VIVID RGB LIGHTING

Key Features

Triple Brightness

Overmolded Electronics

.25in / 6mm **Slim Enclosure**

Center Mounting Hole

Full-color RGB pixels

IP64 **Dust- and Water Resistant**

24 **24 Month Warranty**

CERT **RoHS Certified and Built to CE, UL, ETL Standards**

Many Applications

• Light Shows
• Signage
• Building Facades
• Trade Shows
• Retail Interiors
• Concerts and Events
• Decorative Elements
• Architectural Accents
• High Brightness Video Installations
• Light Boxes

Further Reading

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

www.VividRGBlighting.com

Presenting Chip3

Proven power, **Chip3** from Vivid RGB Lighting partners three super-bright, surface-mounted RGB LEDs with a thin-profile housing for applications where bright, directional light is needed in a sexy slimline package.

Chip3 is capable of displaying over 16 million colors per pixel. Controlling it is simple using direct DMX, making it compatible with almost any control system. Or, organize your pixels with one of our VPD controllers for a turnkey system. The integrated center mounting hole lets **Chip3** maintain a low profile and fit seamlessly into your project.
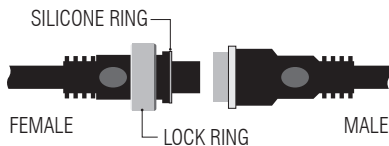
Big Light in an UltraSlim Package!

Perfect for architectural lighting and signage applications, **Chip3** is at home in any environment.
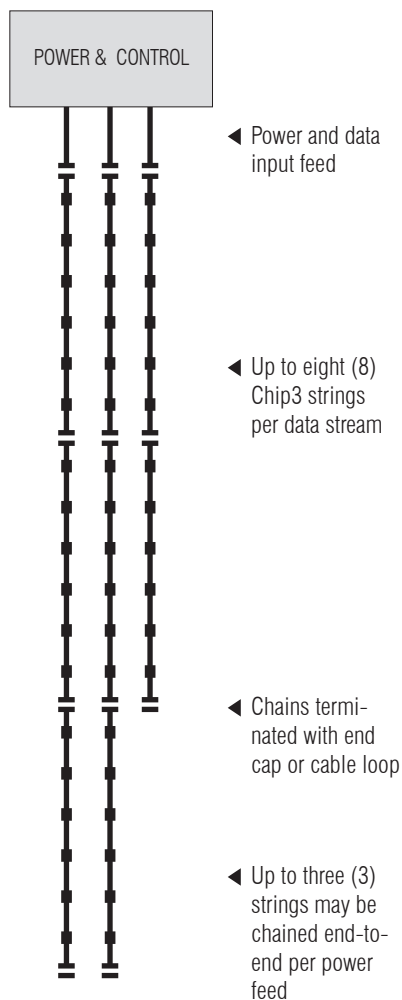
VIVID RGB LIGHTING

Connectors

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

SILICONE RING

FEMALE   LOCK RING   MALE

System Overview

POWER & CONTROL

◄ Power and data input feed

◄ Up to eight (8) Chip3 strings per data stream

◄ Chains terminated with end cap or cable loop

◄ Up to three (3) strings may be chained end-to-end per power feed

Standard Configuration Part Order No. CHIP3–21–9"–BB–B

Each string consists of 21 individually-controllable LED pixels, with integrated power and control. Black housing and black wire with 9" on-center pixel spacing, 15'-9" overall length. Connected strings maintain even pixel spacing.

Ultraslim pixel enclosures with center mounting hole, sealed for maximum fixture life and IP64 rated for outdoor applications.

