

Dome20 Dynamic Surface RGB Pixel

Key Features



Wide-Angle
Viewing



.75" Dome (20mm)
Diameter



Easy Installation and
Maintenance



Full-color
RGB pixels



Dust and
Waterproof



24 Month
Warranty



RoHS Certified and Built
to CE, UL, ETL Standards



Presenting Dome20

Our extremely versatile **Dome20** LED pixel from Vivid RGB Lighting is a sleek and cost effective RGB media solution. **Dome20** packs vibrant color technology into a compact, all-weather, easy-to-install package. Engineered for quick installation and easy maintenance, **Dome20** pixels are a great way to add high-impact RGB animation to your event, retail space, or nightclub.

Dynamic, Powerful, Flexible!

Dome20 has a fully customizable wiring system that makes your installation easy as a breeze. Our wiring system uses a hub type distribution block and allows for virtually unlimited flexibility. The **Dome20** system allows you to design without limitations.

Contact one of our team members to assist you in laying out your next system of dynamic powerful lighting!



Many Applications

- Light Shows
- Large-Scale Video Installations
- Signage
- Trade Shows
- Retail Interiors
- Concerts and Events
- Decorative Elements
- Architectural Accents
- Parade Floats
- Nightclubs
- TV Production

Further Reading

Visit us online for the most up-to-date product information:

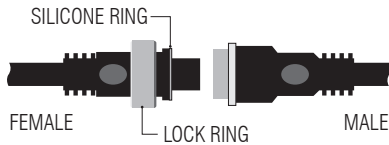
www.VividRGBLighting.com



Dome20 Dynamic Surface RGB Pixel

Connector Options

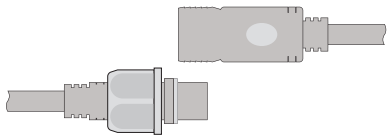
3-PIN keyed aviation-style connector with weathertight lock ring.



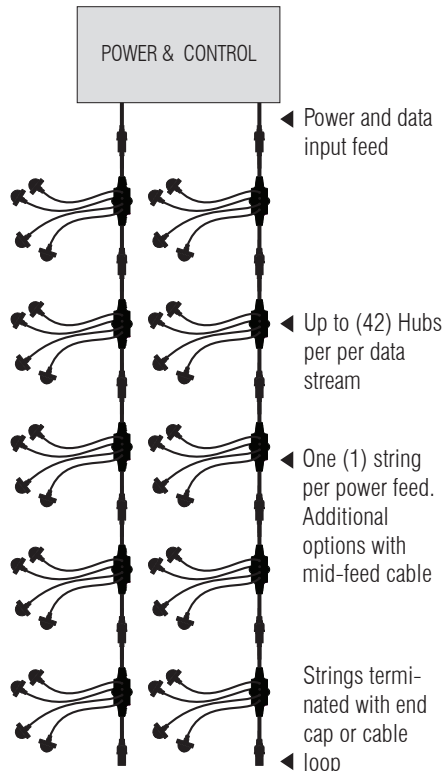
3.5mm connector for applications (indoor only)



5V plastic molded connector (indoor or outdoor)



System Overview

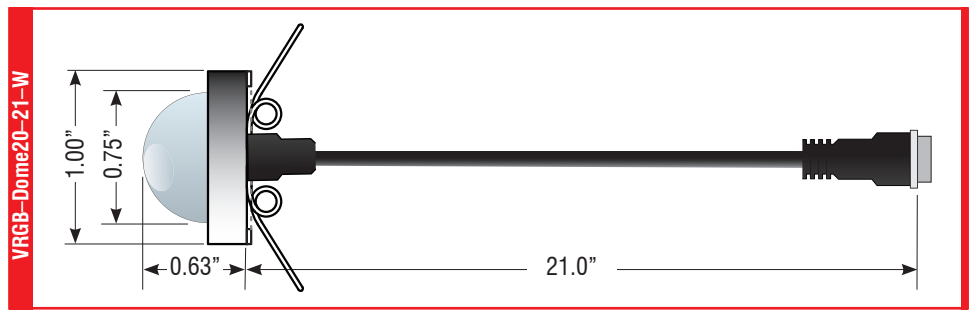


Revised 07/30/2020

Standard Configurations Part No. VRGB-Dome20-21-W

Each **Dome20** is an individual and independent module. Each module has a UV resistant lens and stainless steel housing covering fully epoxy encased electronics. A stainless steel spring holds the fixture in place. We have the ability to build this module where the **Dome20** head detaches directly from the cable, or the cable is hard wired directly to the circuit board in the head. (see page 5) Speak to our Engineers about the best solution for your project.

