IT-SP8R

8 Port DMX512 Splitter with RJ45 Ports

Overview

The IT-SP8R is an ultra-compact 8 Port RJ45 DMX512 Splitter for use with DMX installations wired with Category 5 (CAT5) cabling.

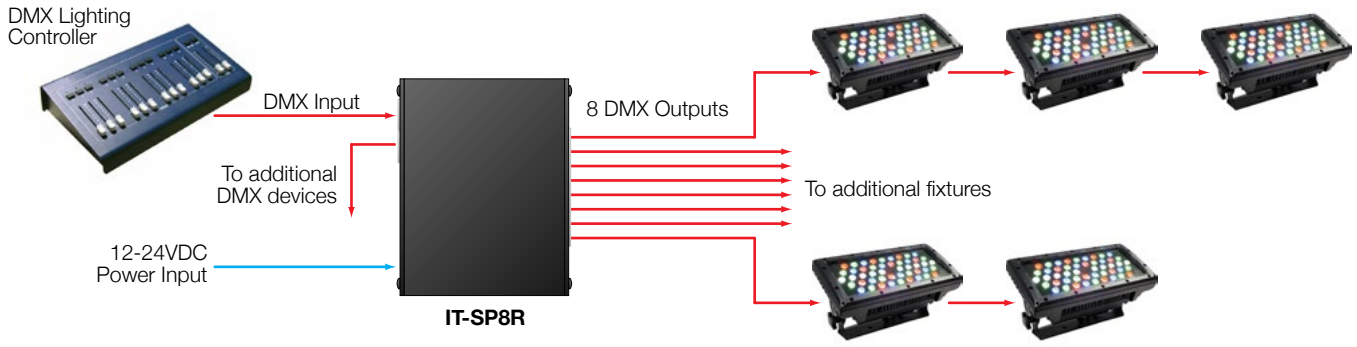
Each output port of the IT-SP8R is an independently protected DMX signal that can be run up to 1,500 feet (500 meters). Since DMX signals cannot be wired in a star network configuration without being re-created by an active splitter, use the IT-SP8R to branch DMX signals out to DMX devices in multiple locations or to extend the 1,500 foot (500m) maximum distance from the DMX source.

The IT-SP8R includes DMX Input and Pass-Thru ports with a handy line termination switch. It also includes a polarity inversion switch that allows the IT-SP8R to internally convert between DMX512 standard wiring and inverted wiring used by Color Kinetics® devices.

Features

- RJ45 Ports for easy connection in DMX systems that use Category 5 cables
- DMX Input and DMX Pass-Thru Ports for daisy-chaining multiple splitters
- 8 Independently generated and protected output ports
- Each port can drive a DMX line an additional 1,500 feet (500 meters)
- Port protection circuitry includes Transient Voltage Suppression (TVS) and Self-Resetting Poly-Switch Fuses to prevent a fault on one port from affecting the Input or other output ports
- Can be used in systems wired for DMX512 or Color Kinetics® devices
- User-selectable polarity inversion for converting between DMX512 and Color Kinetics® wiring schemes
- User-selectable input line termination switch
- Ultra-compact design provides 8 DMX ports in just 14in^2 (90cm^2)

Typical Connection



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Catalog #:	**Project:**
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Configuration

The IT-SP8R has two user-selectable configuration switches:

Termination

The DMX standard recommends that the last device in a DMX chain be properly terminated. If the IT-SP8R is the last DMX device on the DMX network coming from the Lighting Controller, the DMX Termination Switch should be ON.

Polarity

There are two primary wiring schemes used for DMX data being carried on CAT5 cabling -- the "standard" DMX wiring, and a different scheme used by Color Kinetics® products. The IT-SP8R has a switch that can be used to invert the polarity of the data from the Input port to the 8 Output ports. If DMX wiring is used on both the input and outputs, or if CK wiring is used on both the input and outputs, then the Polarity switch should be set to Normal. If the wiring on the Input side of the IT-SP8R is the opposite (DMX-to-CK or CK-to-DMX), then the Polarity switch should be set to Invert.

CAT5 DMX Wiring

The following chart shows the standard DMX512 usage of each conductor on a CAT5 cable, plus how Color Kinetics® products are wired, and how the IT-SP8R is internally wired in order to accommodate both types of wiring.

RJ45 Pinout	CAT5 Conductor	DMX Function (Standard)	CK Function	IT-SP8R Connection
1	White/Orange	Data +	Data -	Data + [See Note]
2	Orange	Data -	Data +	Data - [See Note]
3	White/Green	-	Data Common	Data Common
4	Blue	-	-	-
5	White/Blue	-	-	-
6	Green	-	-	-
7	White/Brown	Data Common	-	Data Common
8	Brown	Data Common	-	Data Common

Note: When the Polarity switch is set to "Normal", the Data +/- signals are passed to the output ports unchanged (as shown in the chart). When the Polarity switch it set to "Invert", the Data +/- signals are reversed when passed to the output ports to effectively convert from the DMX wiring style to Color Kinetics® or vice-versa.

Specifications

Feature	Detail	Description
Power	Input	6-30VDC (2.1 mm DC Input Jack)
Physical	Width	4.29" (109 mm) without mounting flanges 5.51" (140 mm) with mounting flanges
	Length	3.43" (87 mm)
	Height	1.78" (45 mm)
	Weight	10.6 oz. (300 g)
Environmental	Operating Temperature	-40° to 158° F (-40° to 70° C)
	Storage Temperature	-40° to 176° F (-40° to 80° C)
	Humidity	5 to 95%, non-condensing
	Altitude	10,000 feet maximum

Ordering

IT-SP8R	8 Port RJ45 DMX Splitter (includes power supply and mounting brackets)

Photos

Front

Rear

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