

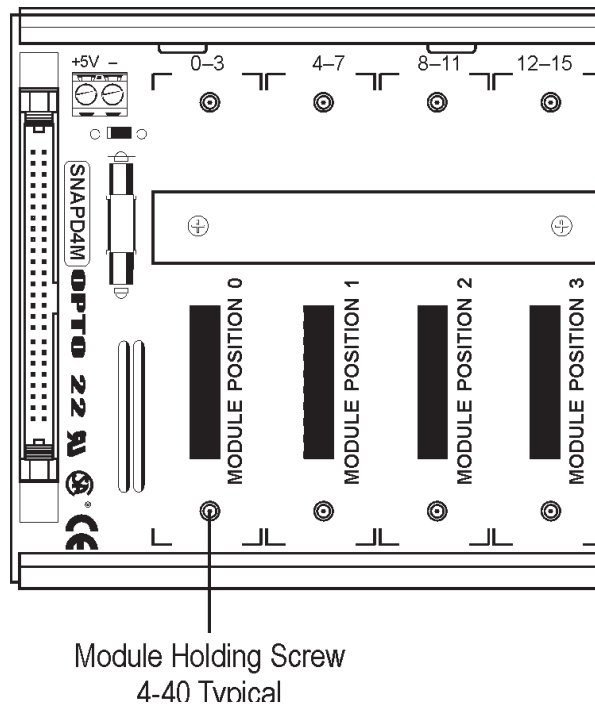
### Description

The SNAP® "D Series" racks are designed for discrete control applications and can accommodate 4, 6, 8, or 12 SNAP 4-channel digital modules. These racks use an industry-standard 50-pin header connector, which allows these racks to be used in a variety of applications. The logic side of the I/O circuitry can be controlled directly, or by using any ISA bus computer with Opto 22's G4AC5 adapter card. In addition, the 4-module position SNAP-D4M can be used with Opto 22's Classic brain boards. These boards use one of Opto 22's industry-standard protocols (Mistic®, Optomux®, or Pamux®) to control the I/O, and communicate either serially or in parallel.

Field devices are wired directly to the top-mounted removable connectors on the SNAP I/O modules. The module and rack design allows modules to simply "snap" on and off the mounting rack. SNAP racks use a 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 mounting security, SNAP racks have provisions for two 4-40 by 1/2-inch standard machine screws to hold each module in position. All SNAP racks offer panel mounting and the option of DIN rail mounting. SNAP racks use a single 5 VDC power source.

Part Number	Description
SNAP-D4M	4-module rack
SNAP-D6M	6-module rack
SNAP-D8M	8-module rack
SNAP-D12M	12-module rack
SNAP-CDBBDIN	Classic Digital Brain Board DIN Rail Adapter
SNAP-FUSE1AB	1-Amp fuse 25-pack
SNAP-RACKDIN	SNAP rack DIN Rail adapter clip
SNAP-RACKDINB	SNAP rack DIN Rail adapter clip 25-pack

