VIVID RGB LIGHTING

TuboRGB Rigid RGB Pixel Tube

Key Features

Double Sided Lighting

5/8in
15.9mm
Thin Housing

Translucent Tube

Encased Electronics

Full-color RGB pixels

IP66 — Dust- and Waterproof

24 — 24 Month Warranty

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

Many Applications

- Theater and Concert Stage Elements
- Trade Shows
- Interior and Exterior Architecture
- Themed Environments
- Nightclubs
- Museums and Art Installations
- TV Production
- Holiday Light Shows

Further Reading

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

www.VividRGBlighting.com

Introducing TuboRGB

TuboRGB is a sleek performer, featuring full 360° visibility of 16 individually addressable RGB pixels. With 32 surface mounted LEDs packed into each crystal clear tube, TuboRGB is ready to rocket colors across your next project. Hang them in formation for an instant double sided screen or randomly for dynamic full color effects. Mount them at any angle and in any pattern to create completely new displays.

Fortified against the elements, TuboRGB is set to sparkle indoors or out and at less than 5/8" in diameter, it virtually disappears.
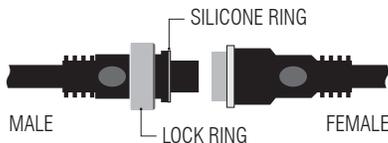
More than just pretty pole, TuboRGB is ready to add sparkle to your next event!
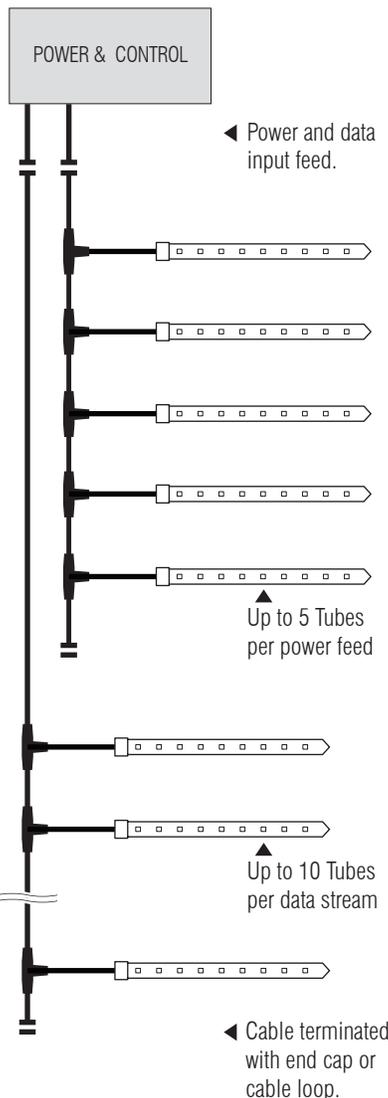
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TuboRGB Rigid RGB Pixel Tube

Connectors

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

SILICONE RING

MALE   LOCK RING   FEMALE

System Overview

POWER & CONTROL

◄ Power and data input feed.

▲ Up to 5 Tubes per power feed

▲ Up to 10 Tubes per data stream

◄ Cable terminated with end cap or cable loop.

Standard Configuration Part Order No. TUBE–16–36"–BB

Each module consists of a .58" diameter tube, 39" long with 16 pairs of RGB LEDs. A 36" black cable with integrated power and control terminated with a 4-pin connector.

Use with T-Connector cables (4PIN-5TC-36").

Crystal clear housing, sealed for maximum fixture life and IP66 rated for outdoor applications.