12V–CHP3-21–9"–BB–B

1.5"   1.875"

9"
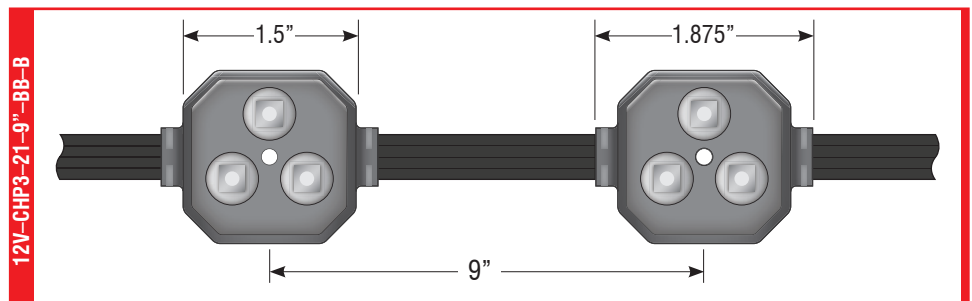
Technical Specifications*

	LED CHANNELS	Red, Green, & Blue
	INPUT VOLTAGE	12V DC
	INTERFACE	1-Wire DMX512
	TEMPERATURE RANGES	-20ºC – 50ºC / -4ºF – 122ºF
	ENVIRONMENT	Dry & damp, water resistant; IP64

*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:
- Pixel count per string, specific to your design
- Cable length and spacing
- Black or white circuit board, housings, and/or wire colors
- Other options upon request, call for more information

VIVID RGB LIGHTING

Chip3 Molded Inline UltraSlim RGB Pixels

Typical Wiring Instructions

