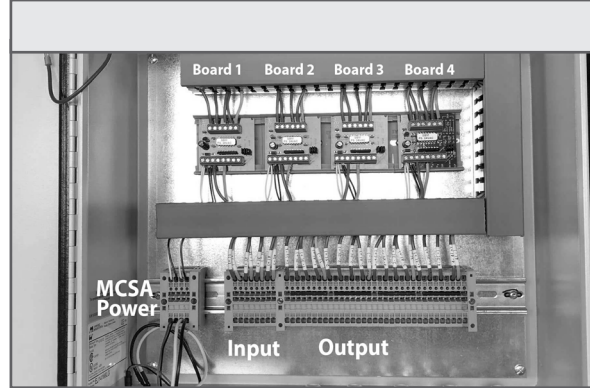
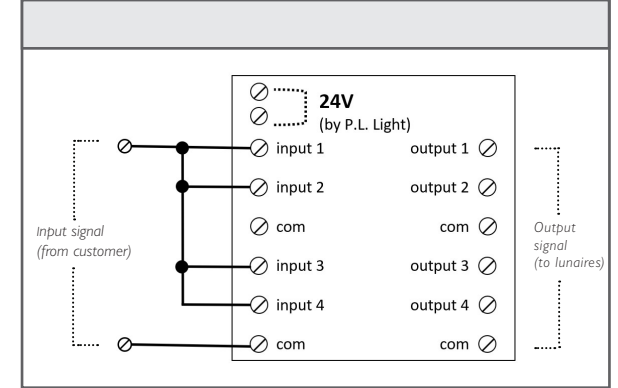


- A MCSA box
- B 24V DC Power Supply w/plug
- C Strain Reliefs (dimming cables)
- D Indicator Light
- E Power Input
- F Mounting Tab



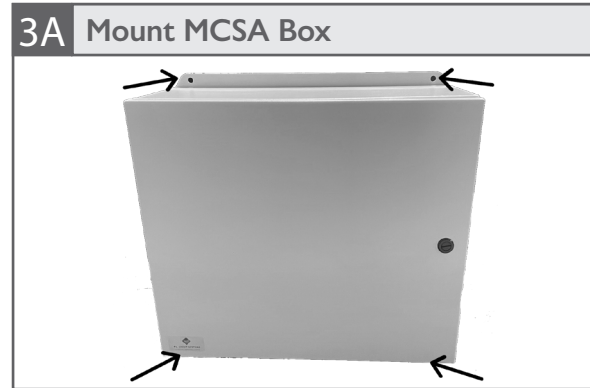
- The default configuration for the MCSA is with four 4-channel signal boards.



- Each signal board can accommodate up to four (4) inputs and four (4) outputs.



- Remove MCSA from packaging.
- Ensure plug and transformer are disconnected.
- Turn off and lock out the branch circuit before commencing installation or maintenance work.



- Holding the MCSA box in desired location, mark position of the holes on the mounting surface, using the mounting tabs (top and bottom of MCSA box).
- Set MCSA box aside and drill holes in marked locations. Insert anchors into holes if required.

Note: MCSA should be mounted in dry location, away from direct exposure to water.



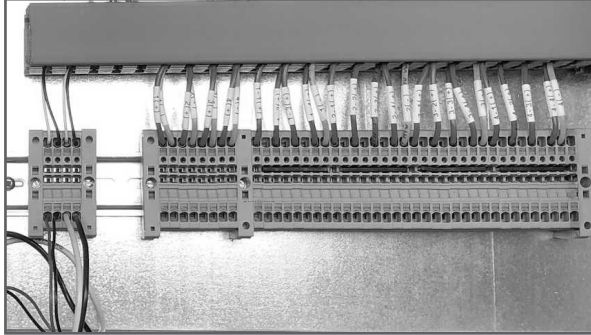
- Align mounting tabs (top and bottom) with drilled holes.
- Insert one screw into each hole and tighten with a screwdriver until MCSA box is securely attached to the mounting surface.

Note: Customer to supply mounting hardware.