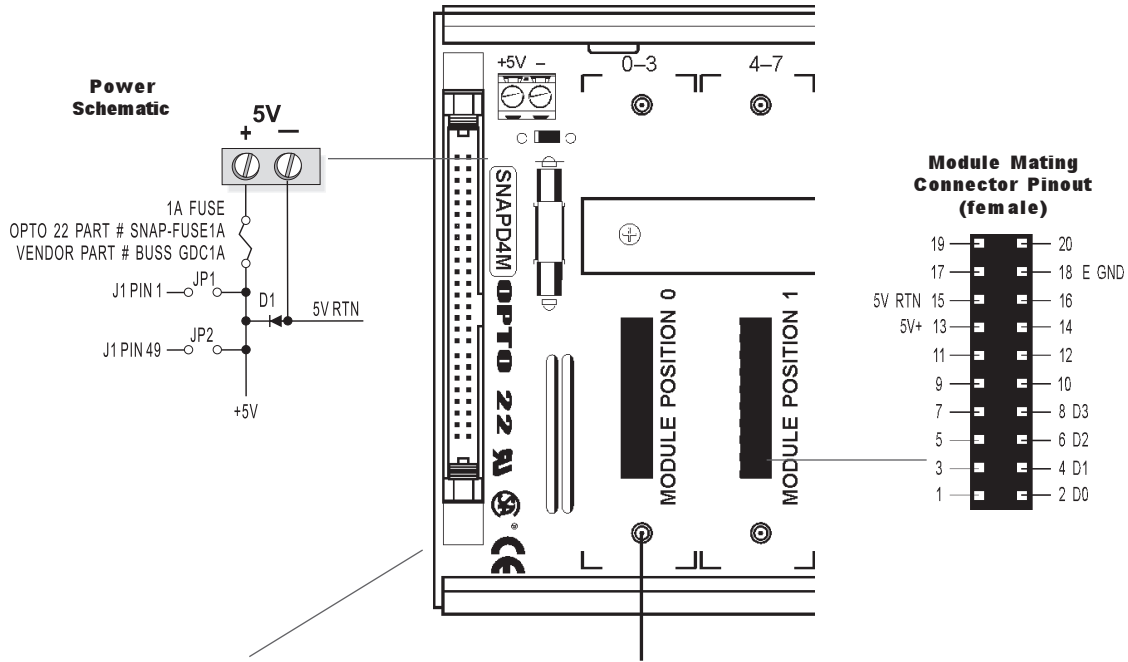
**SNAP-D4M 4-Module position I/O Mounting Rack**



Form 777-010124

### Specifications

#### SNAP-D4M (4 Module Position)



**Control Connector (50-pin male)**

Module Position	Channel Position	J1 Control Connector
0	0	47
	1	45
	2	43
1	3	41
	4	39
	5	37
	6	35
	7	33
2	8	31
	9	29
	10	27
	11	25
	12	23
	13	21
	14	19
	15	17

Module Holding Screw  
4-40 Typical

#### Operating Requirements

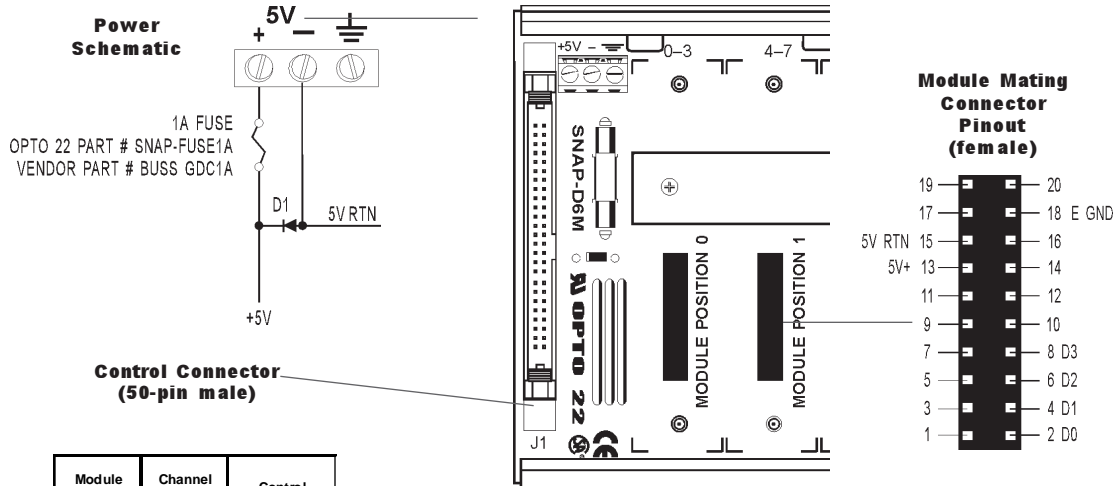
Power Requirements	5 VDC $\pm$ 0.1 VDC @ 200mA max. (700mA with brain board)
Operating Temperature Range	0° to 70°C
Relative Humidity	95%, non-condensing

Notes:

1. Even pins on control connectors are connected common to 5V RTN.
2. Pin 1 of control connector J1 is connected common to +5V.
3. Pin 49 of control connector J1 is connected common to +5V.
4. Odd numbered pins 3 through 15 of control connectors are not used.

