product and option clearances.

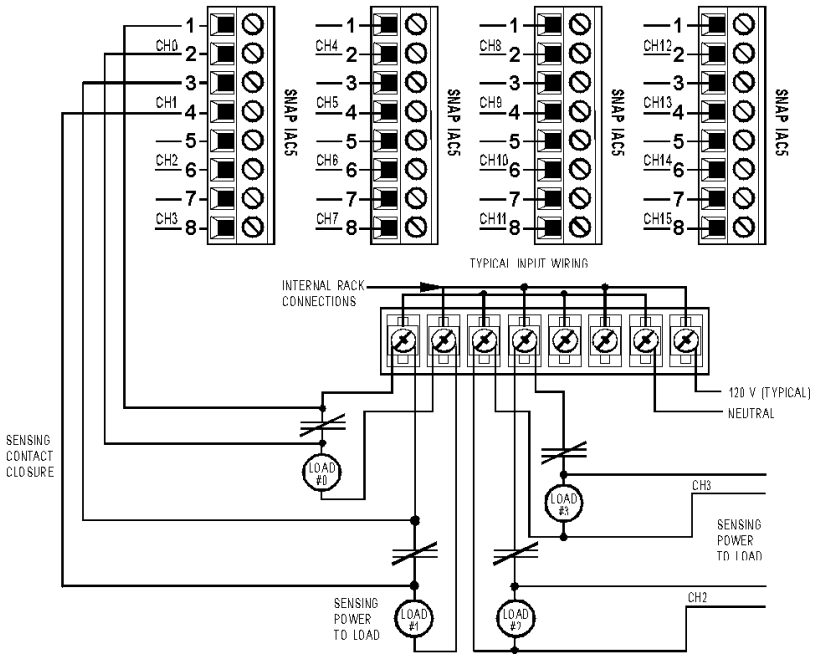
Alternate Method: Prefabrication of Panels
(no product on site)
1. Mounting holes are in sets of two located on lower left and upper right, with respect to a centerline (CL).
2. Using the drawing, determine CL_1 mounting hole positions. (CL_1 is located on the left side of all SNAP rack mounting extrusions).
3. Use the center-to-center length specification table to determine offset between centerlines and number of centerline positions for each model.
4. Repeat process for each centerline position.
5. Dimensions shown in drawing apply to all models.

Center-to-Center Length (All Models)

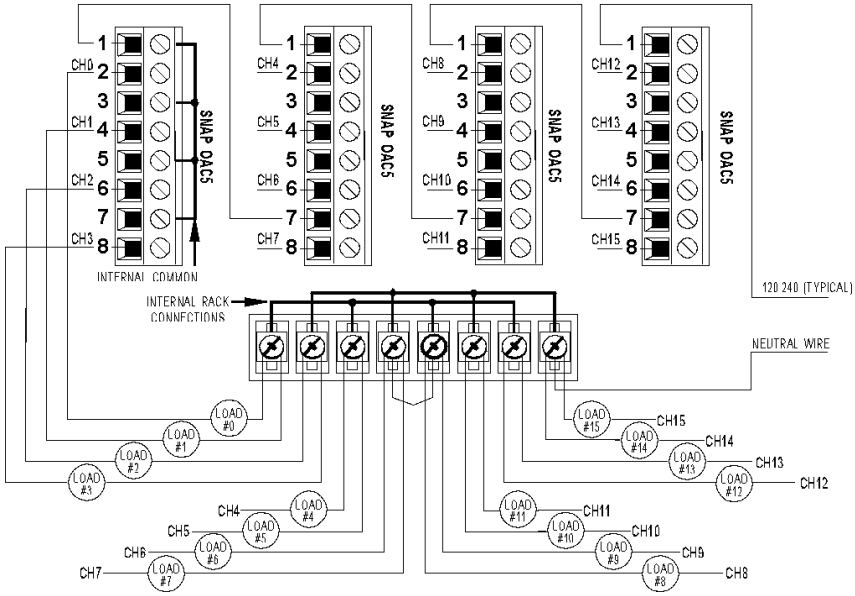
Part Numbers	Description	Center to Center Length	# of Center Positions
SNAP-B8MC	8-module rack with extra terminal for field wiring	3.51"	3
SNAP-B8MC-P	8-module rack with extra terminal for field wiring, pluggable	3.51"	3
SNAP-B12MC	12-module rack with extra terminal for field wiring	5.01"	3
SNAP-B12MC-P	12-module rack with extra terminal for field wiring, pluggable	5.01"	3
SNAP-B16MC	16-module rack with extra terminal for field wiring	4.34"	4
SNAP-B16MC-P	16-module rack with extra terminal for field wiring, pluggable	4.34"	4