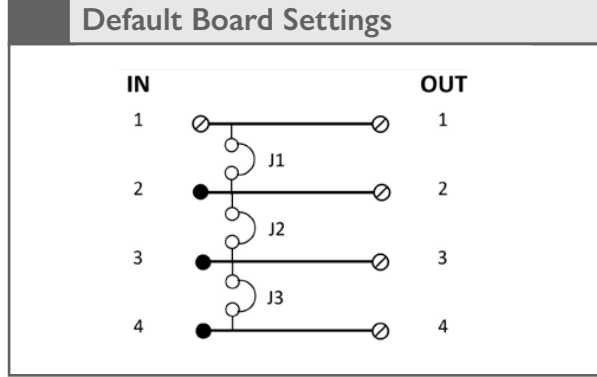
1 ATTENTION: Install in accordance with national and local building and electrical codes. 1



4 Complete Input and Output Signals

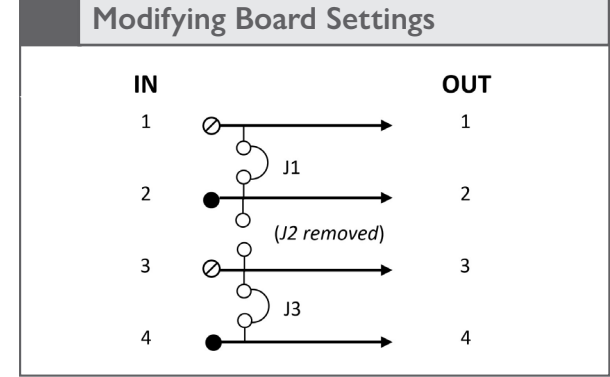


- Terminate customer supplied 1-10V dimming cable to each input terminal blocks.
- Wire and terminate each board output to the luminaires.
- Refer to terminal wire connections image on next page.



- The default setting for each board is for single-channel control, with all three (3) pre-installed jumpers in place—allowing for one (1) input signal to control all four (4) output signals.

Note: purple = positive (+); grey = negative (-)



- To modify the number of channels used, simply remove the relevant jumpers on the board. For example, if two control-amplifying channels are required, then simply remove J2 from the board (see Modified Setting example above).

Note: 10 kΩ resistor is required for unused outputs from the signal board.

NOTES:

Refer to light plan for quantity of luminaires per channel.

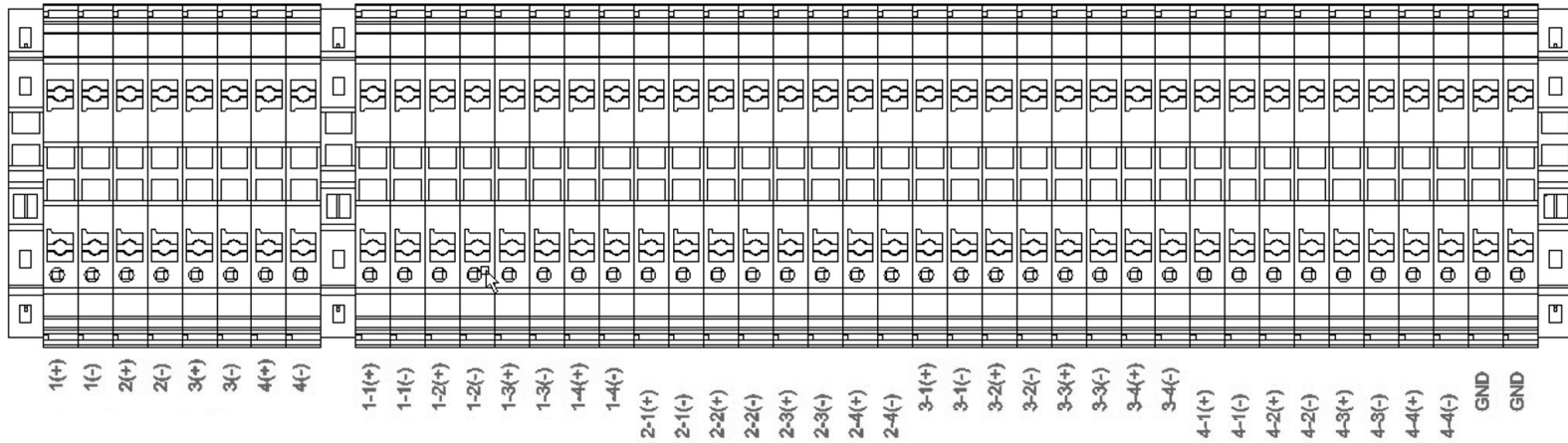
Refer to light plan for configuration of control/grouping of luminaires.