The Dome20 lens is .75" (20mm). The stainless steel ring and spring retention system makes installation easy and give a beautiful finished appearance.



Technical Specifications*

OUTPUT	LUMEN MAINTENANCE	25,000+ hours
	LED CHANNELS	Red, Green, Blue
	GRAYSACLE	256, 8-bit
ELECTRICAL	INPUT VOLTAGE	5V DC
	POWER	0.3 W / pixel
CONTROL	INTERFACE	1-wire 1804 Fast Bus
	CONTROL SYSTEM	DSD, VPD, Color Mimic, or compatible third-party Pixel Driver
PHYSICAL	TEMPERATURE RANGES	-20°C – 50°C / -4°F – 122°F
	HUMIDITY	Any
SAFETY	ENVIRONMENT	Dry, damp, wet locations; IP66

*Due to continuous improvements and design innovations, specifications subject to change without notice.

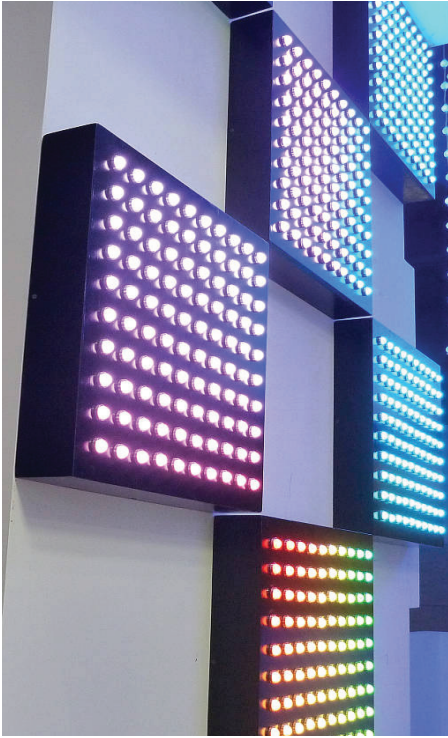
Build-to-Order Configurations

Minimum Order Quantity: 200 pixels per configuration
Production Lead Time: 8 weeks after receipt of order

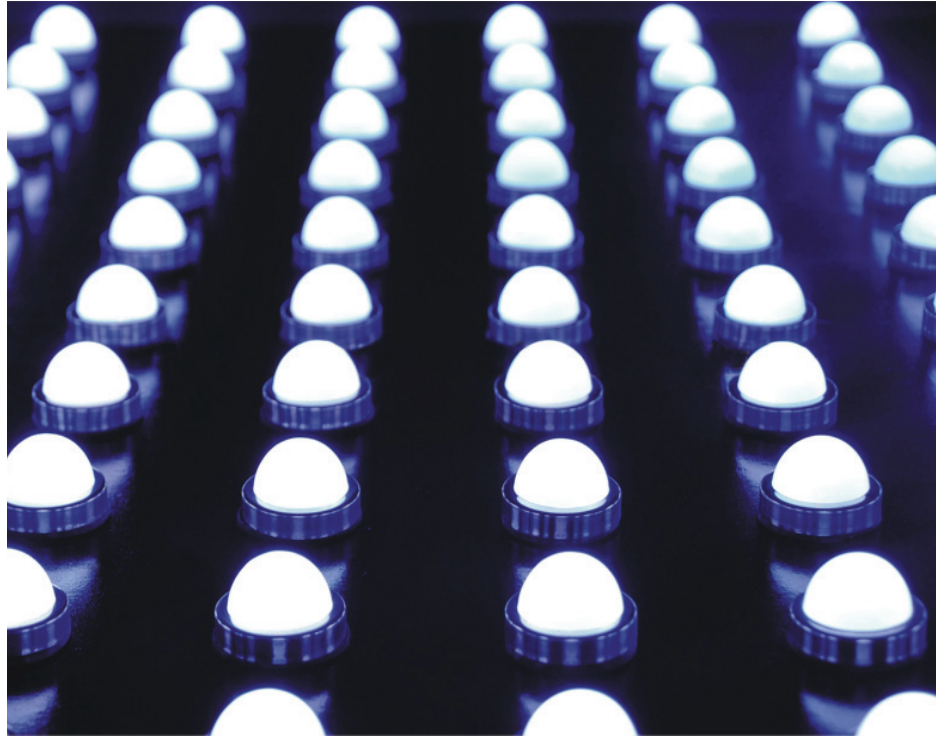
Custom options available for:

- Input/Output length per hub, specific to your design
- Fixture head lead length, specific to your design
- Detachable head or inline wire connections, specific to your design
- Cable color (black or white) and length





Dome20 Wall Installation



Dome20 Installation Detail



Dome20 Wall Installation



Dome20 Ceiling Installation



Typical Wiring Instructions

Input cables connect to controller and power supply providing a common ground between them.

Extension cables extend distances between components.

End caps provide a waterproof termination at the end of each string.

Dome20 String Power

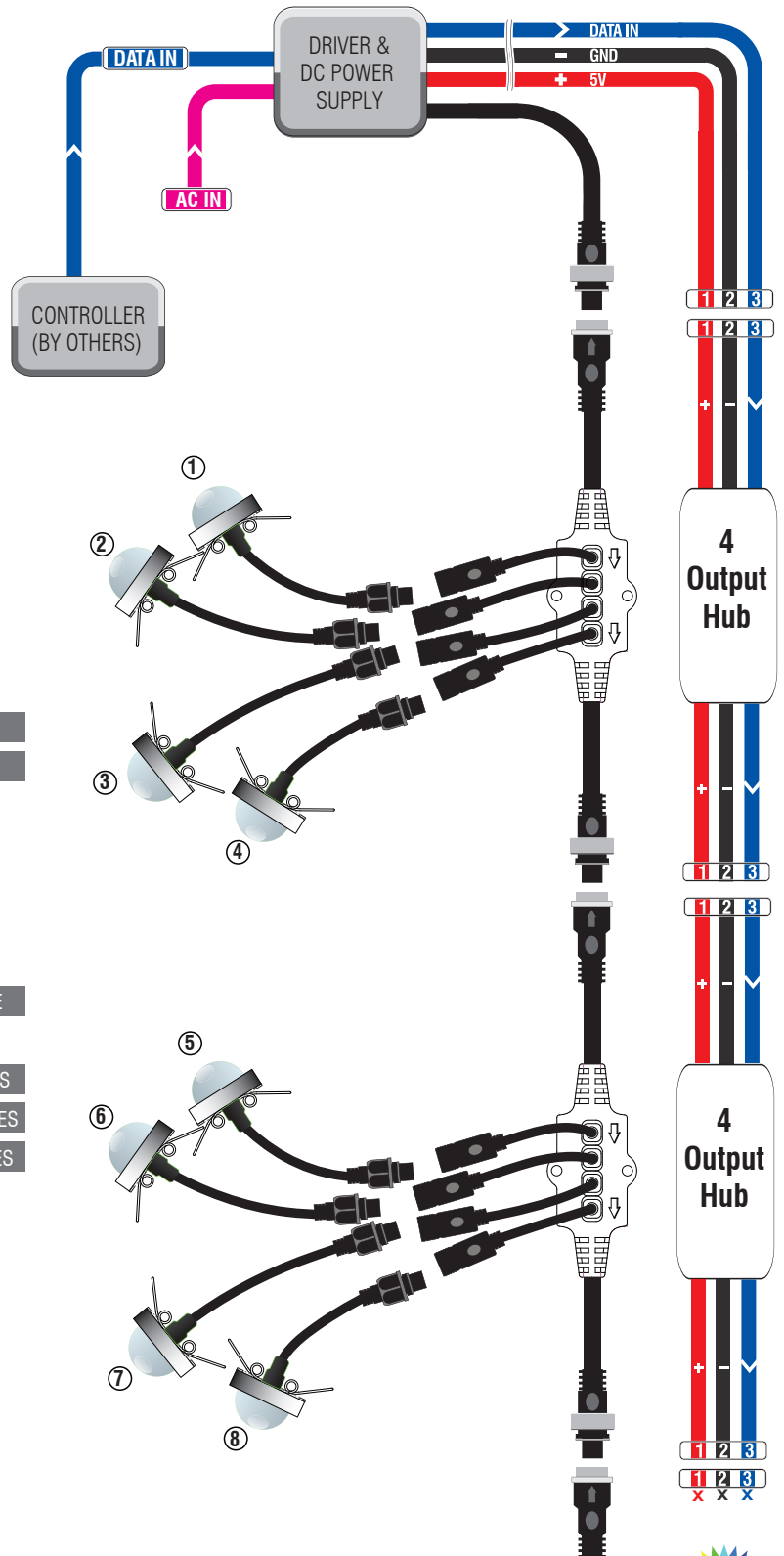
- Use total watts to determine necessary power supply capacity.
- Maximum power draw is 0.3 W per pixel at 5 V DC.