### Specifications

#### SNAP-D6M (6 Module Position)



Module Position	Channel Position	Control Connector
0	0	47
	1	45
	2	43
	3	41
1	4	39
	5	37
	6	35
	7	33
2	8	31
	9	29
	10	27
	11	25
3	12	23
	13	21
	14	19
	15	17
4	16	15
	17	13
	18	11
	19	9
5	20	7
	21	5
	22	3
	23	1

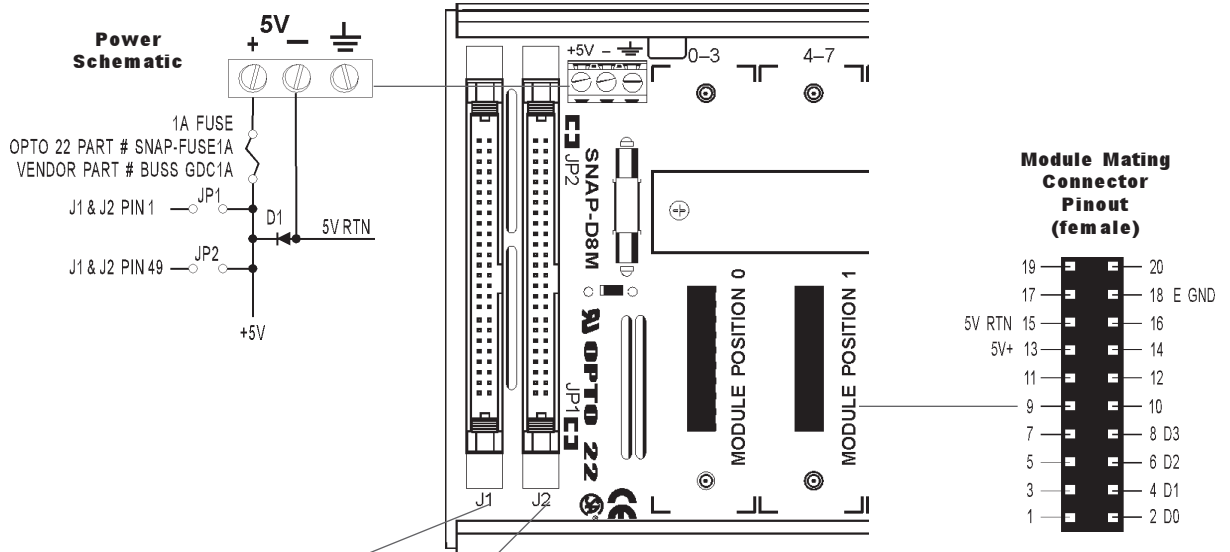
### Operating Requirements

Power Requirements	5 VDC $\pm$ 0.1 VDC @ 300mA max.
Operating Temperature Range	0° to 70°C
Relative Humidity	95%, non-condensing

#### Notes:

1. Even pins on control connectors are connected to 5V RTN.
2. SNAP-D6M and SNAP-D12M are designed to interface with PC adapter cards (i.e. AC5 or G4AC5). They are not compatible with brain boards because there is no power to the control connector.
3. Pin 49 - "no" connection.

### Specifications SNAP-D8M (8 Module Position)



#### Control Connectors (50-pin male)

Module Position	Channel Position	J1 Control Connector	Module Position	Channel Position	J2 Control Connector
0	0	47	4	16	47
	1	45		17	45
	2	43		18	43
	3	41		19	41
1	4	39	5	20	39
	5	37		21	37
	6	35		22	35
	7	33		23	33
2	8	31	6	24	31
	9	29		25	29
	10	27		26	27
	11	25		27	25
3	12	23	7	28	23
	13	21		29	21
	14	19		30	19
	15	17		31	17

