SM-SBUS-5W

5-Wire Station Bus Smart Module

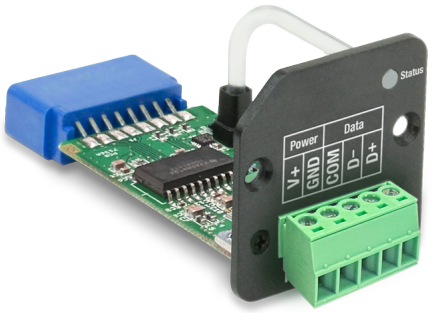
Overview

Smart modules add additional functionality and connectivity to select CueServer 3 models by plugging them into an available module slot.

Use **SM-SBUS-5W** modules to add the ability to connect to 5-Wire CueStation button stations (such as Mystique or Ultra stations).

Additionally, the **SM-SBUS-5W** module also supports alternate protocols including DMX and RS-485 serial. In DMX mode, this module communicates with DMX-based lighting instruments. In RS-485 mode, the module can be used to communicate via RS-485 serial protocols.

The **SM-SBUS-5W** module provides data isolation and protection to help prevent failures caused by ground loops, voltage mismatches, power surges or electrostatic events. The module also provides software-controlled and over-current protected DC power output for the connected stations. A user-selectable termination switch allows configuration of the module to be able to support up to two home-runs of stations. Also, an LED indicator on the module provides at-a-glance operational status.

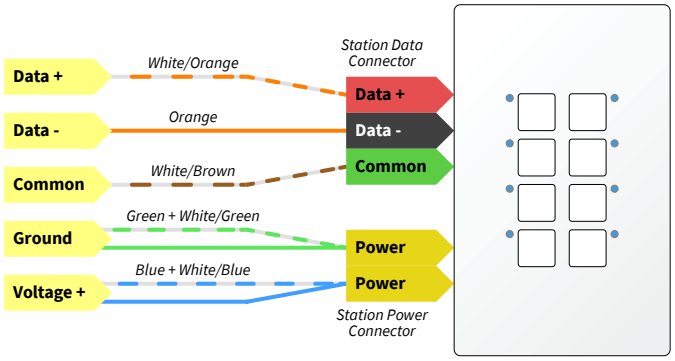


SM-SBUS-5W
5-Wire Station Bus Smart Module

Features

- Full galvanic isolation of the data port for best immunity to ground loops and voltage mismatches
- High ESD protection
- DC output power for stations
- Over-current protection
- Software controlled DC output
- Selectable bus termination for either one or two home-runs
- Additional DMX and RS-485 protocols supported
- Built-in status indicator LED

Typical Customer Wiring



Note: More detailed examples on back.

Ordering

SM-SBUS-5W	**5-Wire Station Bus Smart Module** *Includes 5-position pluggable terminal block*

Specifications

Module Power Requirements	
Off	0.0 W
DMX Input	0.1 W
DMX Output, Station Bus, RS-485 (No Load)	0.3 W
DMX Output, Station Bus, RS-485 (Full Load)	0.5 W

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Catalog #:

Project:

Prepared by:

Date:

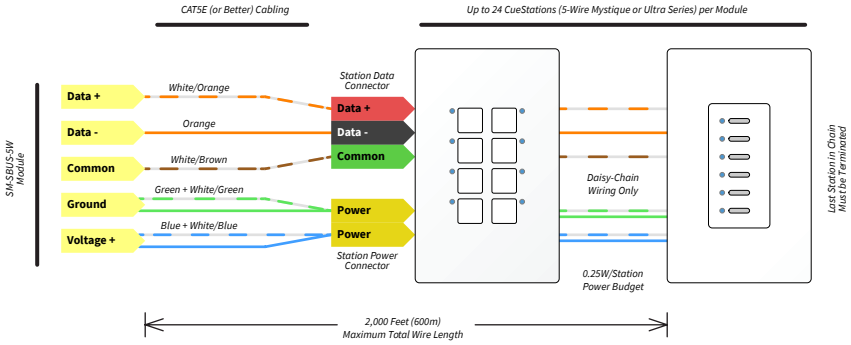
Installation & Configuration

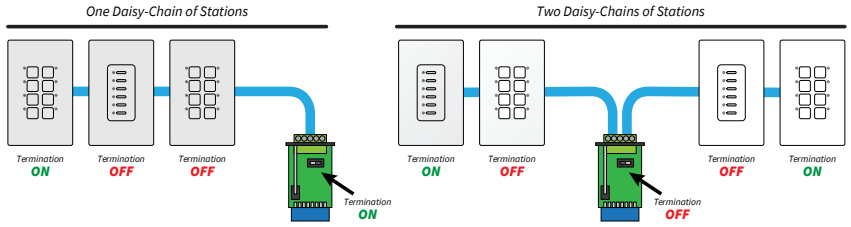
The SM-SBUS-5W module can support Station Bus, DMX and RS-485 protocols, which can be configured in the CueServer Studio software.