STRINGS	AMPS @ 5V	TOTAL WATTS	
1	1.40 A	7.00 W	ONE STRING
2	2.80 A	14.00 W	TWO STRINGS
3	4.20 A	21.00 W	
4	5.60 A	28.00 W	
5	7.00 A	35.00 W	
6	8.40 A	42.00 W	
7	9.80 A	49.00 W	
8	11.20 A	56.00 W	ONE UNIVERSE
<hr/>			
16	22.40 A	112.00 W	TWO UNIVERSES
24	33.60 A	168.00 W	THREE UNIVERSES
32	44.80 A	224.00 W	FOUR UNIVERSES

NOTES
 Figures in this chart allow for 5% headroom.
 Typical per-pixel wattage is 0.3 W.

IMPORTANT
 Keep the power supply as close as possible to the strings to minimize voltage drop. Excessive voltage drop will cause color shift and/or intermittent operation.

Due to continuous improvements and design innovations, specifications subject to change without notice.



Design Options

Design Options:

Dome20 can be built in two variations:

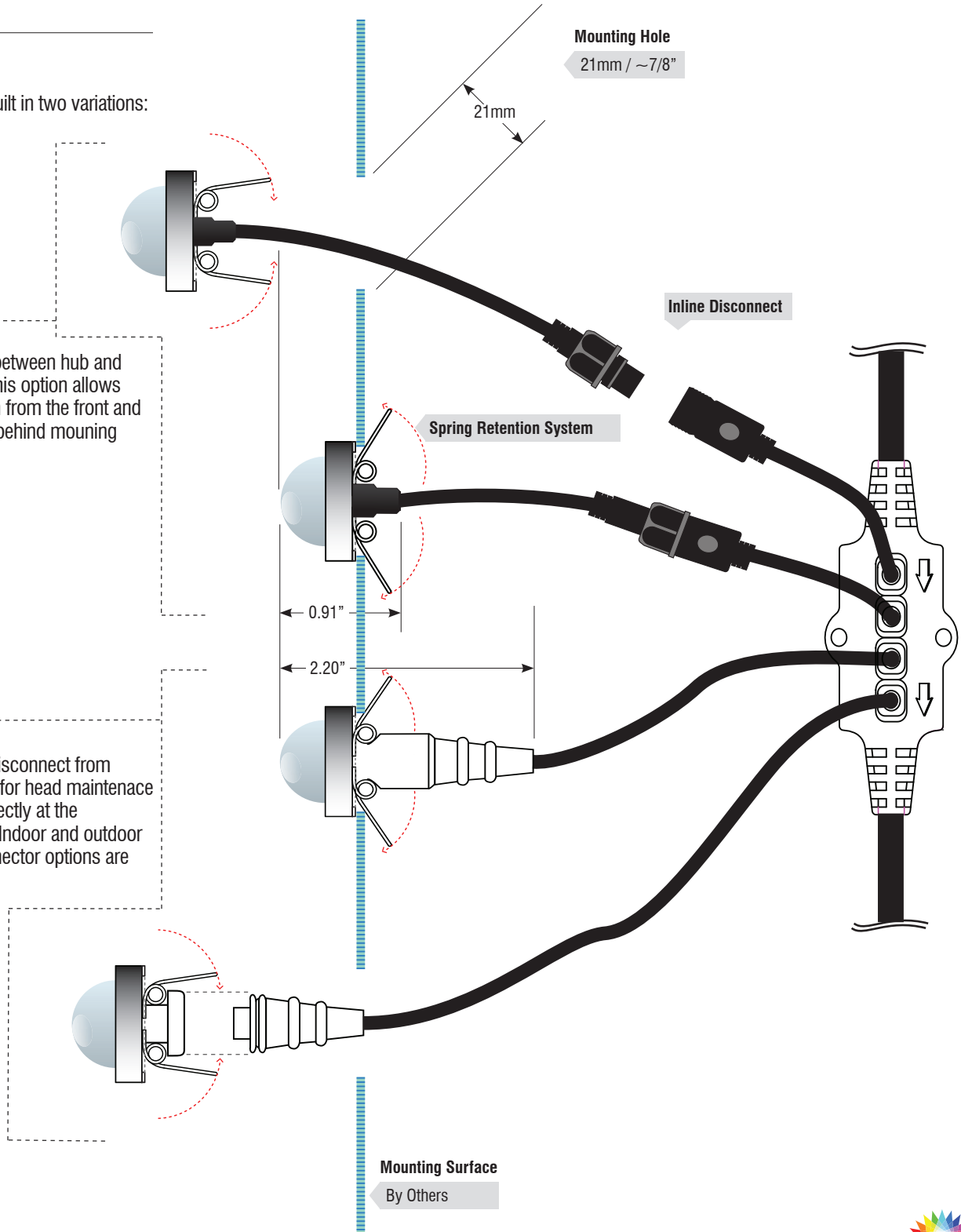
Option A:

Inline connection between hub and the fixture head. This option allows for fixture insertion from the front and wiring to be done behind mounting surface

Option B:

Fixture head can disconnect from cable. This allows for head maintenance and installation directly at the mounting surface. Indoor and outdoor weatherproof connector options are available.

Build Options



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System Accessories & Part Numbers

System Input Cable

Bare ends connect to controller and power, female end connects to strings.

Stock:

3PIN-FC-36"

*Custom lengths available.

NOTES

Numbers refer to labeled pins in connectors.

System Output Cable

Male end connects to end of strings, bare ends provide data and power output from system.

Stock:

3PIN-MC-36"

*Custom lengths available.

Extension Cables

Through extension of all pins.

Stock:

3PIN-EXT-60" (5 feet)

3PIN-EXT-120" (10 feet)