schematics TERMINAL STRIP USAGE - DIGITAL

Typical Digital Input Using Terminal Strip

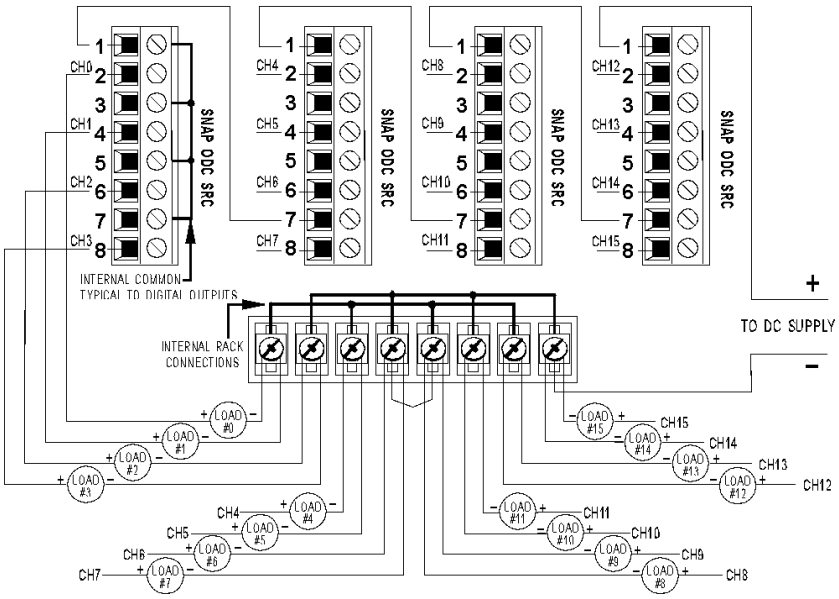


Typical Digital AC Output Using Terminal Strip

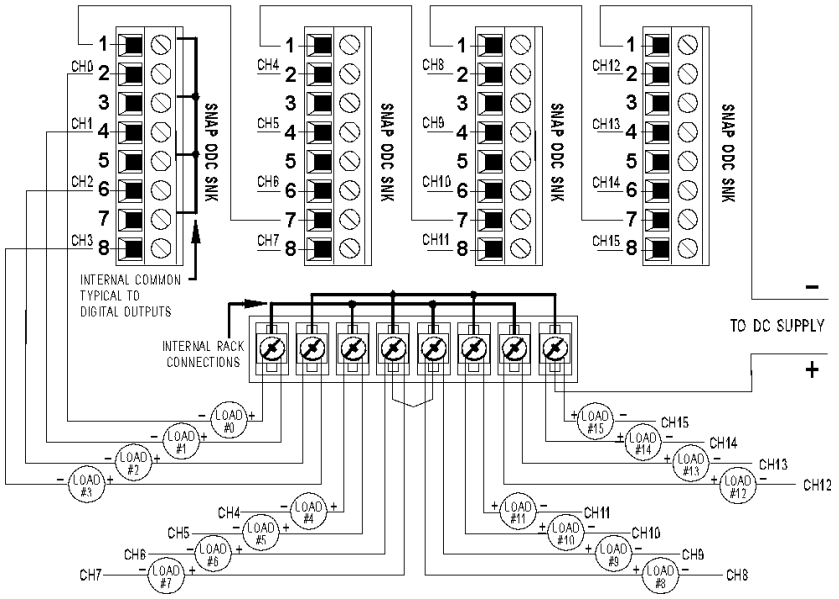


schematics TERMINAL STRIP USAGE - DIGITAL (CONT.)