12V–TUBE–16–36"–BB

.7" Diameter   .58" Diameter

2.4"

39"   36"
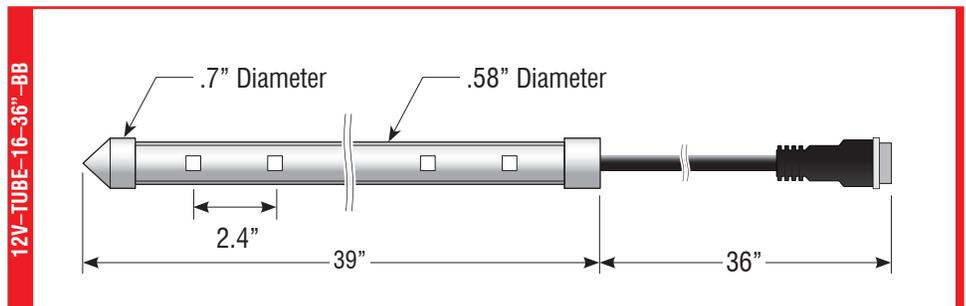
Technical Specifications*

OUTPUT	LUMEN MAINTENANCE	50,000+ hours
	LED CHANNELS	Red, Green, & Blue
	GRAYSCALE	256, 8-bit
ELECTRICAL	INPUT VOLTAGE	12V DC
	POWER	8.00W / Tube
CONTROL	INTERFACE	1-Wire DMX512
	CONTROL SYSTEM	Full range of controllers available, or third-party DMX controller
PHYSICAL	TEMPERATURE RANGES	-20ºC – 50ºC / -4ºF – 122ºF
	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: 20 tubes per configuration
Production Lead Time: 8 weeks after receipt of order

Custom options:
- Tube length
- Pixel spacing / density
- Cable length
- Cable color—black, white, and clear.
- Other options upon request, call for more information.

Revised 09/18/2013

VIVID RGB LIGHTING

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.

TUBE String Power

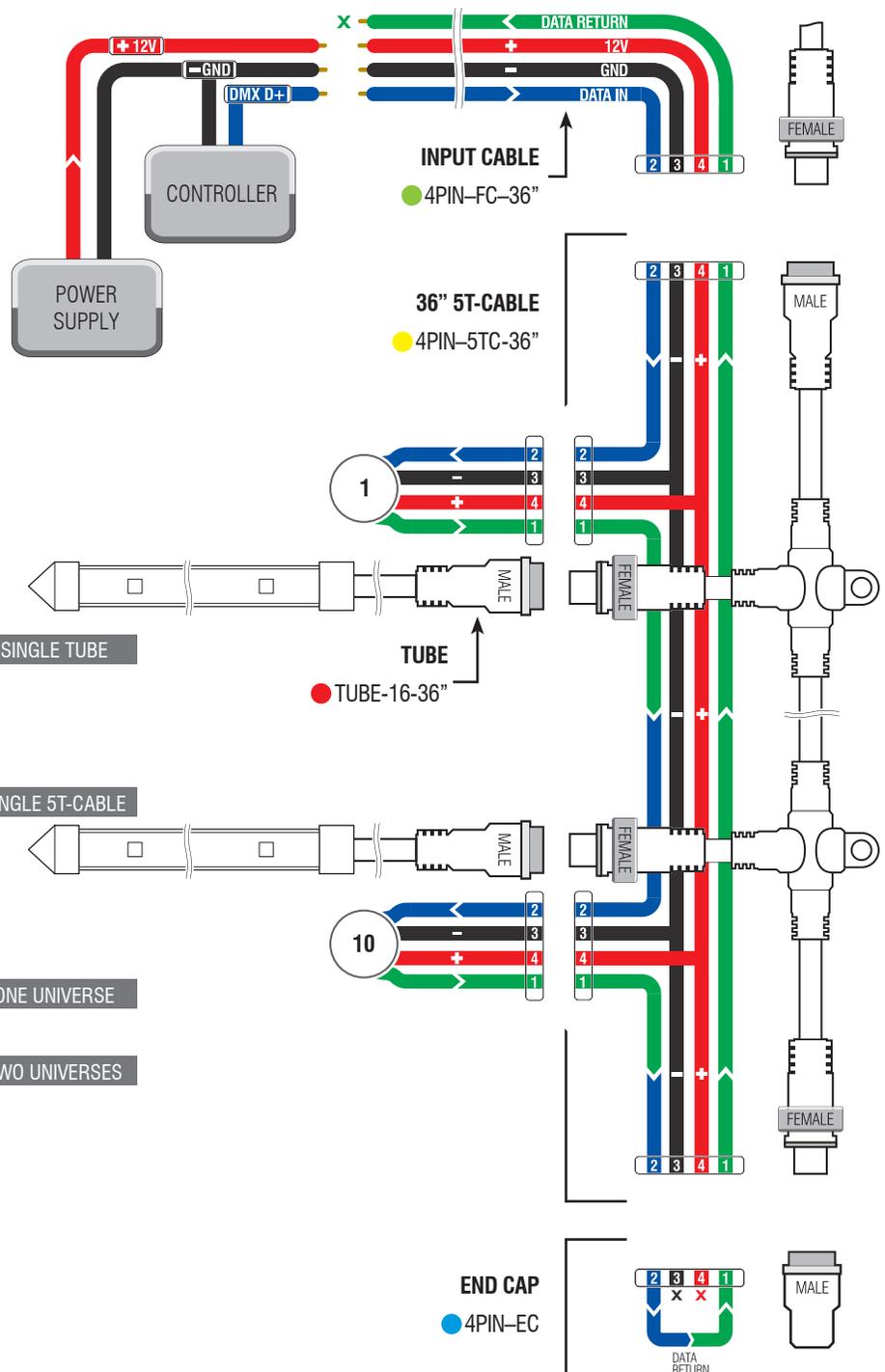Use total watts to determine necessary power supply capacity.