1-10V sink or source (input and output protocols must be the same for each channel) based on jumper selection.

Consult with a local certified electrical contractor for a suitable dimming cable. Specifications to consider include safety certifications; UV rated; voltage rating, temperature rating of ≥90°C; and should be 18 gauge twisted pair with foil.



Terminal Wire Connections



INPUTS - Board I-4

OUTPUTS

I-1, Board I, Channel 1
 I-2 Board I, Channel 2
 Etc.

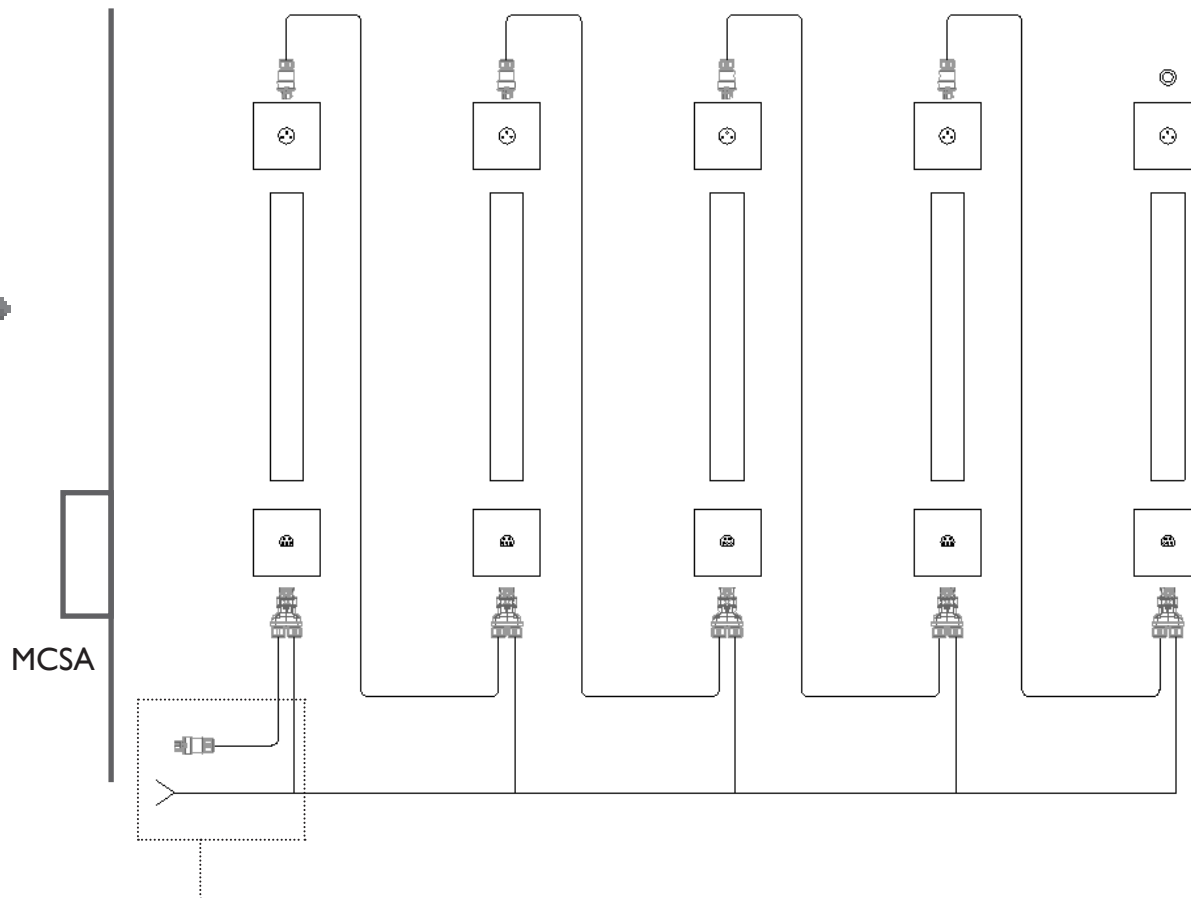
NOTES:

- Exceeding 10V or 20 mA on any channel may result in permanent board damage.
- Input Configuration: 1-10V sink or source (input and output protocols must be the same for each channel) based on jumper selection.
- Output Configuration: 1, 2, 3 or 4 channels that duplicate the input channel, based on jumper selection.
- Consult with a local certified electrical contractor to determine the maximum 0-10V wire length per run.
- Refer to luminaire installation instructions for direct wiring on daisy-chain options.