#### Operating Requirements

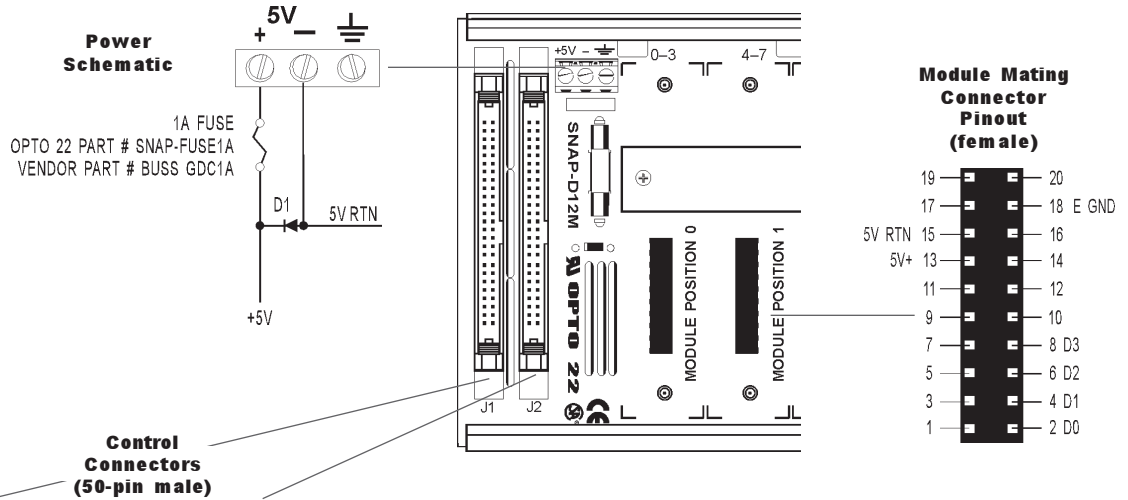
Power Requirements	5 VDC ± 0.1 VDC @ 400mA max.
Operating Temperature Range	0° to 70°C
Relative Humidity	95%, non-condensing

#### Notes:

- Even pins on control connectors are connected to 5V RTN.
- Pin 1 of control connectors J1 and J2 is connected to +5V through jumper JP1.
- Pin 49 of control connectors J1 and J2 is connected to +5V through jumper JP2.
- For operation with PC adapter cards (i.e. AC5 or G4AC5), remove jumpers JP1 and JP2.
- Odd numbered pins 3 through 15 of control connectors are not used.

### Specifications

#### SNAP-D12M (12 Module Position)



Module Position	Channel Position	Control Connector
0	0	47
	1	45
	2	43
	3	41
1	4	39
	5	37
	6	35
	7	33
2	8	31
	9	29
	10	27
	11	25
3	12	23
	13	21
	14	19
	15	17
4	16	15
	17	13
	18	11
	19	9
5	20	7
	21	5
	22	3
	23	1

Module Position	Channel Position	J2 Control Connector
6	0	47
	1	45
	2	43
	3	41
7	4	39
	5	37
	6	35
	7	33
8	8	31
	9	29
	10	27
	11	25
9	12	23
	13	21
	14	19
	15	17
10	16	15
	17	13
	18	11
	19	9
11	20	7
	21	5
	22	3
	23	1

#### Operating Requirements

Power Requirements	5 VDC ± 0.1 VDC @ 1200mA max.
Operating Temperature Range	0° to 70°C
Relative Humidity	95%, non-condensing