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

Extension cables extend distances between components.

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

Chip3 String Power

- Use total watts to determine necessary power supply capacity.
- Maximum power draw is 0.7 W per pixel at 12 V DC.

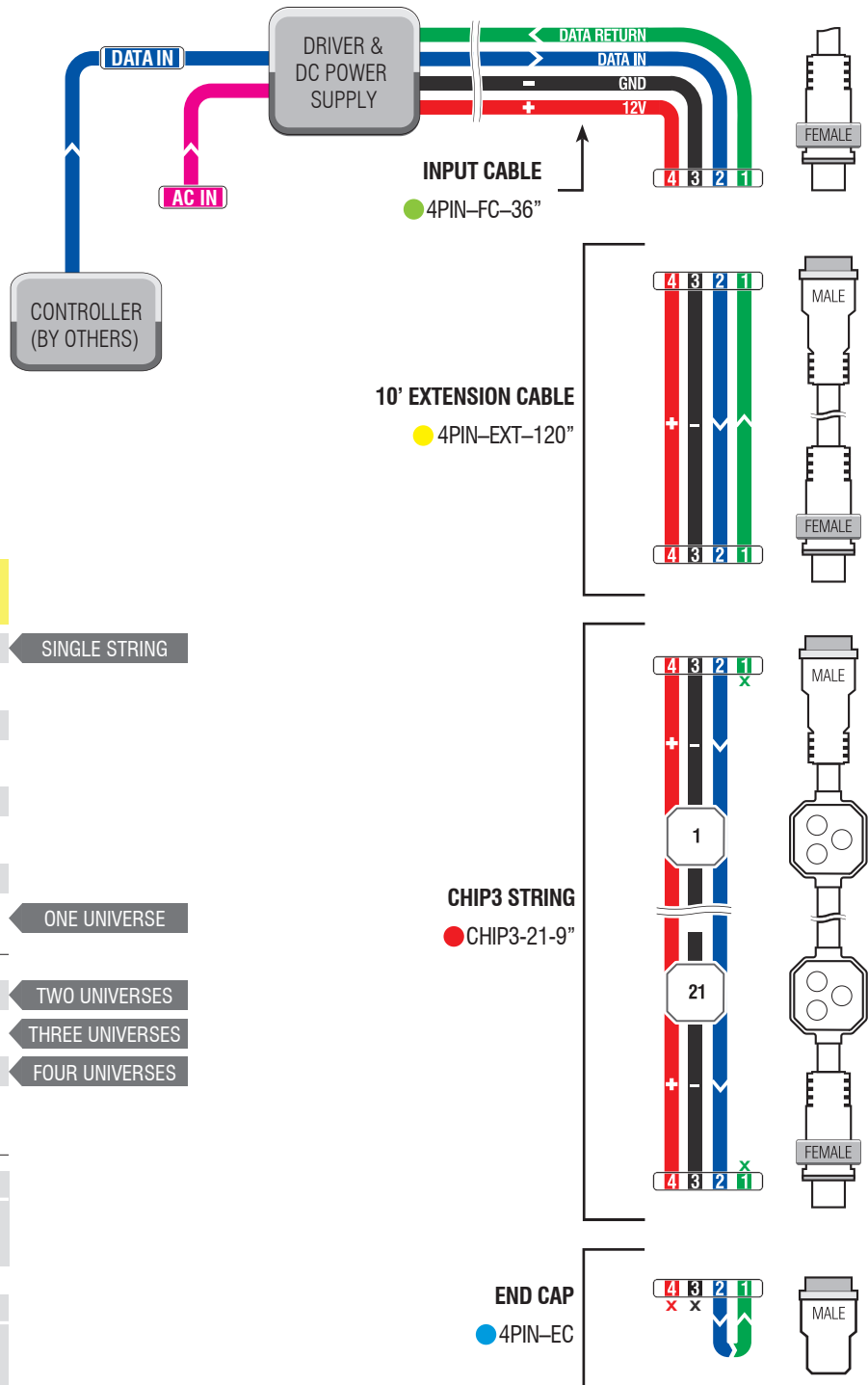| STRINGS	AMPS @ 12V	TOTAL WATTS	
1	1.20 A	14.00 W	SINGLE STRING
2	2.30 A	28.00 W	
3	3.50 A	42.00 W	
4	4.70 A	56.00 W	
5	5.80 A	70.00 W	
6	7.00 A	84.00 W	
7	8.10 A	98.00 W	
8	9.30 A	112.00 W	ONE UNIVERSE
16	18.50 A	224.00 W	TWO UNIVERSES
24	28.00 A	336.00 W	THREE UNIVERSES
32	37.00 A	448.00 W	FOUR UNIVERSES