Typical Digital DC Output (Sourcing) Using Terminal Strip

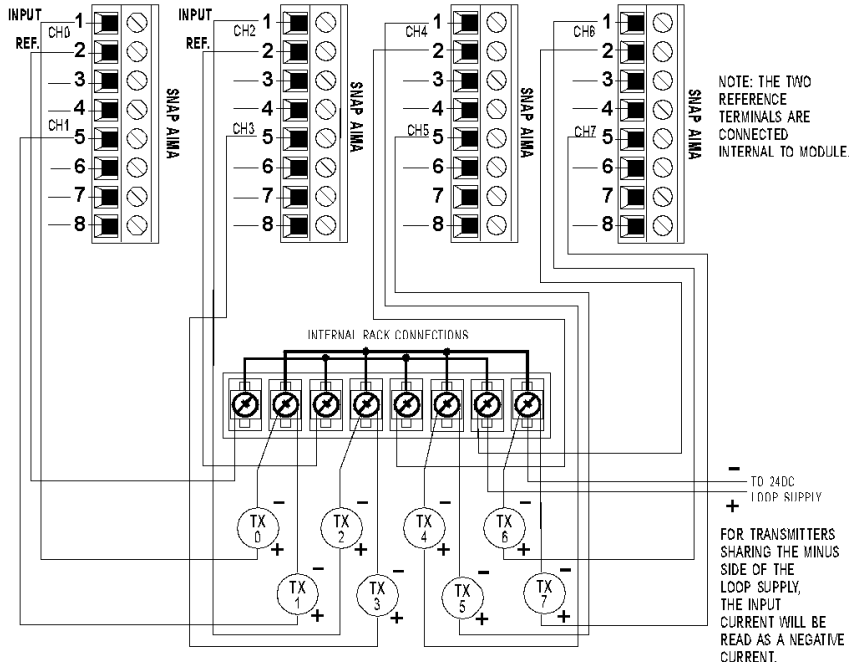


Typical Digital DC Output (Sinking) Using Terminal Strip

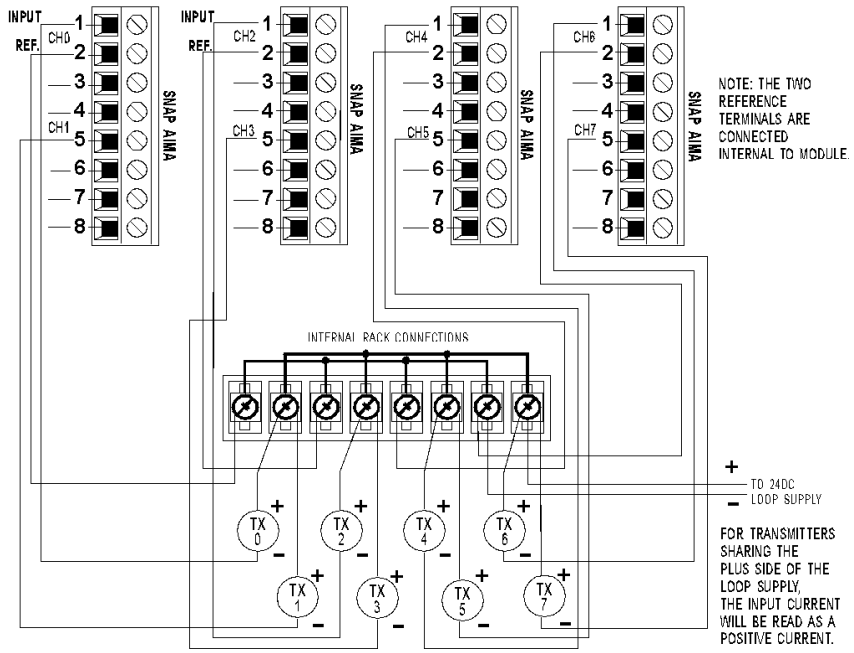


schematics TERMINAL STRIP USAGE - ANALOG

Typical Analog Input (Current: Negative) Using Terminal Strip

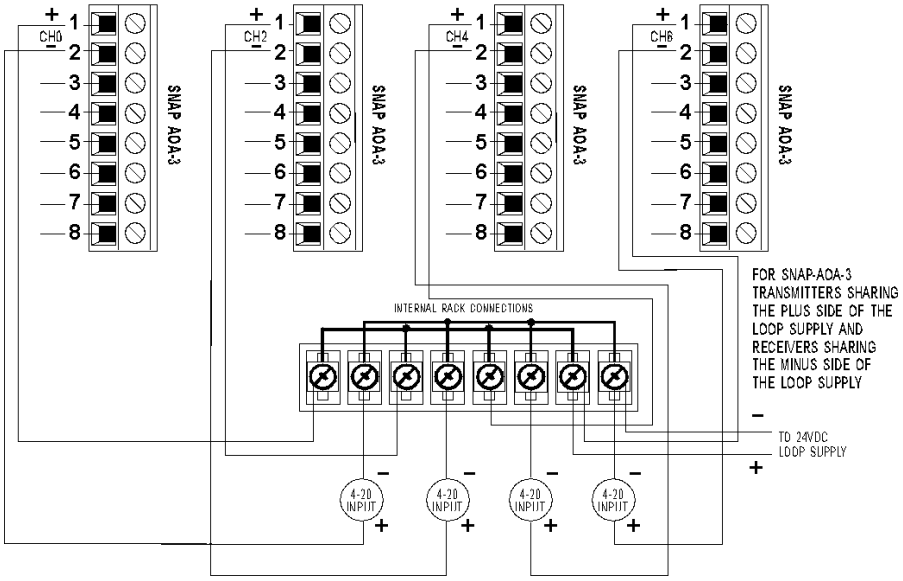