Maximum power draw is 8.00 W per pixel at 12 V DC.

TUBES	AMPS @ 12V	TOTAL WATTS	
1	.700 A	8.00 W	SINGLE TUBE
2	1.40 A	16.00 W	
3	2.10 A	24.00 W	
4	2.80 A	32.00 W	
5	3.50 A	40.00 W	SINGLE 5T-CABLE
6	4.20 A	48.00 W	
7	4.90 A	56.00 W	
8	5.60 A	64.00 W	
9	17.40 A	72.00 W	
10	26.20 A	80.00 W	ONE UNIVERSE
20	35.20 A	160.00 W	TWO UNIVERSES

NOTES

Figures in this chart allow for **5%** headroom.
Typical per-tube wattage is **7.90 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"

36" 5T-CABLE
● 4PIN–5TC-36"

TUBE
● TUBE-16-36"

END CAP
● 4PIN–EC

VIVID RGB LIGHTING

System Accessories
& Part Numbers

TUBE is a **12-Volt** system, compatible with **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.

Power & Data

4PIN–FC–[Length]"

	Pin
DATA RETURN	1
DATA IN	2
GND	3
12V	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]"

Pin	
1	DATA RETURN
2	DATA OUT
3	GND
4	12V

MALE

Extension Cables
Through extension of all pins.

Stock:

4PIN–EXT–60"

4PIN–EXT–120"

4PIN–EXT–300"

That's 5, 10 & 25 Feet.

Custom lengths available.

Power & Data

4PIN–EXT–[Length]"

Pin		Pin
1	DATA RETURN	1
2	DATA THRU	2
3	GND	3
4	12V	4

MALE   FEMALE

NOTES
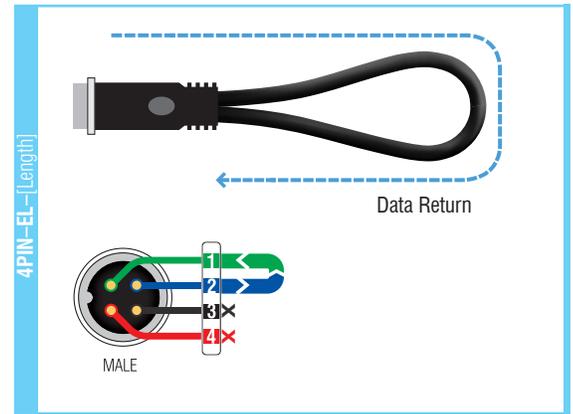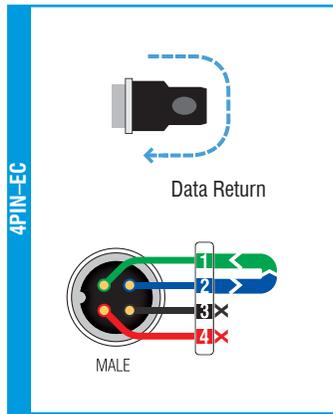Numbers refer to labeled pins in connectors.