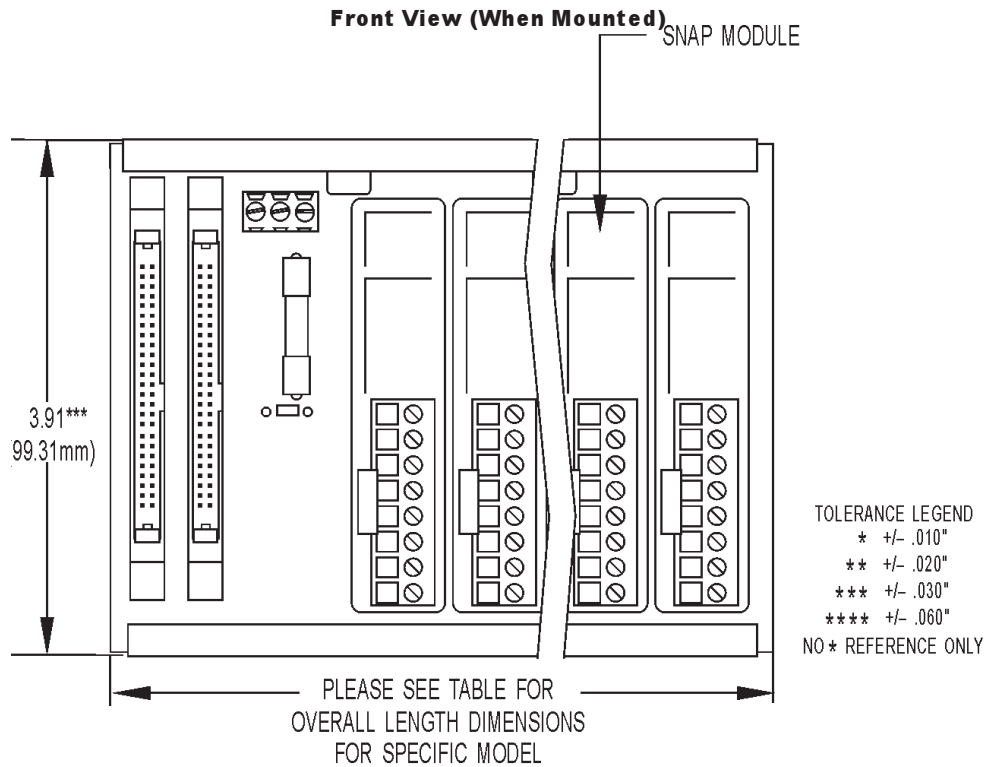
#### Notes:

1. Even pins on control connectors are connected to 5V RTN.
2. SNAP-D6M and SNAP-D12M are designed to interface with PC adapter cards (i.e. AC5 or G4AC5). They are not compatible with brain boards because there is no power to the control connector.