NOTES

Figures in this chart allow for **5%** headroom.
Typical per-pixel wattage is **0.65 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.

INPUT CABLE
● 4PIN–FC–36"

10' EXTENSION CABLE
● 4PIN–EXT–120"

CHIP3 STRING
● CHIP3-21-9"

END CAP
● 4PIN–EC

Data return feature is not available for CHIP3

VIVID RGB LIGHTING

Chip3 Molded Inline UltraSlim RGB Pixels

System Accessories
& Part Numbers

Vivid RGB Lighting's **12-Volt** products use our **4-PIN** accessory cables and products. Please contact customer support with product compatibility concerns.

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

Stock:

4PIN–FC–36"

*Custom lengths available.

NOTE
Numbers refer to labeled pins in connectors.

Power & Data

4PIN–FC–[Length]

DATA RETURN 1
DATA IN 2
— GND 3
+ 24V 4

Female

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

Stock:

4PIN–MC–36"

*Custom lengths available.

Power & Data

4PIN–MC–[Length]

Male

1 DATA RETURN
2 DATA IN
3 — GND
4 + 24V

Extension Cables
Through extension of all pins

Stock:

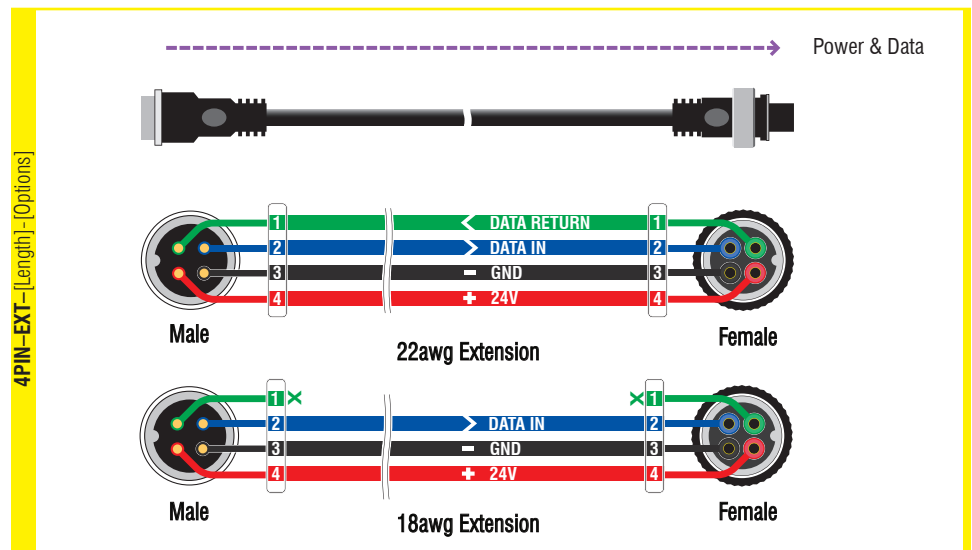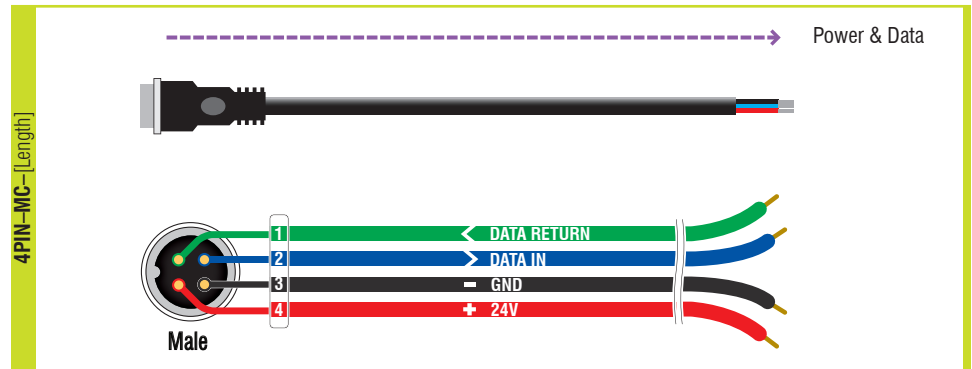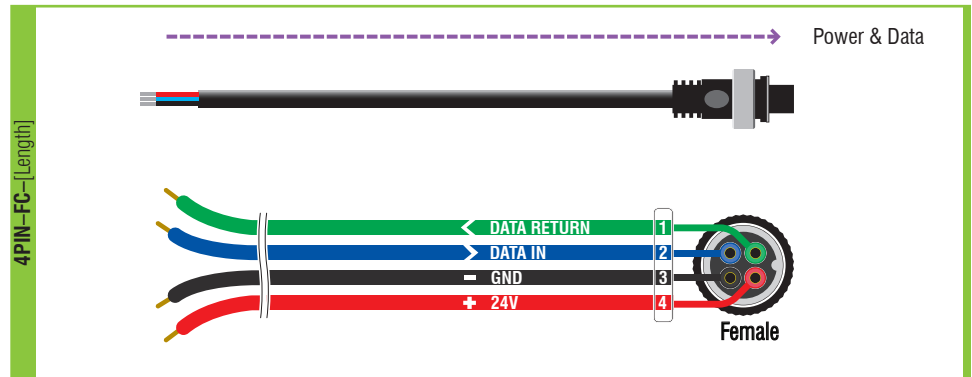|	
4PIN–EXT–60"	**(20awg - 5 feet)**
4PIN–EXT–120"	**(20awg - 10 feet)**
4PIN–EXT–300"	**(20awg - 25 feet)**
4PIN-EXT-120"-3W	**(18awg - 10 feet)**
4PIN-EXT-300"-3W	**(18awg - 25 feet)**
4PIN-EXT-600"-3W	**(18awg - 50 feet)**

*Custom lengths available.

NOTE
18awg extension cables do not return data.

*Custom / Build-to-Order
All cables and accessories may be custom designed for your project.