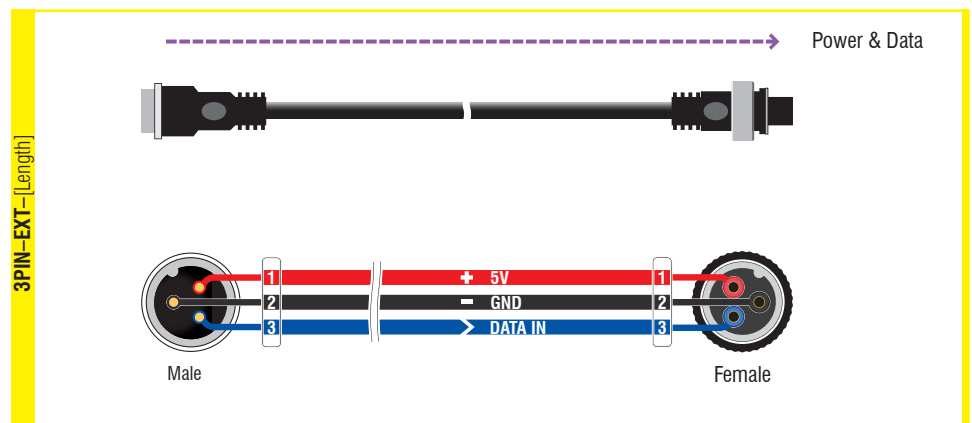
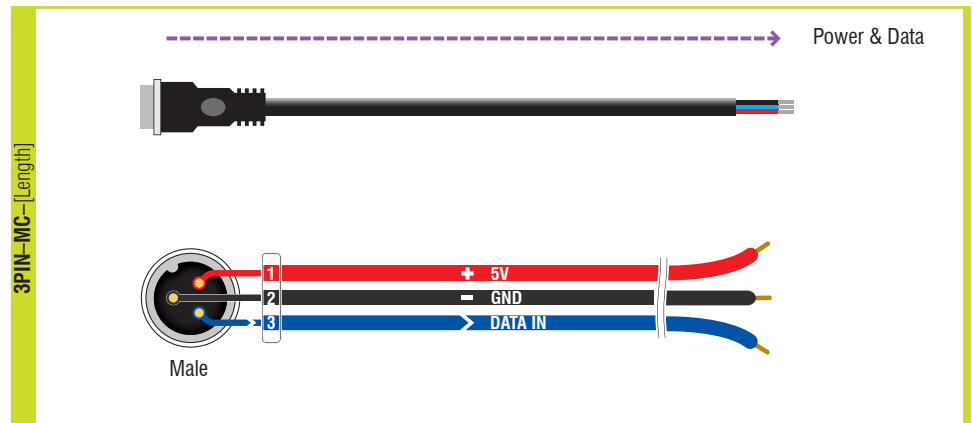
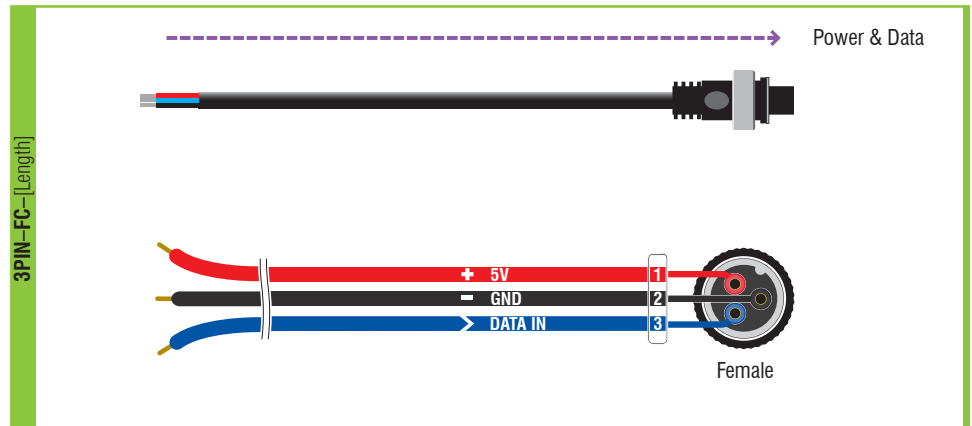
3PIN-EXT-300" (25 feet)

*Custom lengths available.

*Custom / Build-to-Order

All cables and accessories may be custom designed for your project.

Vivid RGB Lighting's **5-Volt** products use our **3-PIN** accessory cables and products. Please contact customer support with product compatibility concerns.



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End Caps

Seals cable end with a waterproof cap or hanging loop.

Stock:

3PIN-EC

3PIN-EL-5"

*Custom loop lengths available.

NOTES

5 volt products do not incorporate a data return

Mid-Feed Power Input

Allows for power to be input between strings on same data stream.

Stock:

3PIN-MF-12"

*Custom lengths available.