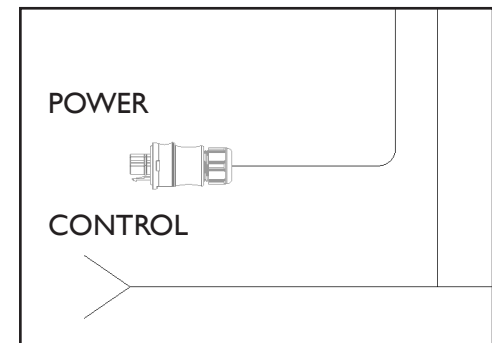


HORTILED TOP 2.0

	Max # Luminaires / MCSA			
	# 4-Channel Signal Boards in MCSA			
	1 board	2 boards	3 boards	4 boards <small>Default Configuration</small>
HortiLED Top 2.0	100	200	300	400



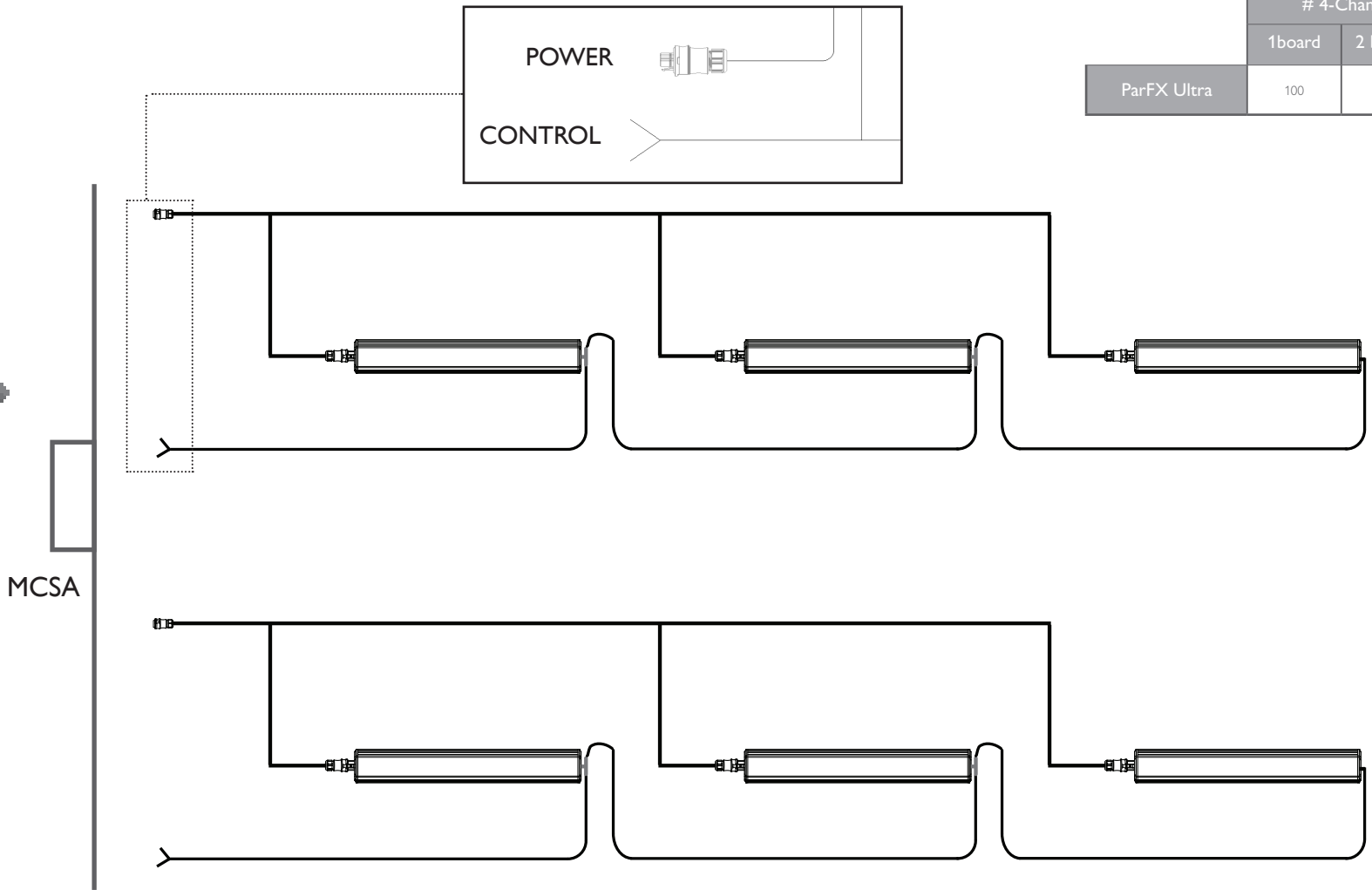
NOTES:
 Refer to light plan for quantity of luminaires per channel.
 Refer to light plan for configuration of control/grouping of luminaires in racking system / grow room / greenhouse.