Power & Data

4PIN–EXT–[Length]–[Options]

Male
1 DATA RETURN 1
2 DATA IN 2
3 — GND 3
4 + 24V 4
Female

22awg Extension

Male
1 ✕   ✕ 1
2 DATA IN 2
3 — GND 3
4 + 24V 4
Female

18awg Extension

End Caps

Seals cable end with a water tight termination and returns data stream to beginning of string.

Available in simple cap or cable loop for easy hanging.

Stock:

| 4PIN–EC |
| 4PIN–EL–5" |

*Custom lengths available.

4PIN–EC

End Cap Data Return

Male

4PIN–EL–[Length]

End Loop Data Return

Male
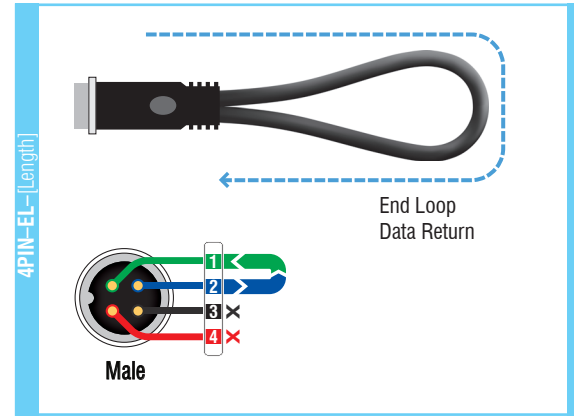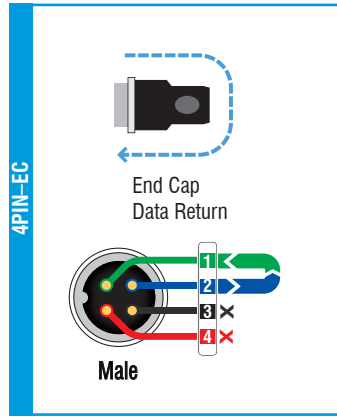
Mid-Feed Power Input

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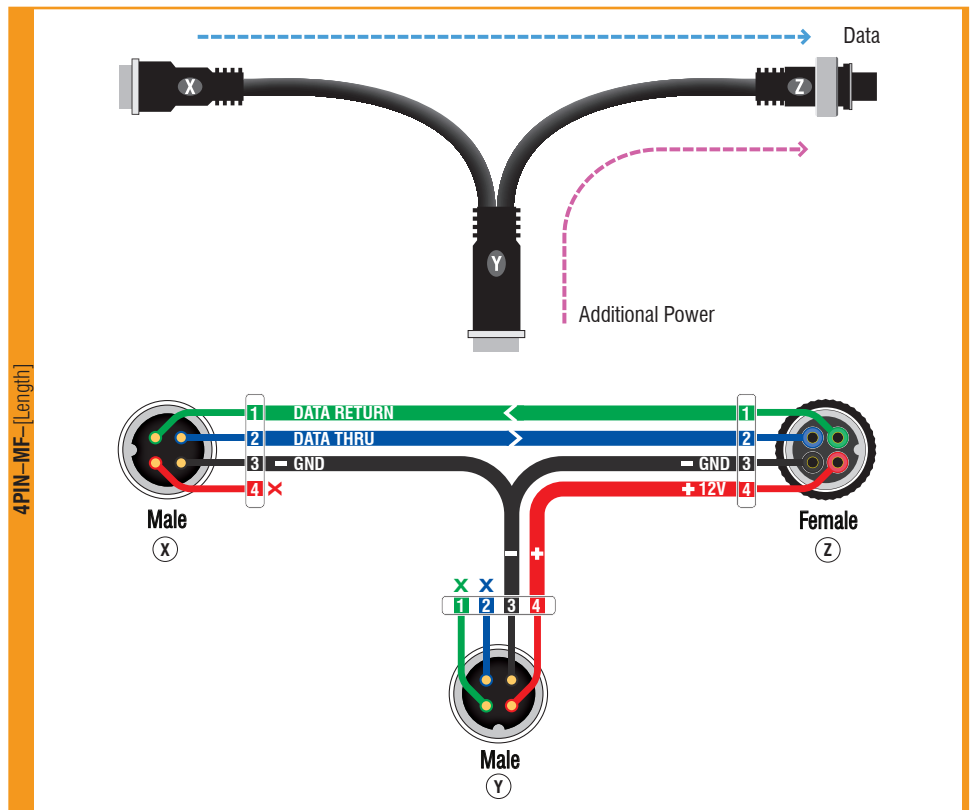
Stock:

| 4PIN–MF–9" |
| 4PIN–MF–12" |

*Custom lengths available.

X: Data input from previous string

Y: Additional power input

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

Data

Additional Power

4PIN–MF–[Length]

1	DATA RETURN
2	DATA THRU
3	— GND
4	✕

— GND 3
+ 12V 4

Male
X

Female
Z

✕ ✕
1 2 3 4

Male
Y

*Custom / Build-to-Order

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

VIVID RGB LIGHTING

V-Cables

Allows strings to be used in parallel on the same power and data stream.

Stock:

| 4PIN–VC–9" |
| 4PIN–VC–18" |
| 4PIN–VC–60" |

*Custom lengths available.

A: Output to first string sequence **(SEE NOTE)**
B: Output to second string sequence
C: Power and data input

NOTE

The last string of the **A** output of the V-Cable must have an end cap **(4PIN–EC or 4PIN–EL)** installed for data to return to the **B** output. If the strings attached to **A** are disconnected, data will not return and be sent to **B**.

Power & Data
Data Return
Power & Data

4PIN–VC–[Length]

Female **A** (SEE NOTE)
Female **B**

DATA IN
DATA RETURN
+12V
GND

Male **C**

T-Connector Single

Allows for power and data to be sent to each a single module. These can be linked together to created custom distribution of power and data.

Stock:

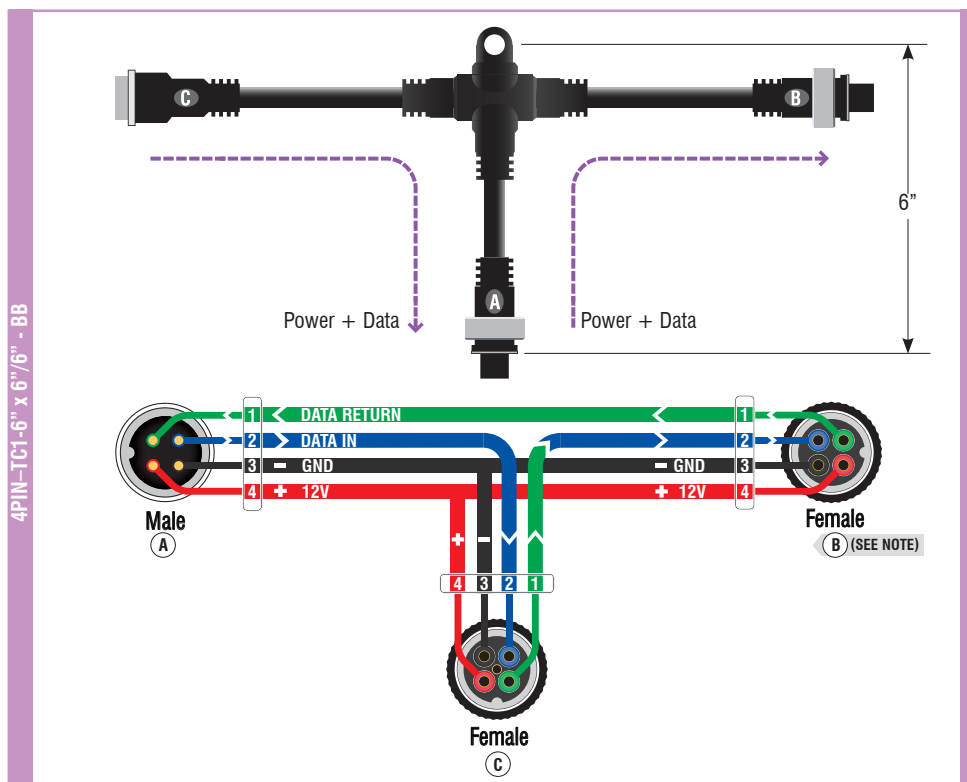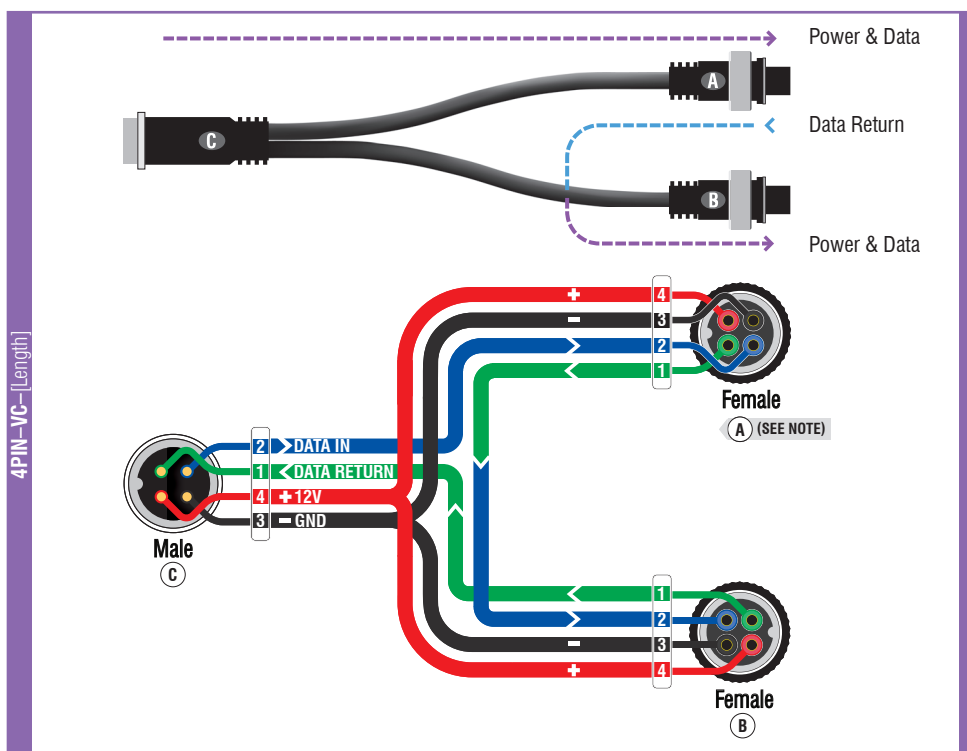| 4PIN–TC1–6" x 6"- 6"/6"- BB |

*Custom lengths available.
(see next page)

NOTE

The last string of the **A** output of the T-Cable must have an end cap **(4PIN–EC or 4PIN–EL)** installed for data to return to the **B** output. If the strings attached to **A** are disconnected, data will not return and be sent to **B**.

*Custom / Build-to-Order

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

6"

Power + Data
Power + Data

4PIN–TC1-6" x 6"/6" - BB

DATA RETURN
DATA IN
GND
+12V

Male **A**
Female **B** (SEE NOTE)
Female **C**

VIVID RGB LIGHTING

T-Connector Cable

Allows for power and data to be sent to each module and can be customized to your project.