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 loop lengths available.

4PIN–EC

Data Return

MALE

4PIN–EL–[Length]

Data Return

MALE

Mid-Feed Power Input

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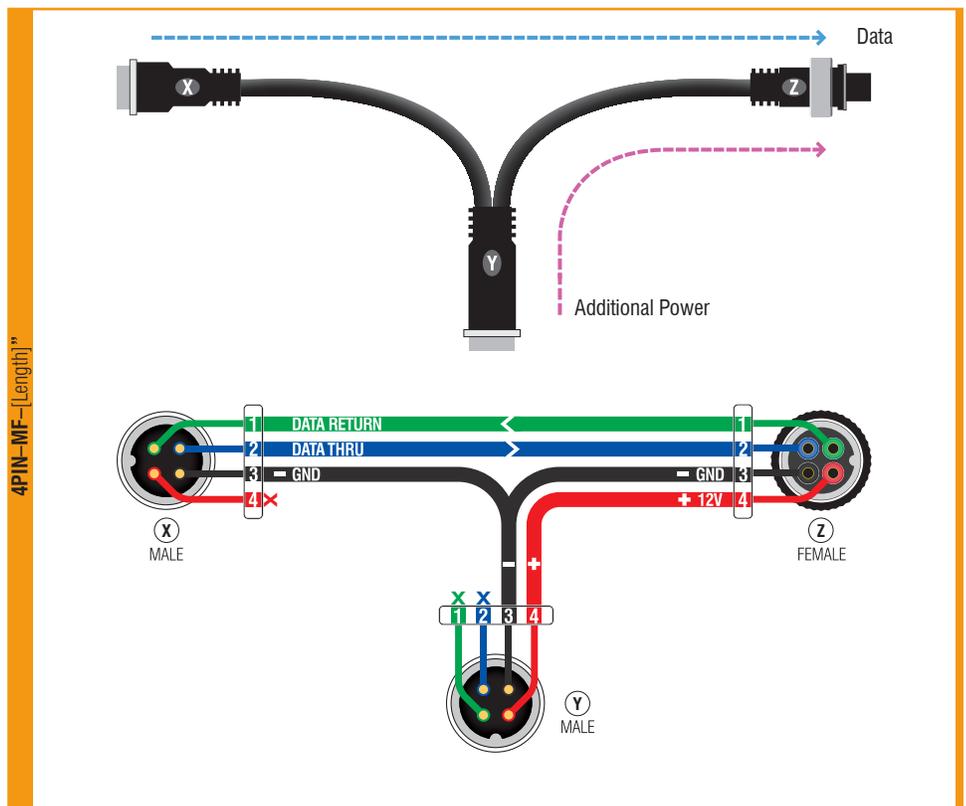
Stock:

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]"

DATA RETURN
DATA THRU
GND
— GND
+ 12V

X
MALE

Z
FEMALE

Y
MALE

NOTES

Numbers refer to labeled pins in connectors.

V-Cables

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

Stock:

6PIN–VC–9"
6PIN–VC–18"
6PIN–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 (**6PIN–EC** or **6PIN–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**.

6PIN–VC–[Length]"

Power & Data

Data Return

Power & Data

DATA IN
DATA RETURN
+ 12V
− GND

MALE
C

FEMALE
A (SEE NOTE)

FEMALE B

T-Connector Power Input

Allows for power and data to be sent to each module.

Stock:

4PIN–TC–6" *

Custom lengths available.