Form 777-010124

### Dimensional Drawing

All Models

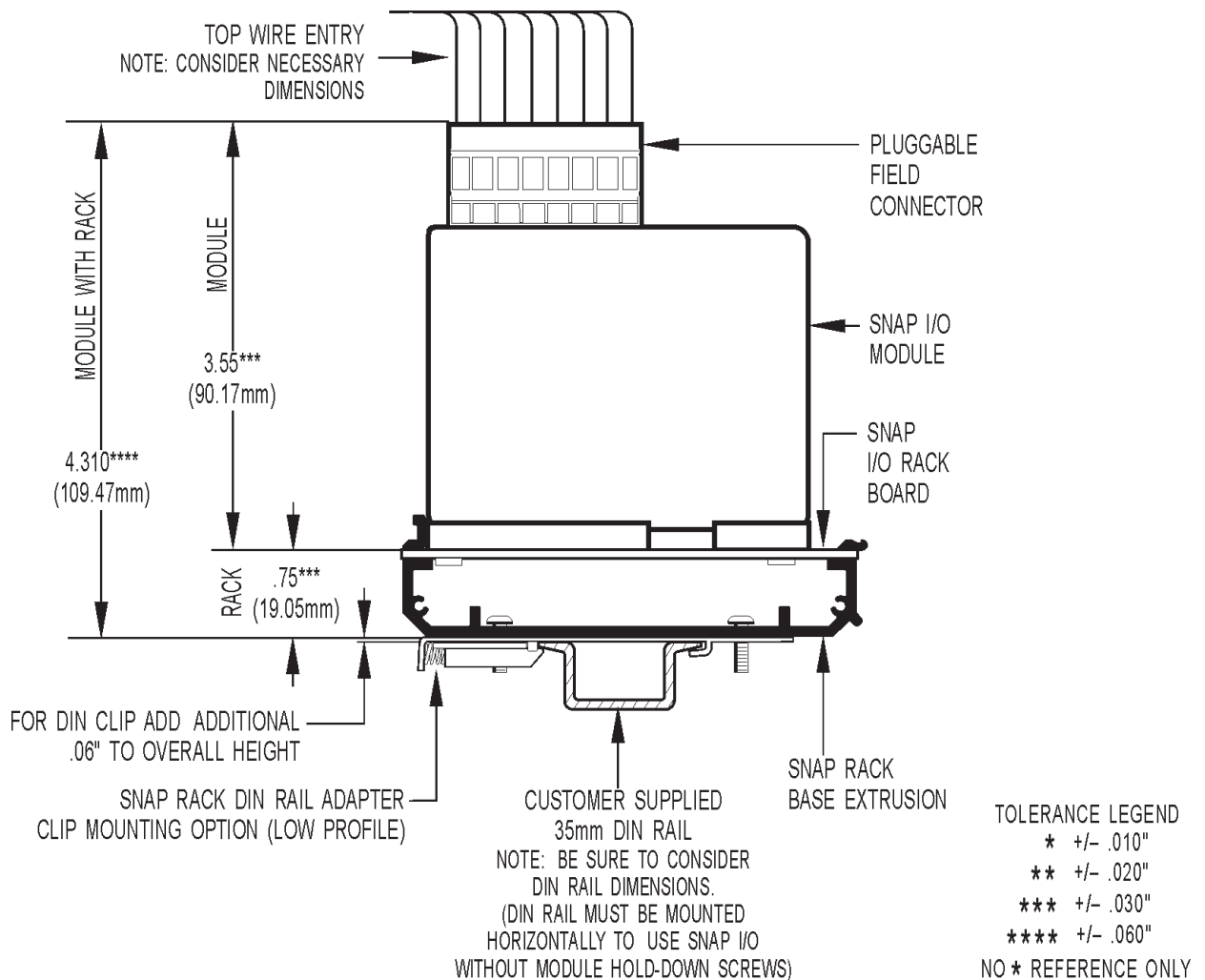


#### Overall Length Dimension (All Models)

Part Numbers	Description	(inches)	(mm)
SNAP-D4M	4-module rack	4.19	106.43
SNAP-D6M	6-module rack	5.74	145.8
SNAP-D8M	8-module rack	7.74	196.6
SNAP-D12M	12-module rack	10.74	272.8

### Dimensional Drawing All Models

Right Side View (With Customer-supplied Din Rail Option)

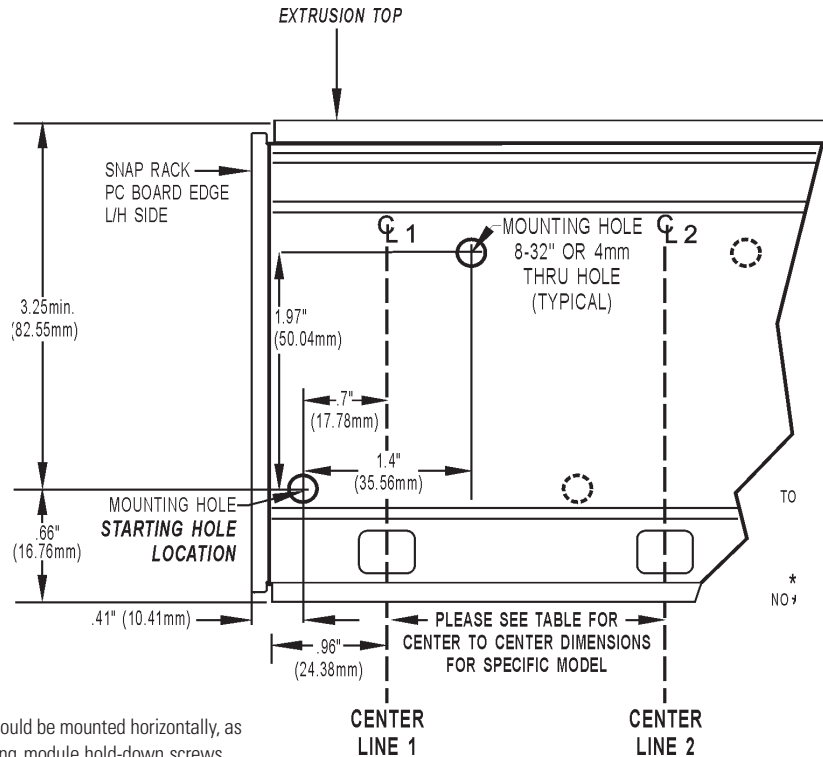


Form 777-010124

### 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<sub>1</sub> mounting hole positions. (CL<sub>1</sub> 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-D4M	4-module rack	1.98"	2
SNAP-D6M	6-module rack	3.53"	2
SNAP-D8M	8-module rack	5.53"	2
SNAP-D12M	12-module rack	4.26"	3