ParFX Ultra / Ultra Plus

Max # Luminaires / MCSA				
# 4-Channel Signal Boards in MCSA				
	1 board	2 boards	3 boards	4 boards <small>Default Configuration</small>
ParFX Ultra	100	200	300	400

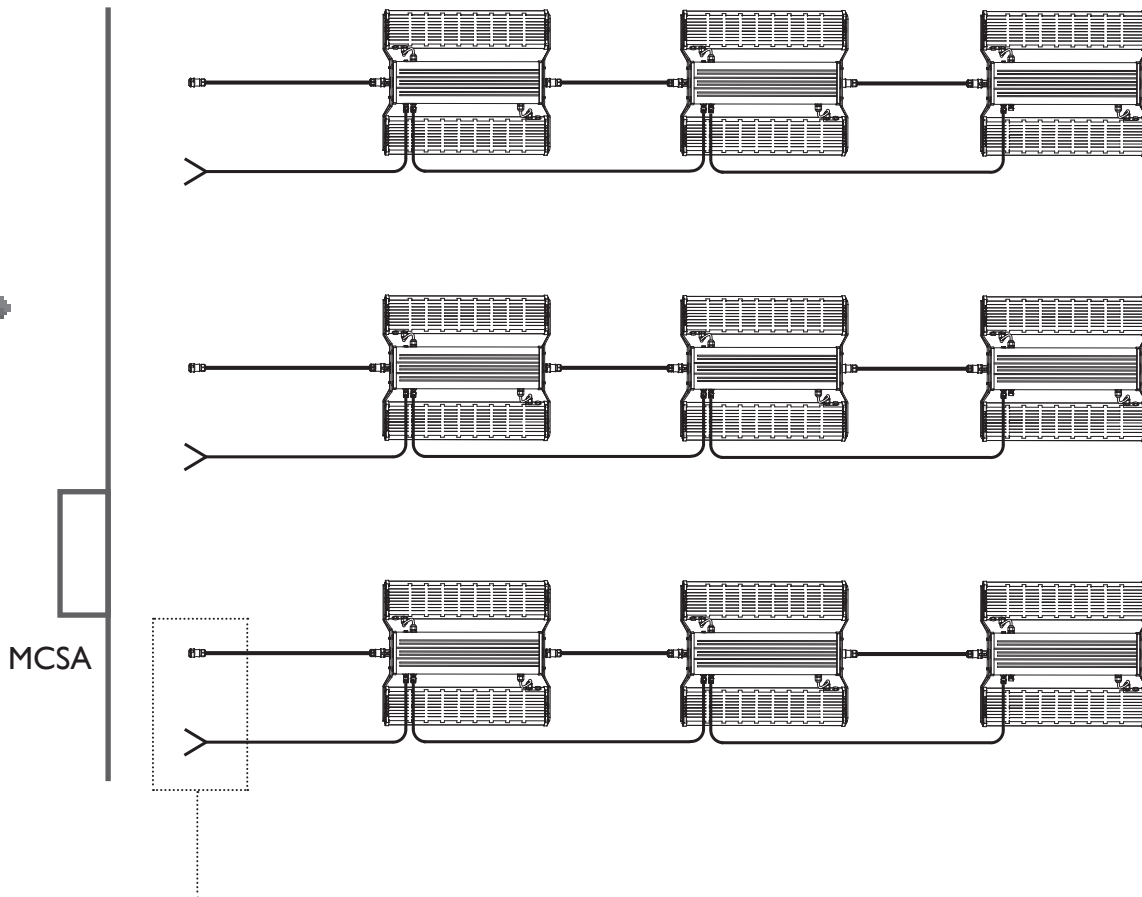


NOTE: Refer to light plan for quantity of luminaires per channel. Refer to light plan for configuration of control/grouping of luminaires in racking system / grow room / greenhouse.

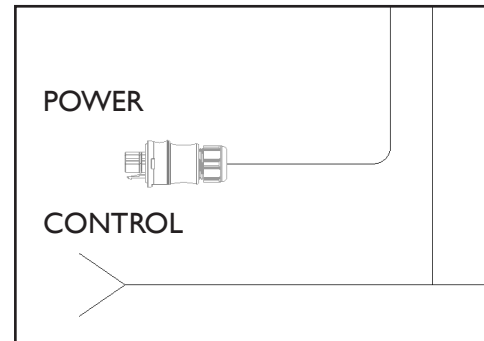