*Shipping November 2013
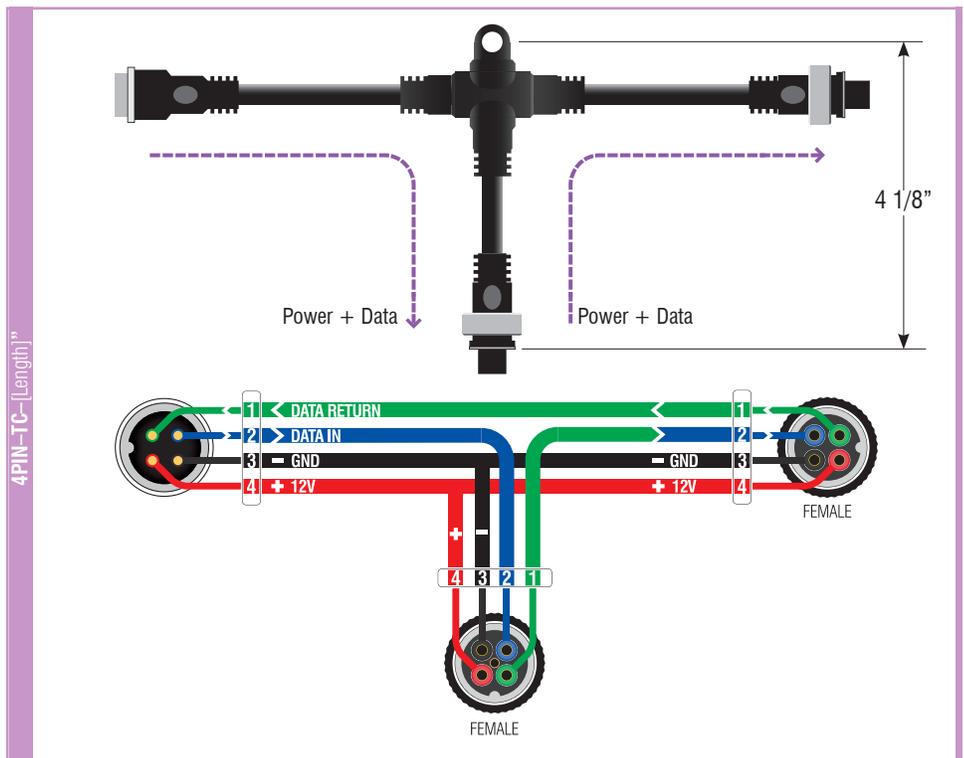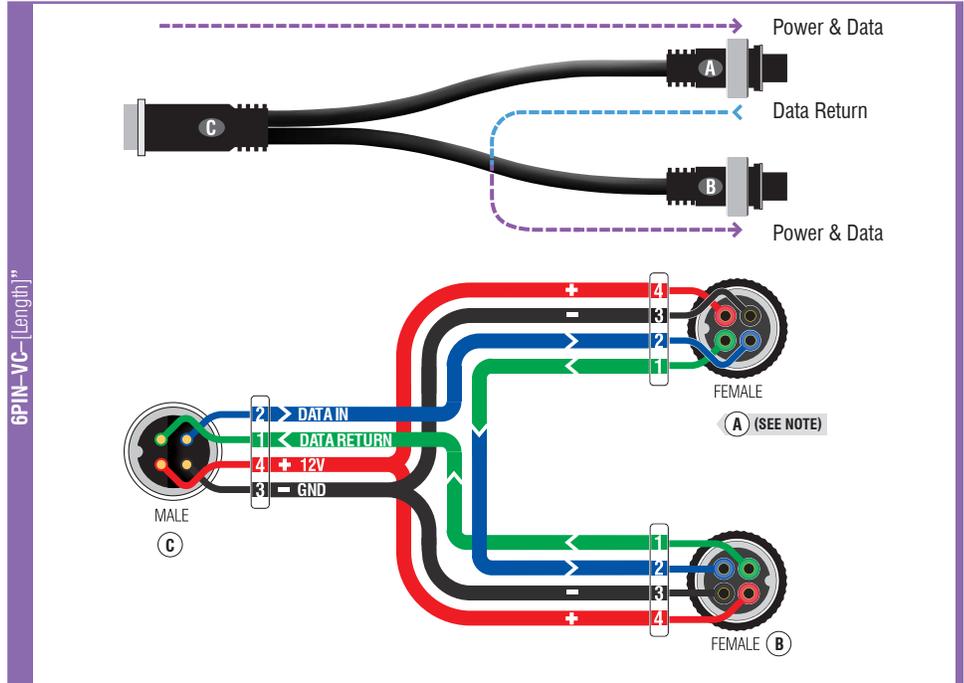
4PIN–TC–[Length]"