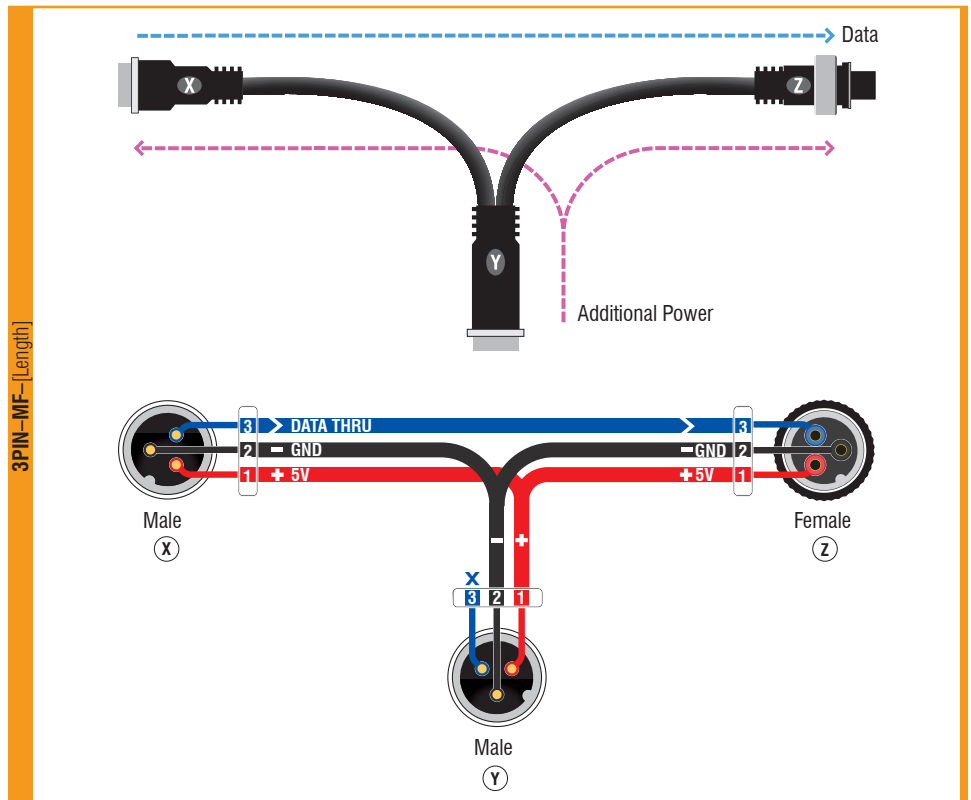
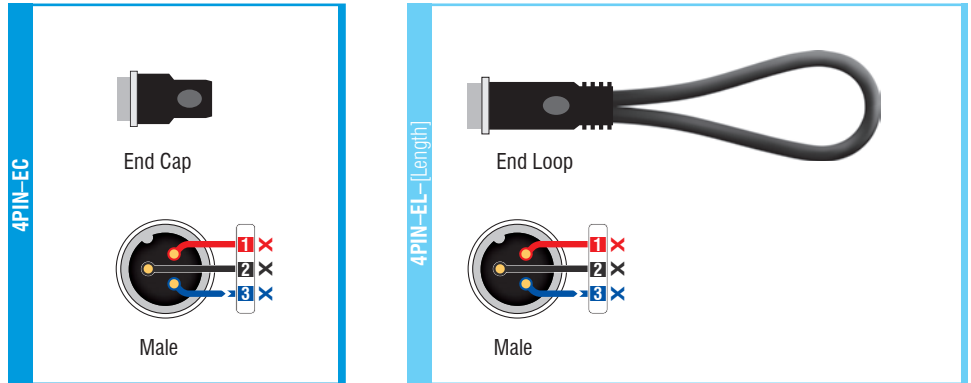
X: Data input from previous string

Y: Additional power input

Z: Power and data output to next string(s)

NOTE

3PIN mid-feed cables supply power to both the input and output strings.



Important

Our systems use 3-, 4-, and 6-PIN connectors for different control data and power voltages. **Please do not interconnect.**



*Custom / Build-to-Order

All cables and accessories may be custom designed for your project.