TriPlane

Max # Luminaires / MCSA				
# 4-Channel Signal Boards in MCSA				
	1board	2 boards	3 boards	4 boards <small>Default Configuration</small>
TriPlane	100	200	300	400



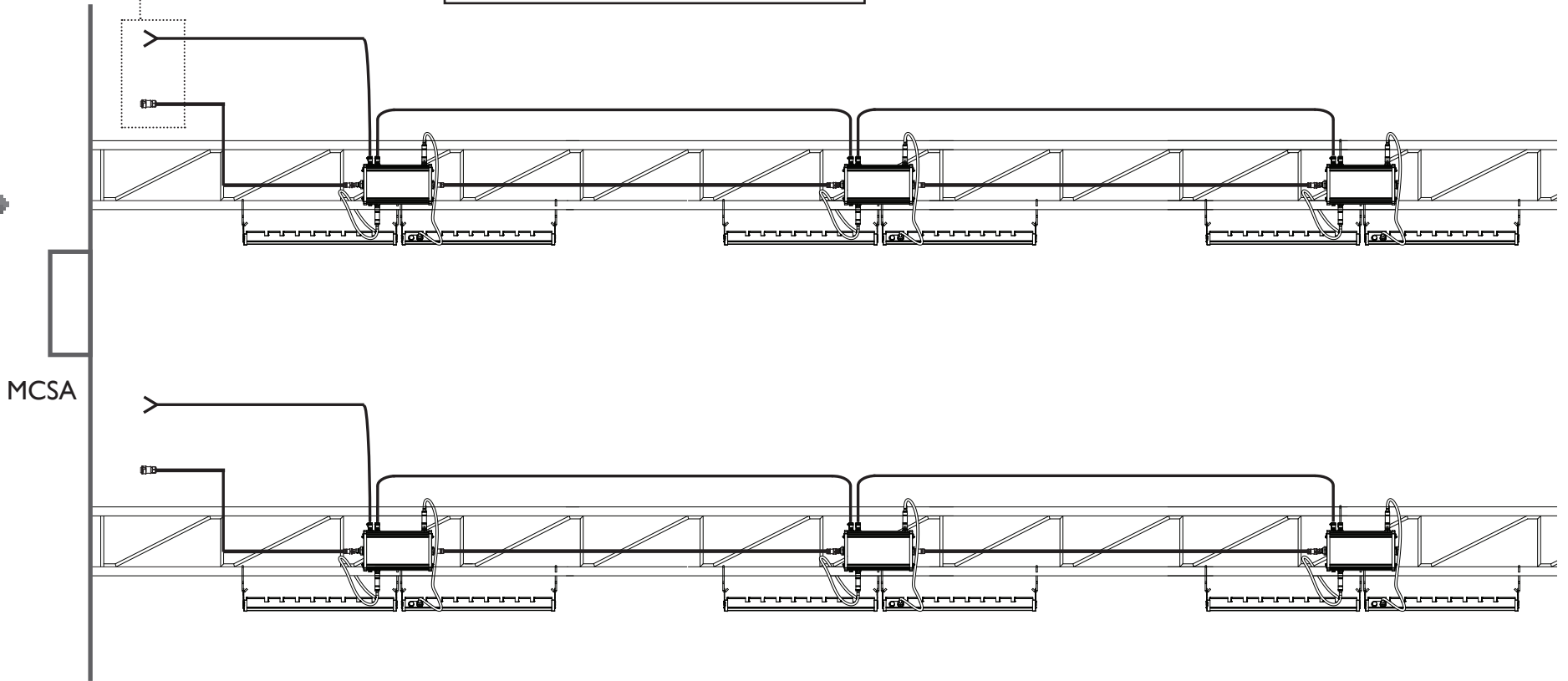
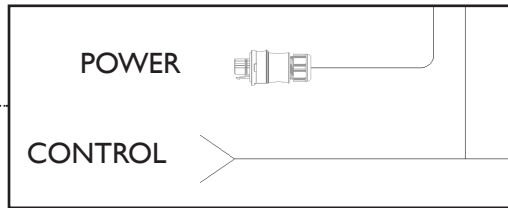
NOTES:
 Refer to light plan for quantity of luminaires per channel.
 Refer to light plan for configuration of control/grouping of luminaires in racking system / grow room / greenhouse.