Power + Data

Power + Data

4 1/8"

DATA RETURN
DATA IN
GND
+ 12V

GND
+ 12V

FEMALE

FEMALE

NOTES

Numbers refer to labeled pins in connectors.

T-Connector Power Input
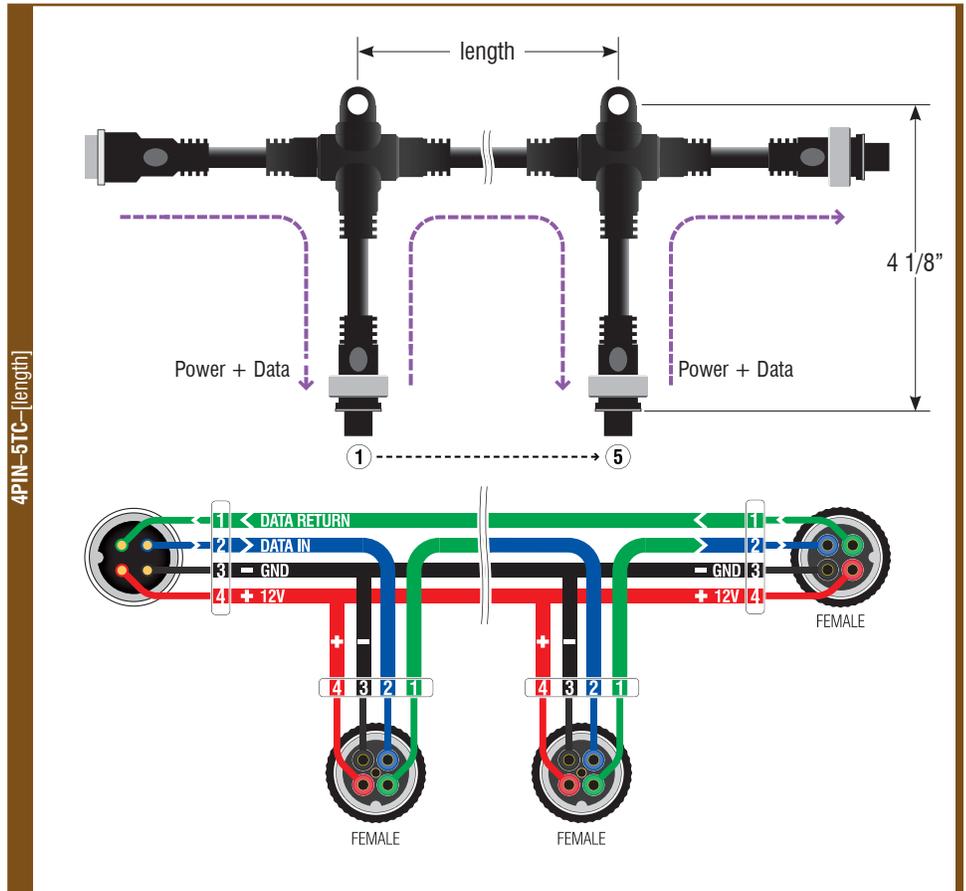Allows for power and data to be sent to each module.

Stock:

4PIN–5TC–36"

Custom lengths available.

length

4 1/8"

4PIN–5TC–[length]

Power + Data

Power + Data

1 ------------> 5

1 DATA RETURN
2 DATA IN
3 — GND
4 + 12V

1
2
GND 3
+ 12V 4

FEMALE

+ —

+ —

4 3 2 1

4 3 2 1

FEMALE

FEMALE

NOTES

Numbers refer to labeled pins in connectors.

Custom / Build-to-Order

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

Important Note

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