Station Bus Protocol

The SM-SBUS-5W module is normally configured for Station Bus protocol using CueServer Studio software. In this mode, the module can be used to directly connect up to 24 individual 5-Wire CueStations (such as Mystique or Ultra stations).

It is recommended to use CAT5E (or better) cable for wiring. When using CAT5E wire, a single conductor is used for each of the data lines and doubled-up conductors are used for each of the power lines, as shown in the diagram. 5-Wire CueStations can only be wired in a “daisy-chain” manner, with the last station’s termination switch turned on. In this configuration, a total of 24 stations and a total of 2,000 feet (600m) of wire length can be fed off of a single SM-SBUS-5W module.

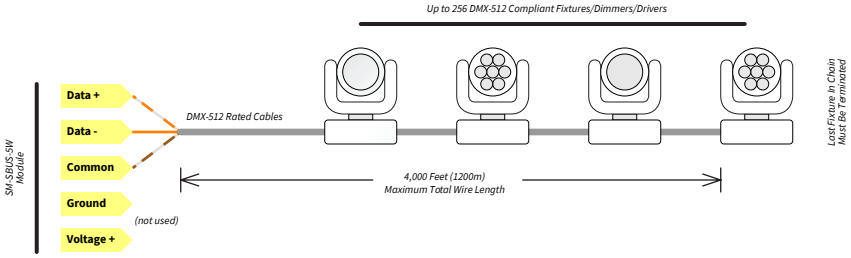




The SM-SBUS-5W module has a user-selectable termination switch. If one daisy-chain of stations is connected, the termination switch must be “ON”. If two daisy-chains of stations are connected, the termination switch must be “OFF”.

DMX Protocol

When using SM-SBUS-5W modules for DMX protocol, the CueServer Studio software can be used to configure each port as either a DMX Input or DMX Output. While in DMX Output mode, use industry standard wiring practices for DMX-512 to connect one or more fixtures, dimmers, or LED drivers to the module. While in DMX Input mode, DMX cabling can connect an external console or controller’s output to the module as an Input.

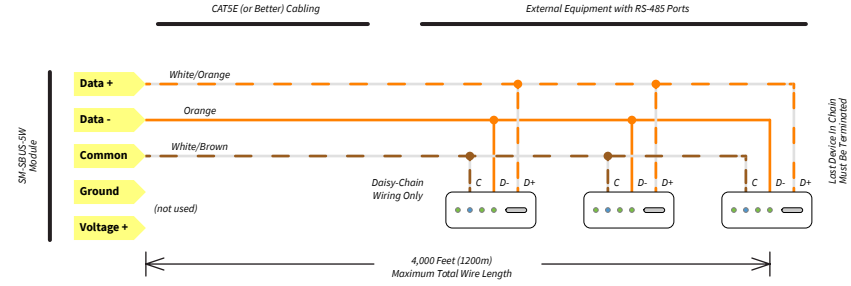


The SM-SBUS-5W module’s Termination Switch must be set to the “ON” position when being used with DMX protocol. The DC voltage output of the module is not needed.

RS-485 Serial Protocol

The SM-SBUS-5W module can be configured for RS-485 serial protocol using CueServer Studio software. In this mode, the module can be used to communicate with external devices that have RS-485 serial ports.

When attaching one or more external RS-485 devices to CueServer, connect all of the “Data +”, “Data -”, and “Common” terminals of each device together. Sometimes Data + is marked “D+” or “A”, and Data - is marked “D-” or “B”.



CueServer Studio can be used to configure the port’s baud rate, data format, and protocol.

The SM-SBUS-5W module’s Termination Switch must be set to the “ON” position when being used with RS-485 protocol. The DC voltage output of the module is not needed.