TriPlane Linear

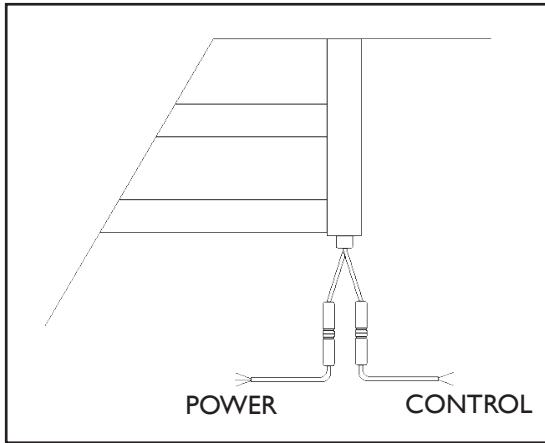
Max # Luminaires / MCSA				
# 4-Channel Signal Boards in MCSA				
	1 board	2 boards	3 boards	4 boards <small>Default Configuration</small>
TriPlane Linear	100	200	300	400



NOTE: Refer to light plan for quantity of luminaires per channel. Refer to light plan for configuration of control/grouping of luminaires in racking system / grow room / greenhouse.

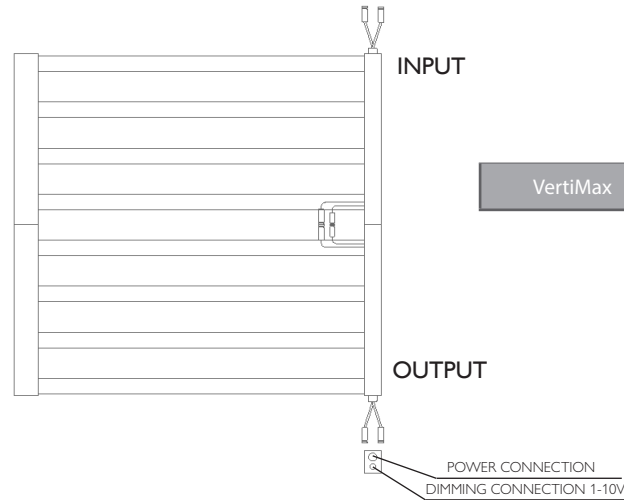


VERTIMAX



Connect to customer power supply

Connect to MCSA



	Max # Luminaires / MCSA			
	# 4-Channel Signal Boards in MCSA			
	1 board	2 boards	3 boards	4 boards <small>Default Configuration</small>
VertiMax	44	88	132	176

NOTES:

Refer to light plan for quantity of luminaires per channel.

Refer to light plan for configuration of control/grouping of luminaires in racking system.