Stock Configurations:

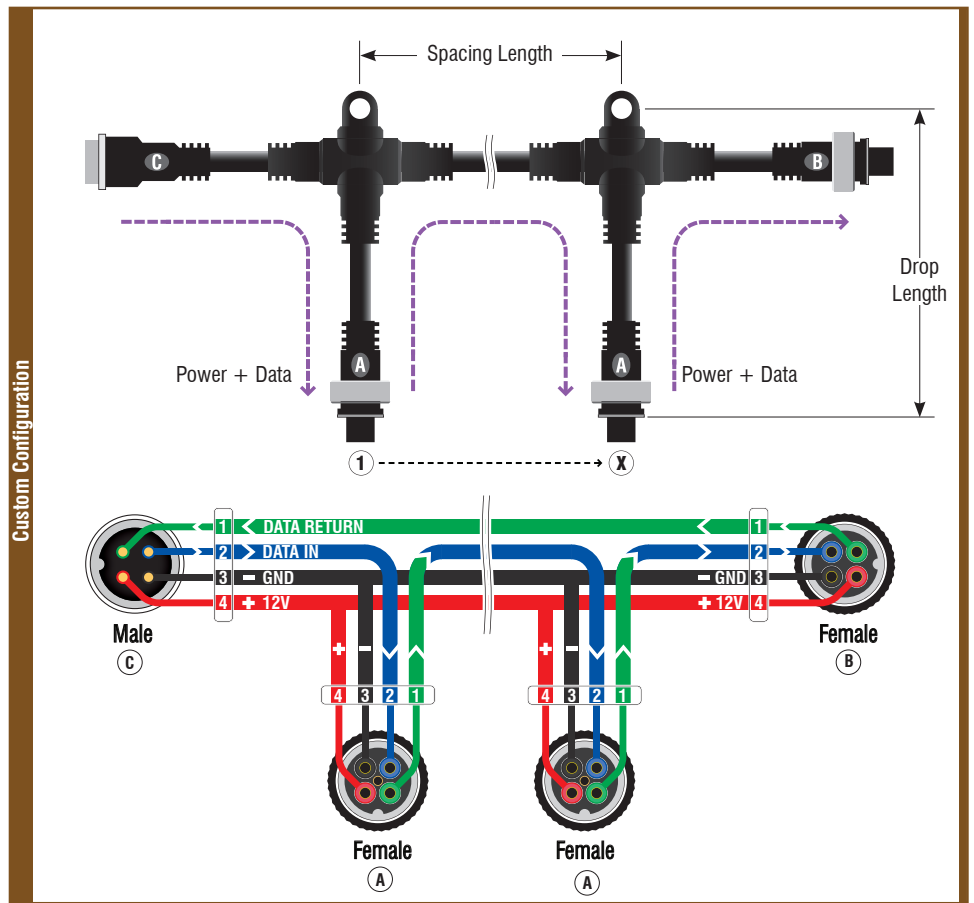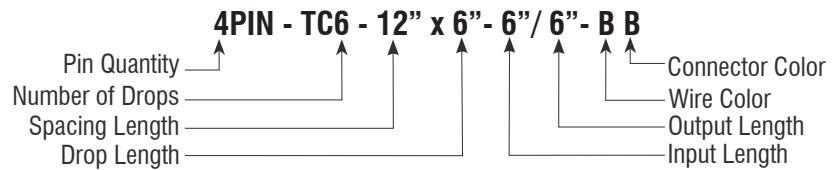| |
|---|
| 4PIN–TC3–24" x 6"- 12"/12"- BB |
| 4PIN–TC5–6" x 6"- 12"/12"- BB |
| 4PIN–TC5–12" x 6"- 6"/6"- BB |
| 4PIN–TC6–10" x 6"- 5"/5"- BB |

*Custom lengths available.

NOTE
T-Connector cable stock changes frequently. Call to confirm availability.

NOTE
The last string of the **A** outputs of the T-Cable must have an end caps **(4PIN–EC or 4PIN–EL)** installed for data to return to the next **A** output, then to **B** output. If the strings attached to **A** are disconnected, data will not return and be sent to **B.**

T-Cable Example Code:

4PIN - TC6 - 12" x 6"- 6"/ 6"- B B

- Pin Quantity
- Number of Drops
- Spacing Length
- Drop Length
- Connector Color
- Wire Color
- Output Length
- Input Length

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.

Revised 07/11/2018