Typical Analog Input (Current: Positive) Using Terminal Strip

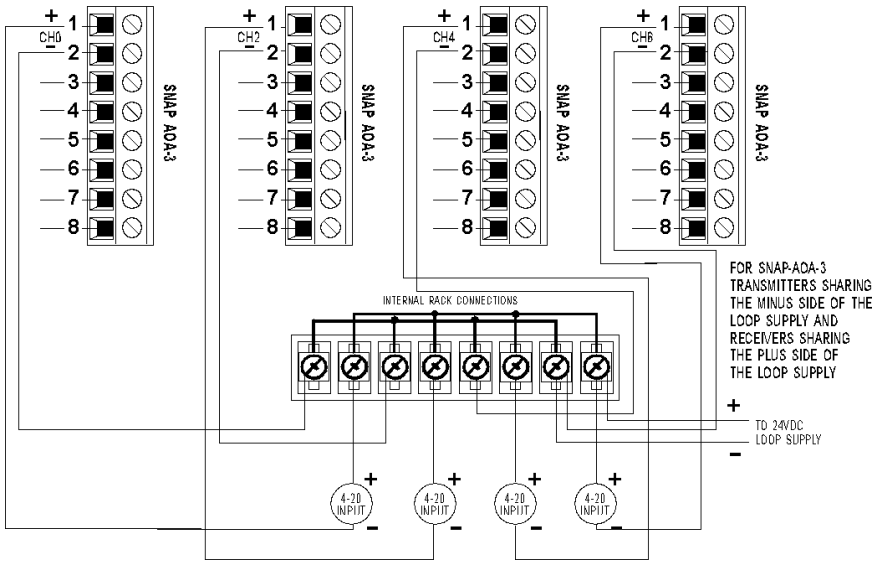


schematics TERMINAL STRIP USAGE - ANALOG (CONT.)

Typical Analog Output (4-20 mA Current: Sourcing) Using Terminal Strip



Typical Analog Output (4-20 mA Current: Sinking) Using Terminal Strip



schematics TERMINAL STRIP USAGE - ANALOG (CONT.)

Typical Analog Input (Voltage) Using Terminal Strip